

Alchemist of the Avant-Garde

THE
CASE
OF

MARCEL DUCHAMP

WANTED



\$2,000 REWARD

For information leading to the arrest of George W. Welch, alias Bull, alias Pickens, etcetry, etcetry. Operated Bucket Shop in New York under name HOOKE, LYON and CINQUER. Height about 5 feet 9 inches. Weight about 180 pounds. Complexion medium, eyes same. Known also under name RROSE SELAVY

JOHN F. MOFFITT

alchemist
of the
avant-garde

SUNY series in Western Esoteric Traditions

David Appelbaum, editor

alchemist of
the avant-garde

THE CASE OF MARCEL
DUCHAMP

John F. Moffitt

state university of new york press

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Marcel Duchamp, *The Large Glass*; Marcel Duchamp, *Portrait du Docteur Dumouchel*, 1910; Marcel Duchamp, *Le Printemps*, 1911; Marcel Duchamp, *La Mariée mise à nu par les Célibataires, meme*; Marcel Duchamp, *Terminological*, Plan of the *Large Glass*, 1915–1923; Marcel Duchamp, *Tu m' . . .*, 1918; Marcel Duchamp, . . . *tant donnés: 1° la chute d'eau*, Interior, 1946; Marcel Duchamp, . . . *tant donnés: 1° la chute d'eau*, Exterior, 1946, © 2002 Artist Rights Society (ARS), New York / ADAGP, Paris / Estate of Marcel Duchamp

Man Ray, *Marcel Duchamp as Rose Sélavy*, 1920–1921 © 2002 Man Ray Trust/ Artist Rights Society (ARS), New York / ADAGP, Paris

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Dedico lo siguiente a

Juan Antonio Ramírez:

además de ser excelente intérprete de Marcel Duchamp,
fuiste tu quién me defendieras de los ataques provocados por mi
violación metafórica de cierta dama del Levante
(c'est à dire, ma bagarre d'Atocha).

On dédie aussi cet ouvrage à

Anni Laurian:

dame parisienne (pas d'Elche) qui m'a offert
les dictionnaires et traités
français essentiels sur l'Argot et l'Alchimie.

Thanks too to

Kent Lowry and Jack Rummel,

skillful editors of a text judged far too long by my
(unnamed but) knowledgeable Three Outside Readers,
otherwise enthusiastic for these iconoclastic revelations.

Sur Marcel Duchamp:

“A man's life is his image.”

(Oscar Wilde)

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Voilà la direction que doit prendre l'art: l'expression intellectuelle, plutôt que l'expression animale. J'en ai assez de l'expression 'bête comme un peintre'.

— Marcel Duchamp, 1946

All in all, the creative act is not performed by the artist alone; the spectator brings the work into contact with the external world by deciphering and interpreting [it].

— Marcel Duchamp, 1957

Si j'ai fait de l'alchimie, c'est de la seule façon qui soit de nos jours admissible, c'est-à-dire sans le savoir.

— Marcel Duchamp, 1959

D'ailleurs, c'est toujours les autres qui meurent.

— Marcel Duchamp, 1968

(tombstone epitaph, Cimetière Monumental de Rouen)

AVIS AUX LECTEURS

In order to make this volume available at an affordable price—and so that it might actually get *read*—the illustrative materials had to be rigorously limited. Since reproductions of Duchamp's works are widely published, preference was given to the kind of literally esoteric illustrations that must be unknown to nonspecialist readers. Accordingly, a reference in my text to “MD-69” signifies “catalogue entry number 69”—with the corresponding illustration—in Jean Clair's standard 1977 publication of Duchamp's complete oeuvre. Additionally, as cited in the notes, all references to publications are shortened with full details of name, title, place, etc. in the bibliography. Unless otherwise indicated, all translations are mine.

The estate of Marcel Duchamp notes that the *Marcel Duchamp Catalogue raisonné* by Arturo Schwarz is a more recent catalogue.

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INTRODUCTION

prosecuting the Duchamp case

In the postmodern age, in which structuralist theory reigns and claims of artistic autonomy are countered with New Historicist assertions of cultural embeddedness, ideology is believed to create the visual manifestations we call “style,” and the artist is often considered an almost passive instrument, who records the intellectual fashions of his or her time and place. In this context critics usually are more concerned with the interpretation of intrinsic content than with descriptions of its formal, literally superficial manifestations. As postmodernists we are especially driven to reexamine critically the assumptions about social reality through which modernism and modern artists constructed themselves. A case in point is the legendary career of Marcel Duchamp (1887–1968).

If you are not already aware of the Duchamp legend, a quick glance at the bibliography will apprise you of the quantity of publications dealing with this singularly emblematic figure.¹ The excessive number of titles indicates that there is indeed a burning “Duchamp Question.” Some idea of the reasons for this editorial avalanche is revealed by the title belonging to one of the more recent testaments, *Marcel Duchamp: Artist of the Century*.² Why yet another volume on this quintessential exemplar of the avant-garde, this acknowledged millennial luminary? Hewing to Duchamp’s own instructions (as quoted in his epigraph), “to bring [his] work into contact with the external world by deciphering and interpreting,” what follows is an attempt to explain this artist’s career as a whole. I shall do so by sequentially “deciphering and interpreting” his artworks as a more or less coherent series of illustrations largely arising from the traditional, now culturally marginalized, philosophical system of hermeticism.

Already there are excellent studies organizing Duchamp’s production according to broad thematics. Outstanding among these are Linda Henderson’s

monograph on modernist fourth-dimensional experiments (1983), Craig Adcock's analyses of Duchamp's geometrical obsessions (1985), Juan Antonio Ramírez's exhaustive identifications of the artist's erotic and mechanical metaphors and their iconographic counterparts in popular culture (1993), and, most recently, Henderson's superb examination of contemporary scientific contexts for the *Large Glass* and related works (1998). These are four innovative yet credible efforts. Overall, the current situation is best summed up by Amelia Jones: "The Readymade Duchamp is made to mean anything (or everything) to everyone."³ Regardless of how we evaluate it, the production of commentary on Duchamp's contribution to our postmodernist condition has become a cottage industry among academics, critics, artists, and other socially marginalized groups.

My interpretation proposes Hermeticism as the principal topic organizing Duchamp's operational philosophy, with the corollary that Alchemy provided a substantial amount of his iconographic source-materials. This philosophical framework of hermeticism does not in any way exclude previously advanced arguments demonstrating Duchamp's involvement with esoteric geometry, overt eroticism, pseudoscience, and auto-engendering. By linking such seemingly disparate conceptual concerns to an identifiable, overriding philosophy, the hermetic argument in fact complements and even enhances their individual applications.

My thesis is not new in the Duchamp bibliography. The idea that alchemy informed Duchamp's art has been bruited about for some time—long enough to be routinely disparaged by currently-designated experts.⁴ Will the forthcoming evidence be viewed objectively? Can the results be fairly evaluated as an intellectual problem? Among other foreseeable animadversions, my clarification of Duchamp's reversion to alchemical iconography does not accord with the academically approved picture of modernist originality, itself a creation myth, like alchemy itself. Surely the mythic Marcel, our Artist of the Century, this paragon of intellectual high-mindedness, the designated seigneur of "The Castle of Purity,"⁵ would never stoop so low as to dabble in such foolishness as medieval pseudoscience. Outrage on the part of the Duchamp ministry is predictable. But the issue of originality only matters if one piously considers the Duchamp case to be a challenge to the status of Art and artistic genius, both being exalted since the romantic era. To successfully evaluate Duchamp's work for our postmodern age, it is necessary to deeply question, if not abandon, such outdated Romantic preconceptions about the sanctity of Art and the originality of Artistic Genius. To perform a successful autopsy, the forensic surgeon should have no vested interest in his cadavers.

Although the alchemical interpretation may have surfaced verbally as early as the 1930s, it was initially pursued in print by Robert Lebel, who published the first biography of Marcel Duchamp in 1959. Lebel's query about a generalized alchemical orientation in the master's work drew a now

famous rebuttal from Duchamp. Lebel framed his question as follows: "Signs are not lacking, from the incontestably initiatory character of his thought and works, based on the consistent use of a secret language, a symbolism of forms and a system of numbers. . . . Given a man who surrounds himself with secrecy, who obviously follows a rule, who sets for himself exhausting tasks, which he makes certain shall bring him neither glory nor profit and which he suddenly abandons for no apparent reason, would we not be justified in looking for some connection with alchemy?" The artist replied, "If I have practised Alchemy, it has been so in the only way that it might be allowed in our times, that is, *sans le savoir*" (that is, without knowledge).⁶ This apparent denial calls forth another question: *sans le savoir* of whom, the operator, or his audience?

Among those who have followed Lebel's lead and advanced the alchemical thesis are Arturo Schwarz (1970), John Golding (1972), Jack Burnham (1974), Maurizio Calvesi (1975), Ulf Linde (1977), and John Moffitt (1983, et seq.). Long familiar with such publications, Duchamp's family members reiterate his claim to hermetic ignorance. His late widow, Alexina (Teeny), said that Duchamp used the phrase *sans le savoir* in the ordinary sense of "without being conscious of it." Paul Matisse, the editor of Duchamp's posthumously published *Notes* (1980), stoutly affirmed that his stepfather had no interest whatsoever in esoteric knowledge.⁷ In a roundtable discussion in 1987, the academic doyens of Duchamp studies similarly rejected the alchemical thesis.⁸ According to Francis M. Naumann, "It is doubtful that alchemy had anything to do with the formation of his approach to art [;] it is my feeling that Duchamp's disclaimer should not be treated lightly." Herbert Mölderings's denial was more emphatic: "Duchamp's was, I think, a kind of poetic language, but nothing alchemical: I'm not open to that." Rosalind Krauss vividly observed the "hermeneutic babble" generally associated with Duchamp studies, and described the "frustration in Duchamp scholarship about 'master-keys' for unlocking or decoding the work, keys like alchemy, à la [Arturo] Schwarz." Craig Adcock added, "I don't see much alchemy in Duchamp [whose] casual references . . . to those kinds of mystical sources may have been intended to mislead us a little bit or to put scholars onto the wrong track." The idea of the artist possibly misleading his exegetes was further amplified by Jean Suquet: "Duchamp's declaration of faith was never to repeat himself. But what did he do throughout his life? He did nothing but repeat himself! . . . With Duchamp there is a fundamental contradiction which is always active." Indeed, Duchamp's deceptions are legion. A number of them have been recently exposed to scholarly scrutiny,⁹ and even more will be uncovered in what follows here.

One scholar present at the 1987 colloquium did acknowledge the possible merits of the alchemical thesis. William Camfield said, "I have never been a believer in the alchemy issue myself. I have been a befuddled disbeliever for many years. But more recently I have been having second thoughts:

I'm wondering if there might not be a possibility for a much more reasoned discovery of alchemical matters, in 1912 and earlier. It seems to me that's really an unexplored area of Duchamp scholarship. . . . Alchemy *was* a subject of interest to people in the 1890s, the epoch of Symbolism; to some extent, Duchamp came out of that. . . . It strikes me that alchemy is the one aspect of Duchamp studies which has not been subjected to rigorous study." Citing the egregious example of the published work of Jack Burnham,¹⁰ Camfield provided an eloquent explanation of why serious scholars should reject such esoteric interpretations. If they are taken seriously, Camfield observed, Duchamp's work then becomes "engulfed in a freewheeling interpretation that stirs together aspects of Alchemy, the Cabala, Freud, Tarot cards, and all the gods of structural linguistics, from Ferdinand de Saussure to the present."¹¹

Nevertheless, Burnham did usefully emphasize one significant point about the hermetic endeavor: "The aim of every skilled hermeticist is not to lie, but to veil his messages in themes so obscure or universal that the possibility of a true identity is never apparent to the public."¹² Put otherwise, for those operating within this historical vocation, mendaciousness was both obligatory and honorable. Although typically Burnham does not cite any historical evidence for his argument about why a would-be Alchemist-Artist never confessed to his real pursuit, abundant documentation attesting to the validity of this assertion does exist and will be cited here.

A further caveat follows regarding my skepticism toward a prestigious Duchamp legend. Paradoxically, this attitude of detachment is itself quintessentially Duchampian. Shortly before his death, Duchamp told Calvin Tomkins, "I'm afraid I'm an agnostic in art. I just don't believe in it with all the mystical trimmings. As a drug, [art] is probably very useful for a number of people, very sedative, but as a religion it's not even as good as God." Duchamp would have been the first to admit that he himself was, likewise, "not even as good as God." Speaking further of *l'art* "as a [modernist] religion," Duchamp also rightly saw that such implicitly uppercase (and upper-class) Art "has absolutely no existence as veracity, as truth. People always speak of it with this great religious reverence, but why?"¹³ Likewise, people typically speak of and write about Marcel Duchamp "with this great religious reverence"—but why?

Given my own distaste for that theoretically overcharged hermeneutic babble typically attached to the Duchamp scriptures, I have opted for a more banal strategy, following the earthbound precedent of legal proceedings. My mode of address, moving perhaps inelegantly from A to Z, is modeled upon that of a prosecuting attorney (which trick I learned by watching "Law and Order," and which I recommend to all postmodernist academics as a needful reality check). Like a D. A. doggedly pursuing a conviction, I shall present one document after another, and another, and then yet another. We have been made, alas, all too familiar with this seemingly interminable procedure,

thanks to the widely reported trials of O. J. Simpson. In the end, those judicial examinations, so intensely scrutinized by millions of video voyeurs, proved the sheer irrelevance of nearly all tangible physical evidence in the face of tribalized prejudice. With that baleful example in mind, instead of extended technical explanations of, for instance, DNA problematics, this case presents as material evidence innumerable citations from the amply stocked literary laboratory of Hermeticism (for quick reference, see the two entries for “terminology” in the Index).

Linda Henderson has recently (1998) observed the characteristic procedural pitfall in previously published alchemical interpretations of the Duchampian oeuvre, including mine: “All previous discussions of the subject miss completely the primary context for renewed interest in alchemy in the pre-World War I period—its association with radioactivity.”¹⁴ Drawing in large measure from her own published research on this essential context, the startling scientific revelations of Duchamp’s youth, I will address (in chapters 2, 4 and 7 especially) the contemporary problem of various pseudoscientific analogies posited by the neo-alchemists of the avant-garde. Another persistent interpretive problem Henderson mentions is the fact that “the notion of Duchamp as practicing alchemist grew out of the milieu of late Surrealism—and was never rooted in any historical examination of alchemy in the early twentieth century.” Accordingly, chapter 2 is devoted to a historic examination of the much earlier, *fin de siècle*, “Invention of the Modern Alchemist-Artist.”

Additionally, I will exhaustively examine one of the other issues Henderson chooses not to address in her otherwise thorough monograph, namely what she calls “the allegorical dimensions of the *Large Glass* project.” As she observes, “the poet Apollinaire, Duchamp’s compatriot in this period, touted allegory as an appropriate form for the modern writer or artist [saying] ‘Indeed, our brain can hardly conceive of compound things except through allegories.’”¹⁵ Allegorical form, obviously of fundamental significance, will be fully dealt with in chapters 4, 5, 6, and 8. In so doing, I hope to address the critical lacunae, pointed out by Dieter Daniels in 1992, in the work of certain interpreters who “operate only with formal, iconographic resemblances, without however questioning Duchamp’s historical, contemporary sources or influences.”¹⁶ These shortcomings, and a careful review of some three decades of published hermetic speculations, lead Daniels to his skeptical conclusion: “In any event, surely Alchemy does *not* provide the ‘universal key’ to be found in his work.”¹⁷

So what does? Unquestionably, the real issue is the correct identification of “Duchamp’s historical, contemporary sources or influences.” Besides the obvious artistic influences, Duchamp was certainly aware of other contemporary cultural currents, including widely reported scientific discoveries, and their modernist counterparts in occultist pseudoscience. Esoteric speculation was a widely consumed, popular phenomenon. Therefore, to be plausible, I

will give preference to those esoteric texts, particularly alchemical, that would have been available in easily accessible French-language editions during Duchamp's youth. These provide the "formal, iconographic resemblances" which support the case of Duchamp's alchemical endeavor. The Symbolist-era scriptures of high Occultism, typically little studied by art historians, additionally set the historical precedent for that "master-key" (*Hauptschlüssel*) approach to Duchamp that has proved so abhorrent to postmodernist champions of a wholly non-esoteric Artist of the Century. In this regard, valuable evidence appears in the ambitious subtitles attached to two widely read "master-key" and "scientific" classics of fin de siècle Occultism, namely, Helena Blavatsky's *Isis Unveiled: A Master Key to the Mysteries of Ancient and Modern Science and Theology* (1877), and Papus's all-inclusive *Traité Élémentaire de Science Occulte, mettant chacun à même de comprendre et d'expliquer les théories et les symboles employés par les anciens, par les alchimistes, les astrologues, les kabbalistes*. (1888; rev. ed. 1897).

Those esoteric incunabula, now a century or more old, resemble the Duchamp everyone acknowledges. This is the Duchamp who questioned the validity of quantitative science by contrasting to it essentially unquantifiable, quasi-spiritual values—but who knows whether he did so with irony or sincerity? Since he operated *sans le savoir*, by his own admission his stance was literally *agnostic*: "without knowledge," that is, without the complete cosmic kind of knowledge. Rather than being presented pre-cooked, according to Jungian or New Age recipes, these telling, self-described "master-key," scriptural exhibits will be quoted at some length, even if their all-embracing voice and their breathless style are typically obscurantist. As revived during Duchamp's youth, occultist syncretism characterized a distinctively modernist neo-Alchemy which was widely discussed during the Symbolist period, a point easily demonstrated by reference to the most representative publications of the era in France.¹⁸

At the outset I must admit to a figurative jury, the readers, that the evidence is largely circumstantial in nature. Nonetheless, since it is abundant, in essence equally iconographic *and* textual, is generally coherent and contextually complementary, once assembled in an orderly fashion it supports a formidable case. According to Webster, circumstantial evidence is that "evidence that tends to prove a fact by proving other events or circumstances which afford a basis for a reasonable inference of the occurrence of the fact at issue." In this case, the evidence must be circumstantial because: 1) we do not have a signed confession by the accused, only his informal, equivocal, verbal denials; 2) no eyewitnesses or self-confessed accomplices have yet come forward testifying to having seen the perpetrator actually at work in his alchemical laboratory. In fact, it was to Lebel, his designated biographer, that the accused long ago officially entered his "not guilty" plea to the charge of having repeatedly operated as an alchemical *artifex*.

The prosecutor must foresee other exhibits that have already been cited by the defenders of a non-esoteric Duchamp. In 1959, just after he issued his supposedly airtight denial to Lebel, Duchamp was questioned by mail about his alchemical endeavors by yet another admiring inquisitor. In his written reply (August 19, 1959) to Serge Stauffer, Duchamp appears to declare that he had never read any “treatises on alchemy,” which “must prove quite inadequate.” Then he argues that “one can not ‘do alchemy’ as one can, with an appropriate language, ‘practise law or medicine.’ But one can not ‘practise alchemy,’” he concludes, “by throwing words around, or on the surface in full consciousness.”¹⁹ This, too, seems an ambiguous reply.²⁰ In fact, the only straightforward declaration here is that one concerning “les traités d’alchimie que je n’ai lus jamais,” and this was evidently because those, the ones that he had never bothered to read, “doivent être bien inadéquats.” But “quite inadequate” for what purposes? A major burden upon the prosecution is to show this particular statement to be, at best, equivocal and probably mendacious. In order to do so, we must present evidence demonstrating that the accused surely read those kinds of publications. As these alchemical treatises eventually demonstrate, perhaps Duchamp really was truthful in declaring that those particular “treatises on alchemy [which he] had *never* read” must have indeed been those that he clearly recognized to be “bien inadéquats.”

On the other hand, we have some other peripheral but pertinent evidence to show the jury in order to argue the case for Duchamp’s apparently life-long involvement with the Esoteric Tradition. One piece of evidence is the recollection by Pierre Cabanne, who published an extended series of *Dialogues* with the artist, testifying that “there *were* books on the occult in Marcel Duchamp’s New York studio” in 1967, the year before his death.²¹ Unfortunately, when Cabanne was later questioned about this observation by letter, in 1985, he could recall no specific titles. Pursuing other fugitive clues, I shall call forth various statements by Duchamp describing the painter as a medium. His kind of artistic medium functions like those once officiating at a Victorian-era spiritualist séance: he appears as an emblem of creative automatism, a passive instrument for otherworldly voices and superior inspirations received from on high. One of these acknowledgments was made by Duchamp in 1958: “Rational intelligence is dangerous and leads to ratiocination. The painter is a medium who doesn’t realize what he is doing. No translation can express the mystery of sensibility, a word, still unreliable, which is nevertheless the basis of painting or poetry, like a kind of alchemy.”²²

On the other hand, when asked by an American reporter in 1966 whether a retrospective exhibition of his art perhaps represented a “gigantic leg-pull,” Duchamp laughed and suggested, “Yes, perhaps it *is* just one big joke.”²³ Admittedly, Duchamp rarely disagreed with his inquisitors, accepting

tacitly whatever anyone had to say about his work. Paul Matisse recalled that, “for him, agreement was the way he kept his freedom[:] for him to argue against another’s idea was to get caught up in it, just as surely as if he had promoted it himself.”²⁴ His wife Teeny later recalled that not only did Duchamp fail to enlighten his interviewers, but that “he would rather have them be put off in the wrong directions.”²⁵ Dieter Daniels cites a major example of his various deceptions, even mendacity: his denial in his last decade of his life of the existence of any further cache of Notes pertaining to the central *Large Glass* project. One batch, the *White Box*, was actually published in 1966, two years before his earthly demise.²⁶

One of Duchamp’s own artworks may now be regarded both as an example of a gigantic leg-pull and as a kind of covert self-confession of intentional duplicity. His last American ready-made, evidently a *pièce d’occasion*, appeared in 1923, just before he returned to France. He created a “wanted” poster, to which he affixed his own passport photos (MD-134).²⁷ The reward was \$2000—exactly the amount just paid by Katherine Dreier for his acknowledged central masterpiece, the *Large Glass* (MD-133: 1915–1923), a work which Duchamp left officially unfinished (*inachevé*) in 1923. In this ready-made poster, including his self-portraits (profile and full-face), Duchamp affected an alias, one less well known than the infamous “Rose Sélavy” (who shall be properly identified in due course). In this instance, the reward was posted for “Information leading to the arrest of George W. Welch,” who had “Operated Bucket Shop in New York under the name HOOKE, LYON, and CINQUER.” Following a physical description, the poster states that the culprit was “Known also under the name RROSE SELAVY.” As defined by Webster’s dictionary, a *bucket shop* is an illicit “place for making bets on current prices of stocks, grain, etc., by going through the form of a purchase or sale with no actual buying or selling”; accordingly, *bucket* signifies “to cheat; swindle.” According to Calvin Tomkins, “there is a sad sort of irony in this farewell appearance as a petty crook.”²⁸ It is more than irony: one who “welches” is “a petty crook” who slyly takes in his duped client-victims, *hook, line, and sinker*, which, says Richard Brilliant, “describes the sucker’s [Dreier?] complete acceptance of the confidence man’s line,” that is, Duchamp’s bucket-shop swindle.²⁹

If Duchamp did knowingly practice Alchemy, but only did so as “just one big joke,” what kind of alchemist might he have been? Again, the evidence is oblique. Several times Duchamp said that, rather than actively pursuing painting, all he did was “breathe.” On one such occasion, in 1954, Duchamp was pressed by Michel Sanouillet to state his profession. His evidently exasperated reply was, “Why are you all for classifying people? What am I? Do I know? I am a man, quite simply a ‘breather.’”³⁰ In French, besides *respirateur*, a “breather” is a *souffleur*, and one out of breath (or out of luck) is *à bout de souffle*. But *souffleur*—“puffer” in English—was a commonplace term of opprobrium in traditional alchemical literature. In short, this kind of

puffer-chemist is one who makes “one big joke” out of hermetic science. This point was explained by Albert Poisson in his *Théories et Symboles des Alchimistes* (1891). According to Poisson,

In effect, there are two kinds of Alchemists. The *souffleurs* are people deprived of theory, and so they operate randomly [as it were, “*sans le savoir*”]. While it is true that they too are looking for the Philosopher’s Stone, they do so in an empirical manner. At other times they work for industry, making soap, faking precious gems, and producing acids, alloys, colors; this is the group that gave birth to the chemists. These are the ones who sold for money the secrets of making gold. Charlatans and swindlers, they have made counterfeit coinage, and there’s been more than one *souffleur* who was hung from the golden scaffold, which is the punishment reserved for this sort of imposter.³¹

The next exhibit is much more to the specific point. The American conceptual artist Robert Smithson recalled: “I met Duchamp once, in 1963, at the Cordier Ekstrom Gallery [in New York]. I said just one thing to him; I said, ‘I see you are into Alchemy.’ And he said, ‘Yes.’”³² A bit later, a young artist, Lanier Graham, presented a chess set he designed to the master; flattered by Graham’s sympathetic interest, early in 1968 Duchamp allowed him to record a series of conversations, which Graham later transcribed and published as a pamphlet. In the course of these, Graham posed a provocative question: “May we call your own perspective Alchemical?” For once, the elusive artist’s answer was more or less to the point:

We may. It is an Alchemical understanding. But don’t stop there! [Laughing.] If we do, some will think I’m trying to turn lead into gold back in the kitchen. Alchemy is a kind of philosophy, a kind of thinking that leads to a way of understanding. We also may call this perspective “Tantric” (as Brancusi would say), or (as you like to say) “Perennial.” The Androgyne . . . [for example] . . . is universal. The Androgyne is above philosophy. If one has become the Androgyne [see fig. 20], one no longer has a need for philosophy.³³

Unfortunately, that single remark, made only in passing, is as close as one is ever likely to get to a frustrated prosecutor-scholar’s elusive “smoking gun.” No further explanations will be forthcoming from Duchamp himself one way or the other, because he is dead. Now he belongs to that disinterested forensic surgeon.

Since the comments just quoted represent the only testimony by the defendant that deals directly with the controversial issue of his alleged involvement with Alchemy, the rest of this case must be prosecuted with evidence other than his depositions. Notwithstanding the two apparent disclaimers from

Duchamp, plus a lone emphatic affirmation, a skeptical district attorney has nonetheless decided to go to trial with the evidence at hand. There are too many coincidences, suspiciously close alignments between Duchampian scenarios and motifs and their equivalents in traditional alchemical terminology and iconography. There is also the matter of Duchamp's affiliation with Walter Arensberg and Katherine Dreier (see chapter 5), whose occultist interests are curiously passed over in Duchamp literature. They were acknowledged and committed champions of esoteric research and, after 1915, Duchamp's munificent patrons, closest friends, professional collaborators, even accomplices. In the case of Arensberg, not only did he own an extensive library of publications dealing specifically with hermetic philosophy and alchemical iconography, he even published at his own expense (with appropriate illustrations) his explanations of the same esoteric materials which, I argue, fascinated Marcel Duchamp.³⁴

At book's end, it will be up to the jury to decide the relative merits of this particular case. It should then be clear that no longer can we routinely dismiss the alchemical argument. Alchemy does not represent the totality of Duchampian meaning, but it should be henceforth granted that it does represent a significant factor in Duchamp's poetic operations. If this point is allowed, then Alchemy must be given credit, even be honored, for its key role in the formation of the eulogized Duchampian endeavor. While the results presented here admittedly do not constitute scientific certainty, they do arguably provide more evidentiary coherence than has previously been seen in most Duchamp monographs searching for that ever-elusive interpretive master key. In this application, Webster defines *science* as "knowledge or a system of knowledge concerning general truths or the operation of general laws, esp. as obtained and tested through scientific method." For the art historian, these arguments are presented as a would-be *Kunstwissenschaft*, literally "art-science," materialist history with "repeatable results" for other researchers. The argumentative basis is a judicial methodology based on the discovery of diverse material evidence in Duchamp's oeuvre pointing to a logical substructure, according to which the various, apparently disparate components exhibit credible, evolving contextual sense and a sequential logic, all producing in the end verifiable findings.

This case study opens with a recital of the cultural and intellectual context of the artist's early life. Then a brief biographical sketch establishes clear evidence of precedent, as relates to the legal issues of *opportunity*, *means*, and *motive*.³⁵ The chapters following carefully recover and identify specific instances of hermetic phraseology and myriad alchemical motifs embedded in Duchamp's texts and images (again, see the entries for "terminology" in the Index). These exhibits reflect the same prosecutorial tactics used in model case studies of any so-called Artist of the Century, for instance Albrecht Dürer.³⁶ Just as sequential revelations of the circumstances of Dürer's manipu-

lations of his contemporary cultural sources served to illustrate certain historical peculiarities generally defining the Renaissance, so too might something similarly useful emerge for Modernism by reexamining, in terms of *postmodernist* art-science, the scrambled dossiers on Marcel Duchamp. In fact, rather than Duchamp, perhaps the really important issue exhumed here is the nature of some forgotten historical sources, now a century old, originally propelling *avant-garde* modernism.

Now let the evidence regarding Duchamp's interest in the occult be heard, finally and in all of its pertinent, if somewhat mind-numbing, detail. May this evidence now be judged completely and justly by those readers who are genuinely interested in understanding Duchamp's work in its broadest modernist context. Like other modernist artists working before World War I, and who are now recognized to have incorporated aspects of occultism into the creations, so did Duchamp. As is argued here, his allegiance was more narrowly focused upon hermeticism and its alchemical iconography.

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an esoteric French
adolescence for Duchamp:
symbolist culture and occultism

Born in 1887, by the time a twenty-eight-year-old Marcel Duchamp left France for America in mid-1915, his career as an artist was already distinctively shaped. Before describing culturally pertinent specifics of his biography in chapter 3, we need to examine the distinctive cultural environment in which he absorbed his first perceptions of reality and art. The period-term for this milieu is *Symbolism*, designating the avant-garde culture reigning in France between 1880 and 1905. This is the true cradle of Modernism. As such, it requires serious consideration, especially since Symbolist thought, as we shall see, was itself profoundly influenced by Occultism in general and (as treated in chapter 2) Alchemy in particular. Such terms, given their quasi-religious status, were then often capitalized—so was “Art.”

A general appraisal of the evolution of modern culture after the French Revolution would have it that after the “Age of Reason” came the “Age of the Irrational.” The Age of the Irrational is still very much with us, and even though the current appellation refers to a “New Age”—but there is nothing at all new in the Occultists’ “Ancient Wisdom.” In a more specific sense, after the Age of Reason (which probably was only reasonable in certain, aristocratic quarters) came the Industrial Revolution, presenting its own painful paradoxes. As man advanced to greater mastery of the physical world, his always precarious hold upon the more intangible aspects of his relationship with the universe begin to slip. Security—mental, physical, financial and, especially, spiritual—seemed menaced on every side by analytical positivism and the social unrest brought about by the new economic systems. Romanticism, the cultural matrix of the period after 1800, aggravated the situation further. On the one hand, there was a widespread taste for the dramatic and

unreal *vie des rêves*, or dream-life. On the other, there was an obsessive concentration upon the self. This emotional individualism typically manifested a heightened, even hysterical insistence upon the overwhelming importance of the individual's every action. Historians and anthropologists universally accept that in circumstances of anxiety and uncertainty, superstition is likely to make a prominent showing. Its modern advocates, however, will not (or cannot) call it that; rather it is referred to as "esoteric knowledge," even "metaphysics."

Nineteenth-century France also produced the idea of the *avant-garde*. It is appropriate that the term, now standard in English and German, was originally French. It was borrowed from military usage, where it designated a sort of cavalry action, an armed reconnaissance, a perilous and fugitive sweep behind the front lines directly into enemy territory. In the first known statement using "avant-garde" to specifically refer to an advanced, contemporary art, the term designated radical activity operating concurrently in both the social and the artistic realms. This utopian association, to which a clear messianic connection was added, was to become a commonplace in twentieth-century art theory. According to Henri de Saint-Simon (*Opinions littéraires*, 1825), "It is we artists who will serve you as an *avant-garde*. . . . The power of the arts is in fact most immediate and most rapid: when we wish to spread new ideas among men, we inscribe them on marble or on canvas. . . . What a magnificent destiny for the arts is that of exercising a positive power over society, a true priestly function, and of marching forcefully in the van of all intellectual faculties."¹ *Nomen est omen*: the larger program impelling the militant-esoteric front of the *avant-garde* is at once pseudo-militaristic, revolutionary, utopian—and mystical.

In 1845, a little-known Fourieriste, Gabriel-Desiré Laverdant, published an equally little-known treatise, *De la mission de l'art et du rôle des artistes*. Laverdant's is a precocious proclamation of the initiatory function of art, so transforming it into a prognostic instrument for radical social action leading to moral reform for society at large. According to Laverdant,

Art, the expression of society, manifests, in its highest soaring, the most advanced social tendencies: it is the forerunner and the revealer. Therefore, to know whether art worthily fulfills its proper mission as initiator, where the artist becomes truly of the *avant-garde*, one must know where Humanity is itself going, know what the destiny of the human race actually is. . . . Along with the hymn to happiness [the advanced artist pictures] the dolorous and despairing ode. . . . To lay bare with a brutal brush all the brutalities, all the filth, which are the base of our society, this is the mission of the *avant-garde* artist.²

In a related development, the nineteenth-century *fin de siècle* was the epoch in which self-styled modern art was first vigorously and successfully marketed

by savvy entrepreneurs. These venturesome art dealers typically described themselves as “enlightened” and “visionary.” Theirs was a self-appointed altruistic mission of displaying contemporary artistic expression for the public good, and their notions of spiritual enlightenment became central to the emerging dogma of avant-gardism.³

For art historians, the major interest of the Symbolist period lies in the fact that it was the first time that modernist principles of abstraction in the plastic arts became solidly entrenched in published theoretical treatises. Although a bias towards modernist abstraction remains largely unquestioned even now, a century later, the situation was quite different before 1890. Before the last decades of the nineteenth century, the traditional functions of Art, defined broadly as being true to life and faithful to nature, had not been questioned in their fundamental assumptions since the close of the Middle Ages. Retrospectively viewed, Impressionism represented a climax of the reigning naturalistic tradition and, immediately following, Symbolism changed all that in a most decisive fashion. This is the age referred to in a book that Duchamp is now known to have studied assiduously: Wassily Kandinsky’s *Über das Geistige in der Kunst* (1911).⁴ The Russian mystic artist said he was writing at a post-Symbolist threshold of “the great epoch of the Spiritual, which is already beginning, or, in embryonic form, had already begun yesterday.” The Symbolist period says Kandinsky, “provides and will provide the soil in which a kind of monumental work of art must come to fruition.” For Kandinsky and his fellow believers, truly spiritual art would necessarily be abstract, with abstraction being the visible sign of an artist’s ethical retreat from the material world. Kandinsky did not invent this dematerialized art: he was merely one of its more verbal spokesmen. He was also not the first to pursue nonobjective imagery: one historical precedent was set by pioneering, now mostly forgotten, automatic paintings created by Victorian-era spiritualists (discussed in chapter 4).

According to recent scholarship,⁵ the critical shift in the appearance of the plastic arts, beginning around 1875, was signalled by a decisive movement from naturalism to abstraction. This crucial shift was as much a matter of intrinsic content as it was of extrinsic form. After 1875 artistic content more often than not paralleled the verbal content of treatises belonging to the Esoteric Tradition. The strictly physical significance of abstraction for the Symbolist/modernist painter was made unmistakable in a famous dictum expressed by Maurice Denis in 1890. According to this often-repeated protomodernist slogan, “It is well to remember that a picture—before being a battle horse, a nude woman, or some anecdote—is essentially a plane surface covered with colors, assembled in a certain order.”⁶ For the Symbolists, besides representing a certain assemblage of autonomous motifs, abstraction also embodied a preference for symbolic over phenomenal color. In this sense, the move towards pure abstraction signals a preference for signs over

physical perceptions, and amorphous psychic moods (*Stimmungen* in Kandinsky's terminology) over the banal facts of direct observation.

For this further development, again Denis is an eloquent spokesman; as he wrote in 1909, "emotions or spiritual states, caused by any spectacle, bring to the imagination of the artists symbols, or the plastic equivalents. These are capable of reproducing emotions or states of the spirit without it being necessary to provide the *copy* of the initial spectacle." According to the considered conclusion of Maurice Denis, "thus nature can be, for the artist, only a state of his own subjectivity. And what we call subjective distortion is virtually style."⁷ Such emotional, spiritualist stylistic phenomena, arising from "subjective distortion," were directly tied to certain fundamental, sweeping changes in basic metaphysical beliefs held by visual artists. As one troubled century merged into another, the new metaphysical systems were, naturally, reflective of similar ideological shifts apparent among most other classes of the European intelligentsia. The more strictly modernist equation, "Abstraction = Spirituality," was, for instance, early drawn by Paul Gauguin; in a letter sent from Pont Aven in 1888, he simply stated that "ART IS AN ABSTRACTION." According to Gauguin, "creating, like our Divine Master, is the only way of rising toward God."⁸

Insistence upon the sacerdotal essence of modern art was a notion first widely popularized in published Symbolist art theory.⁹ With perhaps different nomenclature, the self-inflating idea—the Artist as Priest and Prophet—is still very much with us. In recent memory, perhaps the most egregious example was the widely acclaimed performance art practiced by Joseph Beuys (1921–1986), who happily called his significance-charged artistic "mission" that of an ancient "shaman," but whose activities were labeled by some less sympathetic, professional observers as representing mere "Jesus-Kitsch."¹⁰ This earnest performance by a radical avant-garde artist of his self-appointed messianic vocation, at least within twentieth-century art, is now a largely conventional manouever. It is also nothing new within the broader span of the history of art. Indeed, the provocative idea of God-like artistic creation appears to have been commonplace within classical literary theory. However, the real situation was otherwise. According to E. R. Curtius,

Ancient Greece put the poet in the category of "god-like men," alongside heroes, kings, heralds, priest, seers. . . . [Nonetheless,] the Greeks did not know the concept of the creative imagination. They had no word for it. What the poet produced was a fabrication. Aristotle praises Homer for having taught poets "to lie properly" (*Poetics*, 1460 a, 19). For him, as we know, poetry was *mimesis*, "imitation," and indeed "imitation of men doing something" (*Poetics*, 1448 a, 1). Imitation can [only] present things as they are or as they appear or as they ought to be (*Poetics*, 1460 b, 10–11), hence is not to be understood as a copy of nature but instead as a rendering which can be a refashioning or a new fashioning.¹¹

Nonetheless, modernist manifestations of the messianic artistic mission abound. In 1913, Guillaume Apollinaire stated that the understood goal of Cubist painters was “to express the grandeur of metaphysical forms,” to which end “they discard more and more the old art of optical illusion and local proportion.” This collective drive to abstraction “is why contemporary art . . . possesses some of the characteristics of great, that is to say, religious art.”¹² In 1914, Franz Marc proclaimed the fact of “our European desire for abstract form,” adding that this kind of “art is our religion, our center of gravity, our truth.”¹³ In 1920, Paul Klee declared that “art is a simile of the Creation,” and due to the opportune intervention of the modern artist, “out of abstract elements a formal cosmos is ultimately created.” Moreover, this new abstract-formal picture is so “similar to the Creation that to turn an expression of religious feelings, or religion itself, into reality a breath is sufficient.”¹⁴

Besides unilaterally designating himself to be a divinely inspired Creator, the modern artist also envisions himself to be a Prophet: he foresees the shape of the future and, typically by means of the abstract spirit, he leads the people, who are implicitly compliant, towards the promised utopia. Wassily Kandinsky boldly proclaimed this prophetic-messianic function of the modern artist in 1911: “The abstract spirit takes possession first of a single human spirit; later it governs an ever-increasing number of people. At this moment, individual artists are subject to the spirit of the time [*Zeitgeist*] which forces them to use particular forms related to each other and which, therefore, also possess an external similarity,” wholly abstract in this case.¹⁵ Apollinaire said much the same thing in 1913: “Poets and artists plot the characteristics of their epoch, and the future docilely falls in line with their desire. . . . The energy of art imposes itself on men, and becomes for them the plastic standard of the period. . . . All the art works of an epoch end up resembling the more energetic, the more expressive, and the most typical art-works of the period.”¹⁶ In 1915, Daniel-Henry Kahnweiler spoke of Pablo Picasso as an artist who is “possessed of the divine gift, genius,” and who likewise provides “proof that the appearance of the esthetic product is conditioned in its particularity by the spirit of the time. . . . The artist, as the executor of the unconscious plastic will of mankind, identifies himself with the style of the period, which is the expression of this [collective] will.”¹⁷

Again, the immediate historical source for the now ubiquitous, orthodox modern theory of the God-like, creator-artist myth is Symbolist art theory. The prophetic obsession is then obvious, and particularly we have the well-known example of a group of young Symbolist painters, tending towards precociously abstracted figuration, who collectively called themselves *les Nabis*, “the Prophets.” Their role model was Paul Gauguin. These artists—Sérusier, Denis, Bonnard, Ranson, Roussel, Vallatton, and others—surely knew that, besides “prophet,” the old Hebrew word *nabi* variously connoted

priest, protoguru and shaman, prognosticator, deliverer-redeemer, magus, dream interpreter, seer, and the divinely designated author and spokesman for Yahweh-God (see I Samuel 9:9, 19; 10:1, 6–13, 25). For further confirmation of the artist's polyvalent nabi-prophet identity, we have in 1888 the precedent of Gauguin's abstract, divine creation. Thus, it seems fitting that Gilbert-Albert Aurier would refer to Vincent van Gogh in 1892 as "a terrible, maddened genius, often sublime, sometimes grotesque, always near the brink of the pathological." That trait of "maddened genius" was, of course, positive; even more so was the mad Dutchman's world-mission, as "a messiah, a sower of truth, one who would regenerate the decrepitude of our art, and perhaps of our imbecilic and industrial society, [for] he has delighted in imagining a renewal of art."¹⁸

In his formulative study of imaginative literature between between 1870 and 1930, *Axel's Castle* (1931), Edmund Wilson asserted that the ideas developed in the often underrated Symbolist period had, in effect, propelled the course of creative thought long after its putative demise. Accordingly, Wilson found ongoing symbolist literary effects and themes in such post-Symbolist writers as T. S. Eliot, Ezra Pound, Marcel Proust, Gertrude Stein, James Joyce, and a host of others. In his comprehensive listing of the post-Symbolists, Wilson also included the visual artists then affiliated with dadaism ("a queer special development of Symbolism") and Surrealism, and all other modernist art movements, "piercing together poetic mosaics . . . to include quotations from, allusions to other levels of reality." These artists then were practicing the typically early modernist compositional techniques of collage and assemblage. Wilson summed up this ongoing Symbolist doctrine as follows:

Every feeling or sensation we have, every moment of consciousness, is different from every other; and it is, in consequence, impossible to render our sensations as we actually experience them through the conventional and universal language of ordinary [experience]. Each poet [and artist] has his unique personality; each of his moments has its special tone, its special combination of elements. And it is the poet's task to find, to invent, the special language which will alone be capable of expressing his personality and feelings. Such a language must make use of symbols; what is so special, so fleeting and so vague cannot be conveyed by direct statement or description, but only by a succession of words, of images, which will serve to "suggest" to the reader.¹⁹

Something very similar had been conceived during the Symbolist era, itself a period notoriously fascinated with hermetic languages, by a thinker with no particular artistic or occultist inclinations, the Swiss linguist Ferdinand de Saussure (1857–1913).²⁰ He stated that any successful attempt to communicate ideas requires a "system of conventions," by which means what was

originally mere noise for the listener (or just a colored blob for the painter's viewers) becomes intelligible as part of an agreed-upon system of signs. Saussure's "sign" unites, through cultural convention, the *signifiant* (signifier) and *signifié* (signified). Both coexist as symbiotic components of the Saussurian Sign. In retrospect, Saussure's linguistic analysis represents another attack on the positivist distinction between the objective, physical reality of objects and events and an individual, subjective perception of reality. Saussure and his Symbolist contemporaries in the emerging social sciences (for instance, Sigmund Freud and Émile Durkheim) bridged this gap.

According to Saussure, social reality is conventionalized by an agreed-upon system of collective norms that organize essentially subjective representations of the world. Representations give meaning to disparate communicative acts. Saussure's evolving theories led him to postulate the future existence of a "science of signs," one which long afterward would become emblematic of postmodernist thought: semiology. As was only briefly suggested in Saussure's posthumously published *Cours de linguistique générale* (1916), he had earlier received the first glimmerings of "a science which would study the life of signs within society. . . . We call it *Semiology*, from the Greek *semeion* ('sign'). . . . This procedure will not only clarify the problems of linguistics, but rituals, customs, etc. will, we believe, appear in a new light if they are studied as signs."²¹

Saussure was just one contemporary advocating new systems of relations, that is, expressions of interactive formal strategies by which a whole series of disciplines, from physics to painting, radically transformed themselves at the crucial hinge between the nineteenth and twentieth centuries.²² An erudite contemporary's retrospective summation of what seemed to be transpiring, in effect a significant shift in focus from objects to relations, is Alfred North Whitehead's *Science and the Modern World* (1925). Looking back over what seemed to constitute a newly entrenched modernist perception of the world around him, Whitehead recognized that "this new tinge to modern minds is a vehement and passionate interest in the relation of general principles to irreducible and stubborn facts [now] absorbed in the weaving of general principles. It is this union of passionate interest in the detailed facts, with equal devotion to *abstract generalization*, which forms the novelty in our present society." One clear symptom of the new mentality was "that the adequacy of scientific materialism as a scheme of thought for the use of science was endangered [and particularly] the notion of *mass* was losing its unique pre-eminence [in favor of] the notion of *energy* being fundamental. . . . But energy is merely the name for the quantitative aspect of a structure of happenings." In this topsy-turvy world, exclaims Whitehead in reviewing the theory of relativity, "Heaven knows what seeming nonsense may not tomorrow become demonstrated truth!" As defined by Whitehead, who was not addressing any particularly modern notion of art, "to be abstract

is to transcend particular concrete occasions of actual happenings [involving] consideration of the nature of things antecedently to any special investigation into their details. Such a standpoint is termed ‘metaphysical.’” Indeed! Overall, Whitehead concludes that “the old phraseology is at variance with the psychology of modern civilizations. This change in psychology is largely due to science, and it is one of the chief ways in which the advance of science has weakened the hold of the old religious forms of expression.”²³

In the voluminous critical and esthetic debate that surrounded Symbolist innovations it was always the traditional vocabulary of the Esoteric Tradition that best served to define the new aspirations. The Esoteric Tradition, or Occultism, is the mass cult which is hidden (*occulta*, from *occulere*, to cover over, hide, conceal). Occult precepts can be easily documented in the oldest surviving esoteric texts, some dating from the Hellenistic period. This tradition includes the *Corpus Hermeticum*, a collection of metaphysical tracts written in the first through fourth centuries A.D. that describes Alchemy, the “science” of transforming common metals into gold. The historical conditions governing repeated outbreaks of the Esoteric Tradition are diverse. As a rule, however, the common starting point of Occultism seems to be anxiety, particularly the kind induced by abrupt technological and social change. Occultism represents a more or less natural human psychological reaction to unsettling times. The nineteenth century clearly was such a period, and the Esoteric Tradition was a fundamental influence on the development of Symbolism. Accordingly, key phrases in the standard lexicon of Symbolist art theory include the occultist paradigms of an Artist-Priest, the Infinite, the Transcendent, High Consciousness, Metaphysical Insight, Correspondences, Synaesthesia, and so forth. Art is, therefore, for the Symbolist Artist-Theoretician functionally a religious art, and the concrete visual sign of its pseudoreligious intention is abstraction.

The historical situation of the Esoteric Tradition visibly infected all levels of Occidental modernism. The late James Webb (1946–1980) was the most accomplished historian of the Esoteric Tradition and the author of a monumental study collectively called *The Age of the Irrational*. As he repeatedly emphasized, Occultism has always been of particular interest to the modern artist. Arising from his sense of bohemian and/or avant-garde alienation, the eventual result, stated Webb, was for the artist to take on the more positive “stance of the elect race.” As Webb further recognized, this haughty pose is a functional parallel to the perennial “need among Occultists to appear especially alert.” Webb concluded,

Another group which proclaimed itself “elect” was that of the Artists. . . . Because of the juxtaposition of Occultist and Artist in Bohemia, occult teaching became the source to which the priests of this, one of the several secular religions, most easily turned. The two traditional patterns of redemption—the pursuit of the Beautiful, the Good,

representing the search for Divine Union, whilst the descent into the Abyss is the alchemical process, the progress through the Mysteries, trial by ordeal—these became translated into terms of Art; but also of the Artist's life. Without these traditional bases, the mythical figure of the Artist would not be as it is popularly conceived. . . . There has always been something of the magical in the work of the artist. The ability to conceive and execute personal worlds, conceptual, visual, abstracted, is, by definition, out of the ordinary. . . . In any case, because Art itself had become a religion, the Artist naturally acquired the status of priest. . . . The Artist was at liberty—indeed compelled—to treat the standards of the world as if they did not exist.²⁴

Webb further draws a wider conclusion regarding the relation between what he aptly calls the “Occult Establishment” and the contemporary art establishment. “Illuminated Art derives from Occultism,” Webb asserts, “and much modern art is indirectly illuminated, or directly ‘occult.’” Webb then points out that “this alliance began in Paris in the 1890s, when the Occult Revival coincided exactly with the Symbolist movement, and the Symbolists drew a great part of their inspiration from the Occultists. Occult theories resulted in the conception of the Artist as a saint and a magician, while his art became less and less representative of ordinary reality and hinted at things ‘beyond.’” At this point, Webb again underscores the crucial role of the Symbolists and their *fin de siècle* art and theory in the formation of those attitudes which still characterize much of elitist modernism. According to Webb, “from this departure of the Symbolists, from the universe of agreed discourse for private or superior worlds, has sprung the tampering with ‘everyday’ reality which has become so central a feature of modern art. Naturally, similar developments were going on elsewhere, just as the reaction against the tyranny of Reason occurred in other places. But Paris remained the hub from which the magic influences radiated, the center of artistic and occult experiment.”²⁵ The Esoteric Tradition and the Symbolist milieu in Paris prove to be the major context for the evolving thought and future art of Marcel Duchamp.

For further definitions of the most significant features of the modern Esoteric Tradition, we are considerably in the debt of a leading student of the occult content of Symbolist-period literature, John Senior. Senior's findings may be summarized as follows, with uppercase emphasis added to the larger metaphorical-metaphysical verities (i.e., buzzwords).²⁶ True Believers in the Esoteric Tradition hold that the Universe/Cosmos represents a single, eternal, ineffable substance. As the Occultists, ancient and modern, would have it, this universal substance uniquely manifests itself to clairvoyants in certain privileged ways. Besides “cosmic energy,” especially common are perceptions of “spirit,” generally perceived as fire or light, or some other kind of luminosity. Such subphysical emanations of Light/Spirit are further taken to repre-

sent manifestations from On High, from a variously named Universal Creator, Demiurge, or Logos, sometimes simply labeled “The One.” As is typically explained, all things progress or “evolve,” and are mainly comprehended by means of dialectical, paired opposites: male-female, light-dark, vertical-horizontal, etc. The goal of the Occultists is to arrive at Equilibrium or Harmony, thus achieving what the medieval hermeticists had called a *coniunctio oppositorum*, a “marriage of the opposites.” As an apparently logical extension of such dialectical perceptions, Occultists endlessly affirm that “things above are as they are below,” meaning that Mind and Matter become One. As the True Believer holds, all religions are just variations on a single, transcendent, now lost, primordial Unity. Occult knowledge of the One represents what the Occultists call “Timeless Wisdom,” what was called in the Renaissance a *philosophia perennis*, which, like a universal solvent, cannot contain any single definition of itself.

According to these ubiquitous thought patterns, only the Imagination is real. Given this, any analogy conceived by the unchecked Imagination is as valid as any other pseudoscientific proof of metaphysical Correspondence between material (base) reality and the (superior) Other World, a concept influentially articulated by the eighteenth-century Swedish seer Emanuel Swedenborg. According to this conventionalized system of parallelisms, mind and matter are one, things above are as they are below, the Imagination is truly reality itself, and so forth. However one arrives at the realization of the latent (*occulta*) Correspondences, it is accepted that Man lies at the center of occultist thoughts. The human body is, accordingly, taken to represent the particular sign of Creation in the widest sense: the perceptible operations of the universe, the macrocosm, are often symbolized in the shape of a living man, a microcosm. Since men and women are created by sexual means, then it logically follows that the sex act—the microcosmic image of Creation—is both a divine sign and a gift from On High (*au delà* in the terminology of modern French esotericism). As an attribute of the Divine, neatly dividing itself into Male and Female components, conjoined Sex/Creation represents Harmony and Perfection. In the sex act, a *coniunctio oppositorum*, the male supposedly achieves his own inherently female nature and thus becomes symbolically androgynous, transmuted into one flesh, and thus made whole. Of all the “spiritual sciences,” it was Hermeticism, physically practiced as Alchemy, which most frequently resorted to such erotic imagery. So did Marcel Duchamp.

The supreme task of Mankind is, therefore, Self-Realization. To know thyself—*nosce te ipsum*—is to be everything, to become self-realized and empowered. It is a progressive discovery, achieved through illuminist initiation, that is realized in Passages. Such occultist passages are traced through the successively ascending layers and stages of the human psyche. Having gained self-realization, certain occultist “Supermen” then turn back, “de-

scend,” to help their as yet unrealized fellow beings. From this lofty viewpoint, the Uninitiated are seen to exist in metaphorical Spiritual Darkness, situated somewhere below (*vers là-bas*, according to the French esotericists). The occultist *Übermenschen* “enlighten” their ignorant fellow humans through arduous practice, grace, virtue, and experience. Standing metaphorically above the rest of men, esotericist Supermen are also visibly recognized by their distinguishing attributes. The signs of their imaginative superexistence may include distinctive tonsure, decorative accessories and badges, circumcision and tattooing, peculiar ritualistic dress, and eccentric gestures and behavior patterns, some of which indicate androgynous sexuality. Marcel Duchamp employed many such disguises (e.g., fig. 20; see also MD-129, MD-131, MD-134, MD-136, MD-162).

On this level, as everywhere else, one notes an obsessive preoccupation with symbols. Since the mystagogue’s Higher Truths cannot be immediately apprehended by uninitiated minds, they must be conveyed to lesser, unempowered human vessels by and through symbols. Besides resorting to unique and often extremely complicated symbolic systems, themselves generally taken to be empowered in order to affect less developed minds on unconscious levels, esoteric Adepts typically form organized Brotherhoods. These Spiritual Communities are essential in order to facilitate the all-important, decidedly evangelical Work of Self-Realization. Their obsessive preoccupation with Illumination/Enlightenment—in short, with their own egos—is narcissism, pure and simple. The functional manifestation of the empowered ego is Magic, which, more often than not, is opportunistically called something else. Whatever we (or they) choose to call it, the tangible products of the Esoteric Tradition are, at bottom, physical display patterns of the omnipotence of the Individual: his/her Thought, Freedom, and Will. In sum, esoteric Enlightenment and occult Vision are the unique perceptions of Superior Realities, and those clairvoyant, highly privileged insights “penetrate” through to what lies beyond the Phenomenal World. What skeptics might call “the real world” (lowercase) is, according to standard occultist doctrine, the only aspect of reality accessible to the not-yet-initiated. Since they are said to uniquely perceive significant “hidden realities,” the kind inaccessible to mere laypersons, modern artists are implicitly considered to be “initiates.”

Having stated some common generalizations, we may now proceed to examine the historical evidence attesting to the wide diffusion of these esoteric ideas, elitist superstitions resurfacing under many guises, which sought to close the gap between man and the intangible. The manifestations of modern Occultism are truly hydra-headed. This widely misunderstood heading, representing the secular Spirituality of the modern epoch, shelters an astonishing range of strange, unorthodox obsessions, always couched in semi-religious terminology. The specifically modernist manifestations of timeless

esoterica include: the practice of hypnotism, magic, astrology, mental telepathy and clairvoyance, water dowsing and crystal gazing; the search for lost continents; the belief in pyramidology, witches, poltergeists, vampires, reincarnation; resort to water-diets and vegetarianism; pledging allegiance to UFOs (flying saucers) and ETs (extraterrestrials), supermen and super-races; pursuing research in geomancy, phrenology, homeopathy, chiropractic and osteopathy, phrenology, parapsychology and (some of) psychiatry, graphology and physiognomy, palmistry, allopathy, and alchemy. It makes for a formidable list.

Anna Balakian, a notable student of the Symbolist and Surrealist cultures in France, has made explicit the immediate, published source of most of these antimaterialist ideas. As she observes, “the Symbolists and their international coterie agreed on accepting a common origin in the philosophy of Swedenborg [even though] the manners of transmission have been multiple and simultaneous, as Swedenborgism became associated [first] with the Romantic tradition.”²⁷ Balakian stresses that the Swedish seer, a *clairvoyant* (*Hellseher* in German), was the synthesizer of many earlier forms of the *philosophia perennis*. As she recognizes,

It was not the originality of Swedenborg’s theories that made it such an attractive cult but rather Swedenborg’s ability to sum up and popularize so many parallel mystical notions that were inherent in the cabbalistic and hermetic cults. . . . Not a single new truth was discovered by Swedenborg: his precepts had all been conceived earlier; his philosophy was a synthesis of all the occult philosophies of the past. In turn, the translations of Swedenborg—into English, French, and German—were so numerous that his ideas became common property and underwent the distortions that generally occur in the indiscriminate handling of abstractions by those who need the concrete example of the thought.²⁸

Trained as a civil engineer, Emanuel Swedenborg (1688–1772) framed his esoterica as a comprehensive, mechanistic system. In contrast to most of the other modern spokesmen of the Esoteric Tradition, Swedenborg proceeded from a traditional biblical context. Elaborating upon scriptural precedent in the traditional, medieval, Occidental mode, Swedenborg concluded that human spirit already pre-exists in natural form, but needs further redefinition in terms of existence in the afterlife. Trained in the scientific methodology of his time, Swedenborg accordingly sought scientific proof of life after death. This proof was found in the Imagination, in the inner consciousness of spiritual sensations, which he treated as being distinct from sensual perceptions. Thus, for Swedenborgians, every natural, physical vision had its penumbra of spiritual recognition; as Swedenborg put it, a dead person “is simply separated from the physical component . . . when someone dies, he simply crosses from one world into another.”²⁹

The recognition of ongoing life beyond (*au delà*) was to be achieved through the enlightened perception of symbols. Swedenborgian *symbola* are phenomena in the physical world that have a dual meaning, either to the earthly perceptions or to the spiritual organs of man, where “*such things exist as the ear has never heard, nor the eye seen.*”³⁰ The mind and the human imagination live on forever, even after the corruption of the earthly body. According to Swedenborg, “it was ignorance to believe that in this heavenly kingdom intelligence died at the departure and dormancy of material things. . . . To the extent that a mind can be led away from the sensory matters in the outer person or the body, it is raised to spiritual and celestial matter.”³¹ Tied to these concerns is an omnipresent leitmotif, that of the “correspondences.” John Senior puts this famous doctrine into its true perspective, remarking how, had Swedenborg instead called his doctrine “allegories,” then “there would have been little theological dispute. But, like a true Occultist, he called them ‘facts.’”³² As Swedenborg himself put it in his most influential publication, *Heaven and Hell* (1758),

The nature of correspondence is unknown nowadays; this for several reasons. The foremost reason is . . . love of self and love of the world. [One who] focuses on worldly things only, since those appeal to his outward senses and gratify his inclinations, he does not focus on spiritual things since these appear to the inner senses and gratify the mind. . . . The ancient people behaved differently. As far as they were concerned, a knowledge of correspondences was the finest of all knowledges.³³

We shall see that European esotericists believe that the so-called ancient people were sensitives, *clairvoyants*, which moderns clearly are not—unless they are avant-garde artists. Although little discussed as such, this invidious comparison, one monotonously drawn even today between precivilized, superior, cosmic consciousness and modern, inferior materialism, is ubiquitous. Long after the popular demise of Swedenborgism, the same belief in the intellectual and ethical superiority of vaguely stated ancient doctrines becomes an essential component of primitivism. Although the primitivist look of most modern art, from Gauguin up to the present day, has been widely studied by a host of art historians, the strictly occultist parallels to, and even direct origins of, many modernist primitivist notions still tend to be overlooked. In spite of this stubborn omission in the standard explanations of Modernism, the esoteric background constitutes an essential chapter in the story of the genesis of modern art, particularly the rampantly primitive kind.³⁴

As remarked earlier, one obvious characteristic of modernist art is abstraction, specifically the outright renunciation of Renaissance perspective schemes. The result is a perception of spacelessness. This is another important

idea for which a *locus classicus* may be found in Swedenborg's *Heaven and Hell*—even granted that the notion of spacelessness is present in *all* kinds of European mystical literature. Speaking of “Space in Heaven,” the clairvoyant Swede pointed out diligently,

Angels have no concept or idea of place or space. As this can only look like a paradox, I should like to bring it out into the light, for it has a major bearing. All journeys in the spiritual world occur by means of changes of the state of more inward things, to the point that journeys are simply changes of state. . . . This is how angels travel. So they do not have any spatial intervals, and without spatial intervals, there are no spaces. Instead, there are states and changes of state. Since this is how journeys occur, nearnesses are clearly similarities, and distances dissimilarities, in the state of more inward elements. . . . There are no spaces in heaven, except outward states corresponding to inner ones.³⁵

Similar conditions affect the peripatetic extraterrestrials ubiquitous in postmodernist, New Age popular culture.³⁶

Swedenborg's *Heaven and Hell* represents quintessential postmedieval esotericism in that it incorporates many of the themes and motifs that appear repeatedly in modern esoteric and art-theoretical texts. The basic occultist pattern endlessly repeats itself, regardless of explicit function, supposed doctrinal differences, or dates of publication. On the other hand, Swedenborgism is acknowledged by historians to have been an all-pervasive factor in early modernist cultural life in France. In a poem aptly titled “Correspondences” (ca. 1861), Charles Baudelaire wrote, “Nature is a temple with living columns, whence often exit a few confused words. In the Temple of Nature, mankind passes through forests of symbols that observe him with intimate glances.”³⁷ For Baudelaire and his devotees, all this eventually led to a dark but profound Onement, an ineffable *l'Unité* that is infinite, like both the night of the temporal world and the clarity of sensation that comes with spiritual enlightenment.

Besides the case of Baudelaire, there may be also cited a passage from Gérard de Nerval's *Aurélia*. Here the pre-Symbolist poet speaks of dreams, and points out how “Swedenborg called his visions *Memorabilia*.” As Nerval further explains, such Swedenborgian memorabilia are specifically related to reveries or dreams. In Nerval's interpolation, “Dreaming is a second life . . . that separates us from the invisible world. It is an underground wave that gradually enlightens as one is removed little by little from the shadows and from the pale and mutely static figures who inhabit the realm of limbo. The world of the Spirits is opening up for us.” As did many of his contemporaries, whether attributing the popular idea that “*Le monde des Ésprits s'ouvre pour nous*” to Swedenborg or not, Nerval believed in the indestructibility of the Spirit. For Spiritualists, this is an enduring fact. As such, the imperishable

Spirit may be usefully contrasted to the deceitful mutability of earthly matter, which changes according to Good or Evil impulses.³⁸

Whereas one could endlessly cite references to Swedenborg in French literature likely known to Duchamp, the most widely known and comprehensive statement is found in Honoré de Balzac's mystic novel *Seraphita* (1835). *Seraphita* is an androgyne, a kind of genderized correspondence between Male and Female.³⁹ As such, s/he illustrates the perennial wisdom of the ancient Hermeticists' desire to reconcile the opposites (*coniunctio oppositorum*). The mythic figure of the Androgyne was to become of capital importance to the Surrealists. However, well before them, by 1919, the motif had become a central concern of Duchamp, who probably had read *Seraphita*. The artistic result was Duchamp's androgyne, in effect him/herself, "Rose Sélavy" (see fig. 20). As is recognized by scholars of Balzac's once immensely popular mystical novel, he had derived the myth of the Androgyne from Swedenborg. In *Seraphita*, one reads:

To poets and writers, [Swedenborgism] is infinitely marvellous; to seers, it is all absolute truth. . . . By learning the *correspondences*, by which worlds are made to concur with the heavens, one comes to know about those correspondences which do exist between these visible and tangible things of this terrestrial world and those invisible and unfathomable things belonging to the spiritual world [*choses invisibles et impondérables du monde spirituel*]. This perception is what Swedenborg had called a *celestial arcanum*.⁴⁰

This bisexual being is, however, a motif which also figures in the works of the German Romantics, as well as in French letters, in fiction by Xavière Gauthier, Sar Joséphin Péladan, and the Dumas brothers, among others. Many of these authors were familiar with, and typically associated the Androgyne with its pre-Swedenborgian origins in Alchemy (see figs. 21, 22). Evidently, so did Duchamp (fig. 20). According to strictly hermetic allegorical practice, and as they all knew, the Androgyne is the ubiquitous symbol of the *coniunctio oppositorum*, the imaginative joining together of Male and Female, or "Sulphur and Mercury" in specifically alchemical parlance. As used later by the Surrealists, the Androgyne still represented much the same idea, but was then given a more erotic emphasis. As they stated, echoing the Alchemists, the sexual act is an ecstatic union, a symbolic fusion of Male and Female, which blurs all distinctions between the sexes.

Another important early contribution to the evolving proliferation of modernist esoterica was Mesmerism, named after its founder Franz Anton Mesmer (1734–1815). At well-attended séances, Mesmer practiced what we would today call hypnotism. In the early Romantic period hypnosis seemed a kind of white magic, offering proof for the existence of the soul, of a hereafter, and all forms of prophetic, mentally superior Spiritual Vision, in

short, clairvoyance. In its strictly artistic applications, its corollary became “automatism,” a somnambulist tactic producing the Duchampian procedure of an “art made by chance” (further discussed in chapter 7).⁴¹ Thus, as a bridge between science and esotericism, hypnosis in part fostered the modern occult revival, and its popularity in the Symbolist period is attested to by some twelve hundred bibliographic references.⁴²

In practice, Mesmer’s esoteric hypnotic doctrines showed themselves to be clearly akin to Swedenborg’s correspondences. Mesmerism postulated the existence of a subtle fluid pervading all bodies and manifesting itself in the motions of the planets, in tidal and atmospheric changes, and in other natural cycles. Mesmerism additionally had a particular therapeutic application: when the natural ebb and flow of “mesmeric” fluid within the human body is put out of harmony with the universal rhythm, nervous or mental disorders result. In the Mesmeric application, spiritual harmony could be achieved by magnets attached to the body to redirect the vital fluids. Mesmer explained in his *Mémoire sur la découverte du magnétisme animal* that

Animal magnetism is a fluid universally diffused; it is the medium of a mutual influence between the heavenly bodies, the earth, and animated bodies; it is everywhere continuous, so as to leave no void. Its subtlety admits of no comparison; it is capable of receiving, propagating, communicating all the impressions of motions. . . . The actions and the virtues of animal magnetism may be communicated from one body to another, animate and inanimate. . . . In animal magnetism, nature presents a universal method of healing and preserving mankind.⁴³

Invisible, animal magnetism is all-pervasive, just like *l’Hypnotisme* as practiced later in the Symbolist era. So too, a century after Mesmer, were the occult “lines of force” illustrated by the Futurist painters.⁴⁴

Swedenborgism and Mesmerism paved the psychological way in Europe for Spiritualism, an American import dating from the late 1840s.⁴⁵ The initial outburst, framed as a religious revival, displayed definitely anti-aristocratic phenomena: convulsions, glossolalia, trances, visions, table-rappings, men barking like dogs, and other behaviors. America was (and still is) a sprawling and raw land ruled by what has often been called the “Protestant mentality,” characterized by a bewildering tendency to ideological fragmentation. As the historical evidence painfully attests, besides its enviably fertile industrial production, America is also perpetually ready to manufacture ever more heterogeneous cults and sects, allowing ever more diverse points of view, some quite bizarre. As with the strictly occultist sects, there were two broad paths along which the new Protestant sects could journey. Either the road led to some kind of compromise with the reigning scientific rationalism, or it doubled back to a fresh assertion of the *philosophia perennis*. Initially wholly American, Spiritualism briskly crossed the Atlantic, became

hugely popular in France, and thereby acquired a more traditional, European, scripturally ritualized character. By the 1850s, a leading proponent was Allan Kardec, who proposed an unabashedly Swedenborgian doctrine in his *Livre des Esprits* (1857). Kardeckian spirits, likewise invisible but all-pervasive, evolve through different grades as they acquire higher moral and intellectual qualities. These various esoteric doctrines and influences culminated in the foremost figure of the nineteenth-century occultist revival in Duchamp's homeland, the one who synthesized all that had historically preceded him within the Esoteric Tradition, Éliphas Lévi.⁴⁶

"Éliphas Lévi" was the nom de plume of Alphonse-Louis Constant (1810–1875), a figure now generally acknowledged to be the most important synthesizer of esoterica in nineteenth-century France. In Lévi's two fundamental, often reprinted studies, *Dogme et Rituel de la Haute Magie* (1856) and *l'Histoire de la Magie* (1860), we find the ultimate resolution of *philosophia perennis*. It is no coincidence that such Ancient Wisdom happens to appear on the chronological threshold of the new age of early Modernism. Lévi's newly whipped up Ancient Wisdom incorporated into one grand fabric esoteric strands as diverse as Swedenborgism, the Cabala, Zoroastrian Manicheanism, Satanic worship, Mesmerism, witchcraft, Pythagorean number mysticism and, most significant for my purposes, the Hermetic Tradition, physically expressed through Alchemy. For Lévi and his followers, hidden/occult wisdom is all one and the same. "Behind the veil of all the hieratic and mystical allegories of Ancient Doctrines," affirms Lévi, "there are found indications of a Doctrine, which is everywhere the same and everywhere carefully concealed."⁴⁷ The importance of the pseudonymous Lévi for the development of the modern Esoteric Tradition in France is perhaps incalculable; as John Senior tersely announces, "he is the single greatest occult influence on Symbolism. Baudelaire, Rimbaud, Villiers, Mallarmé, and Yeats read his works."⁴⁸ Probably, so did Duchamp.

Of particular interest is Lévi's vision of the imagination as an organ of symbolic perception. As Lévi shows, this notion was as common in mid-nineteenth-century mainstream Occultism as it was to be three decades later in Symbolist literary theory. Lévi explains, "I speak of the Imagination, which the Kabbalists term the *DIAPHANE* or *TRANSLUCIDE*. Imagination, in effect, is like the soul's eye; therein forms are outlined and preserved; thereby we behold the reflections of the Invisible World. It is the glass of visions and the apparatus of magical life . . . because it is the Imagination which exalts will and gives it power over the Universal Agent." Like the Symbolists who followed him, Lévi also exalts the "word" as a "sign" of the veiled truth lying *au delà*, beyond reality: "L'Imagination est l'instrument de L'ADAPTATION DU VERBE." Given this linguistic verity, "Imagination is the Instrument for the ADAPTATION OF THE WORD," Lévi then states, "as a fact, the word, or speech, is the veil of being and the characteristic sign of life." It therefore

follows that, symbolically speaking, “every figure is a character [and] every character derives from and returns into a world.” As a result, “in other words, the form is proportional to the idea; the shadow is the measure of the body calculated in relation to the luminous ray.”⁴⁹

Also having an apparent *locus classicus* in Lévi’s magical writings is the typically Symbolist (now generally modernist) notion of the Man of Genius.⁵⁰ This proto-*Übermensch* is the ecstatic genius dominated by his imagination, and this faculty makes him a prophetic seer. As Lévi remarks, “the Man of Genius differs from the dreamer and the fool in this only: that his creations are analogous to truth, while those of the fool and the dreamer are lost reflections and borrowed images. . . . The Imagination of the Adept is diaphanous, whilst that of the crowd is opaque. . . . In virtue of positive science, the Seer knows that what he imagines is true, and the event invariably confirms his vision.” Lévi generously acknowledged the sources of this ecstatic visionary notion that prophetically articulated Symbolist perceptual-conceptual theory. “It is by means of this light,” states the French Magus, “that ecstatic visionaries place themselves in communication with all worlds, just as so frequently occurred to Swedenborg.”⁵¹ Throughout his works, Lévi’s debt to Swedenborg is patent. An apt example is a poem by Lévi, “Correspondences” (1851), which directly inspired a much better known poem by Baudelaire with the same title, written ten years later (in part quoted above).

Lévi’s *Correspondences* also provide a handy catalogue of later Symbolist leitmotifs, including the following assumptions: “Forms constitute a language which speaks to us while we are asleep. The Dream is the mirror of the Soul. In this way, the Earth responds to the Heavens by means of a secret harmony. By hypothesis, the invisible therefore resides within the visible—*L’invisible est dans le visible*.”⁵² It was Lévi himself who, in 1856, clairvoyantly wrote a précis of the whole program of the Symbolist art mentality that was to follow him: “What is the ultimate reason of allegories and numbers, the final message of all symbolism? . . . The answer to the enigma is MAN! . . . Everything is symbolical and transcendental in this titanic epic of human destinies.” As in the case of the subsequent evolution of Symbolism, so was it with the historical rise of the first Occultist doctrines. This is an idea which now seems confirmed by Lévi’s own observations: “It was necessary to exonerate miracles under the pretence of superstition and science by an unintelligible language. Hieroglyphic writing was revived; pentacles and characters were invented to summarize an entire doctrine by a sign, a whole sequence of tendencies and revelations in a word.”⁵³ In his other major treatise, *Histoire de la Magie*, Lévi took as his opening statement the familiar idea that Occultism was the embodiment of hidden, primitive wisdom, the *philosophia perennis*: “Magic is the science of the ancient Magi.”⁵⁴

Lévi typically inveighs against contemporary materialism. “We call ourselves strong-minded,” he states, “when we are indifferent to everything

except material advantages, as, for example, money. Given ignorance, wealth furnishes only destroying weapons." At that point, Lévi introduces his own, stridently antimaterialist remedy for the ills of the contemporary world. The solution for Lévi is the perception of a hidden, universal life force, an idea common to the early avant-garde artists. This new (actually neo-Mesmeric) spiritualist and animistic vision is what Lévi calls that

Composite Agent, a natural and Divine Agent, at once corporeal and spiritual, an Universal Plastic Mediator, a common receptacle for vibrations of movement and images of Form, a fluid and a force which may be called, in a sense at least, the Imagination of Nature. By the mediation of this Force, every nervous apparatus is in secret communication together; hence come Sympathy and Antipathy, hence dreams, hence the phenomena of second sight and extra-natural vision.

Lévi named this wonder-working phenomenon "Astral Light." By these occult visionary means, also standard features in early twentieth-century avant-garde theoretical writings,

Sight is turned inward, instead of outward; night falls on the external and real world, while fantastic brilliance shines on the world of dreams; even the physical eyes experience a slight quivering and turn up inside the lids. The soul then perceives, by means of images, the reflection of its impressions and thoughts. . . . It is the Universal Imagination, of which each of us appropriates a lesser or greater part according to our grade of sensibility and memory. Therein is the source of all apparitions, all extraordinary visions, and all the intuitive phenomena peculiar to madness or ecstasy.⁵⁵

In light of what follows, it is especially interesting to note that Lévi (not at all uniquely) repeatedly calls Occultism an "Art." As he states, "it must not be forgotten that Transcendental Magic is called the Sacerdotal Art and the Royal Art."⁵⁶ Lévi takes as a maxim of his solitary pursuits a resounding slogan: "THE SEAL OF NATURE AND OF ART IS SIMPLICITY."⁵⁷ Elsewhere, Lévi explains what may be called the historical necessity for the Occultists' obsession with imagist signs and symbols. Lévi grandly announces that "the prophets spoke in parables and images, because abstract language was wanting to them, and because prophetic perception, being the sentiment of Harmony, or of Universal Analogies, translates naturally into images. Taken literally by the vulgar, these images become idols or impenetrable mysteries. The sum and succession of such images and mysteries constitute what is called Symbolism." Lévi concludes that "the multiplicity of Symbols has been a book of poesy indispensable to the education of human genius."⁵⁸

Finally, besides constantly alluding to the Occultist as an Artist and a Symbolist, Lévi also neatly establishes that large-scale occultist eruptions are mainly manifestations of “anxiety induced by change.” According to the way Lévi explained his situation in 1860, “in the chaos of universal doubt, and amidst the conflict of science and faith, the great men and the seers figure as sickly artists, seeking the ideal beauty at the risk of their reason and their life.” In his age, just as in ours, avant-garde or bohemian Artists and marginal or clairvoyant Occultists are never properly appreciated by society at large. “Genius is judged by the tribunal of mediocrity,” Lévi laments, “and this judgment is without appeal, because, being the light of the world, Genius is accounted as a thing that is null and dead whenever it ceases to enlighten. The ecstasy of the Poet is controlled by the indifference of the prosaic multitude, and every enthusiast who is rejected by general good sense is a fool and not a genius. Do not count the great Artists as bondsmen of the ignorant crowd, for it is the crowd which imparts to their talent the balance of reason.”⁵⁹ Whatever its many names, the Occultist viewpoint typically represents an elitist, highly privileged, antidemocratic spiritual vision.

I have perhaps taken an unusual tack here by defining Lévi’s importance for the central figures of the evolving Symbolist aesthetic, itself essential for early twentieth-century artistic abstraction, Duchamp’s included. But what was Lévi’s significance for the history of Occultism itself? For Christopher McIntosh, the answer is perfectly clear.

It is this: Lévi helped to change the popular concept of magic. Whereas magic had hitherto been regarded by most people as a means of manipulating the forces of nature and by many as a dangerous superstition, Lévi presented it as a way of drawing the will through certain channels and turning the magician into a more fully realized human being. . . . Lévi was not the first to express it in writing, but he was the first to popularize it on a large scale.⁶⁰

So doing, Lévi rendered an important but wholly ignored contribution to art history. Modern Occultism, a popular concept of magic, was amalgamated into Symbolist thinking, particularly that which refers to the visual arts. Following the Symbolist epoch, the original, essentially occultist, postulates of Symbolist art became completely standard in modernist art theory.⁶¹ The strongest evidence is that of a shared conceptual vocabulary, for this best indicates a community of fundamental beliefs existing between Occultists and Symbolists. The key terms identifying the underlying contributions of the Esoteric Tradition to distinctly modernist art concepts include the following, constantly reiterated buzzwords: Analogy, Intuition, Memory, Ancient Wisdom, Harmony, Imagination, the Dream, Correspondences, Suggestion, the Symbol, Manipulation of Matter, Essences, Will, Hidden Energies, Vitalism, and others. Last, but scarcely least, is Abstraction.

For the pursuit of these linguistic linkages between esoteric sectarian scriptures and avant-garde artistic expression, our optimum guide is Gabriel-Albert Aurier (1865–1892).⁶² Aurier was a critic who perhaps best articulated the art theory of his period, Symbolism. As was so common to the anarchistic tendencies of this period, as well as the avant-garde in general, Aurier began by taking up an emphatically antimaterialist stance. Aurier's antimaterialism, like that of so many of his artistic contemporaries, defied the mainstream attitudes of an era in which, he says, the establishment "tried to introduce science everywhere, even where it is least concerned." For Aurier, these positivist natural sciences "are, by definition, not able to come to absolute solutions." By his reckoning, such materialist thinking "must, therefore, be accused of having made this society lose faith, become earth-bound." The widely accepted positivist attitudes of the physical scientists account, Aurier believes, "for the poorness of our art, which they have assigned exclusively to the domain of imitation, the only quality that can be established by experimental methods." Alas, "by means of positive science, we shall have returned to animality, pure and simple. We must react." And what then is the answer, the means of reaction, the ready-made solution, the way out? According to the bold-faced conclusion of Aurier, "IT IS MYSTICISM ALONE THAT CAN SAVE OUR SOCIETY FROM BRUTALIZATION, SENSUALISM AND UTILITARIANISM."⁶³

In an article published in 1891, in which Aurier discussed the art of Gauguin, the French critic attributed to this renowned Symbolist artist "the clairvoyance of that inner eye of man, of which Swedenborg speaks." As such, for Aurier and his readers, Gauguin's art is "the representative materialization of what is the highest and the most truly divine in the world, of what is, in the last analysis, the only thing existent—the Idea." Appealing to the authority of a Neo-platonic notion beloved to the Esoteric Tradition, "the poor stupid prisoners of the allegorical cavern fool themselves in contemplating the shadows that they take for reality," Aurier concludes that "the normal and final end of painting, as well of the other arts, can never be the direct representation of objects. Its aim is to express Ideas, by translating them into a special language." Even though one must doubt that Ferdinand de Saussure ever read any of Aurier's art criticism, a general functional alignment between the two apparently disparate contemporary thinkers is clear. The common glue is Symbolist culture. According to the new terms of his special language, Aurier proposes that "objects cannot have value more than objects as such; they can only appear to him [the clairvoyant] as SIGNS." As a result, the Symbolist artist—a mystic and a seer—*must* resort to abstraction. According to Aurier's emphatic conclusion, "the task of the artist, whose eye is able to distinguish essences from tangible objects, . . . is a *necessary simplification in the vocabulary of the sign*." In short, for Aurier, and for a great many later modernists, "objects are nothing but the revealers of the

appearances of these ideas and, by consequence, have importance only as signs of Ideas.” These ideational signs manifest themselves on the artist’s canvas, revealing his uniquely privileged “insight into the symbolic correspondences.” In properly Symbolist painting, according to Aurier, “every detail is, in fact, really nothing but a partial symbol, most often unnecessary for the total significance of the object.”⁶⁴

To achieve his goals, the Symbolist artist resorts to the pictorial equivalent of the *philosophia perennis*; according to Aurier, the visionary and modernist artist “has thus, in the last analysis, returned to the formula of art that is simple, spontaneous and primordial.” *L’art primordial* means, of course, what we call, with the benefit of art-historical hindsight, “primitivist imagery.” To be a modern primitivist you certainly need not merely ape tribal art ransacked from the French colonies. Aurier is talking about the *idea* of the primordial, or primitivist attitudes, and not necessarily about any particular art-historical forms. Therefore, Aurier affirms that “all primeval revelations” are, “without any doubt, the true and absolute art, fundamentally identical with primitive art, to art as it was divined by the instinctive geniuses of the first ages of humanity.” By deliberate means, the modern primitivist artist, uniquely endowed with psychic gifts, “finds himself confronted with nature, knowing how to read in every object its abstract significance, the primordial idea that goes beyond it.” And just what is it that lies beyond this abstract significance? Obviously, it is that Ancient Wisdom which has always been available to the uniquely enlightened. In 1892 and immediately afterwards, that gift was particularly the province of the visual artist and, Aurier concluded, “thanks to this gift, art which is complete, perfect, absolute, exists at last.”⁶⁵

We have yet another corollary in Paul Adam’s preface to Georges Vanor’s *L’Art Symboliste* (1889). As Adam then claimed, “the Age is evidently preparing itself for a new period, a period of force, one of a Science of the Consciousness and of a general felicity. The coming epoch is bound to be mystical and abstract in its imaginative reveries.”⁶⁶ Or, similarly, we again have the case of Albert Aurier, who wrote how the future age “shall be a Century of Art succeeding the Century of Science, an age of desperation and lies.” In the forthcoming “*Siècle de l’Art*,” says Aurier, collectively we shall find ourselves entering into “a new art, idealistic and mystical.”⁶⁷ Therefore, Kandinsky’s supposedly original call in 1912 for “the great epoch of the Spiritual” had already been articulated at least twenty years earlier in Aurier’s strident heralding of “*un art nouveau, idéaliste et mystique*.” Kandinsky’s *geistige*, a spiritual foundation for truly innovative art, is largely a paraphrase of published and widely discussed Symbolist texts, which in turn had an unmistakable functional affinity with widely read apocalyptic texts like that of Éliphas Lévi. Since we know that Duchamp read Kandinsky, why not Lévi as well?

In short, any number of artists belonging to what was then a beleaguered avant-garde collectively believed and published statements to the effect that a wholly New Art was bound to transpire as one century merged into a bright new one. The year 1900 was rife with utopian and millennialist promise. Specifically, the new century promised an idealist and mystical new art, for which the most appropriate language was the dematerialized rhetoric of ethically pure abstraction. This is the broader historical context for Kandinsky's *Über das Geistige in der Kunst*; so also is the timeless wisdom of the Esoteric Tradition. These contexts provide a particularly cogent reason why, in 1912, Marcel Duchamp would bother to trudge through the murky German text of Kandinsky's detailed discussion of "The Spiritual Element in Art," which directly propels *gegenstandlose Malerei*, "nonobjective painting." But even if he had never heard of the recent German publication, his own contemporary French culture, as much *symboliste* as *occultiste*, would have inexorably shaped the future of Duchamp's unquestionably unique, also unquestionably influential, art.

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the invention of the modern alchemist-artist

In order to explain coherently the historical context of a corpus of alchemical iconography informing Duchamp's early works (as specifically identified beginning in chapter 4), this chapter will explore the character of a certain metaphor coined in the Symbolist period. This personified modernist leitmotif, the Alchemist, is now so familiar as to be a stereotype, even a cliché.¹ This fellow with a prestigious title, like the Artist (also capitalized), is a pungently anachronistic figure largely drawn from an essentially fictitious Middle Ages reinvented in France by Romantic writers already favorably disposed toward Occultism.² Near the close of the nineteenth century, the Alchemist was given the unprecedented assignment of serving as a role model for burgeoning modernist artistic endeavor. This metaphorical personage was not the invention of the Symbolists; Goethe, for instance, had employed the familiar figure of the hermetic philosopher-artifex long before, in *Faust* (Part One, 1773–1801). As early as the Age of Enlightenment, the motif of hermetic pursuit was used to stand for worldly mastery and for a spiritual realization which could be achieved through arduous initiation into the alchemical process. Much later, Arthur Rimbaud, among other Symbolists of his generation, was to relate his inner quest as an avant-garde artist to the ancient alchemical tradition. While, initially, the neo-hermetic analogy was most commonly applied to an heroic Romantic-era image of the Poet-Genius, in the modernist period it has functioned just as well for the visual artist.

At the outset, it is important to recognize that we are not dealing with what may, today, appear to represent a learned subject. As we have seen,

both Alchemy in particular and Hermeticism in general were common topics in Symbolist aesthetic rhetoric. Both concepts were readily accessible, even on the popular level, in late nineteenth-century culture. The fictive but widely accepted equation, Alchemist as Artist, had become well established in the Symbolist period. Its initial formation is slightly earlier, seeming again to be largely the work of Éliphas Lévi, and once set in place by this influential occultist popularizer, the functional assimilation of Alchemists and Artists gained strength. As shown here, the Art-Alchemy link appears in the writings of spokesmen for artistic movements as supposedly diverse as Cubism and Surrealism. It occurs again in the revival of hermetic rhetoric after 1945.

Although a growing interest in Alchemy coincided with the post-Enlightenment mystical revival, the new prominence and popularity accorded to the strictly hermetic endeavor dates from the 1860s, when, as Enid Starkie recognizes, the works of Éliphas Lévi enjoyed a “popular vogue during the last years of the Second Empire.”³ More importantly, as Starkie also points out, by the time of the Symbolist period, the implications of Alchemy, along with the “Occult Sciences” (as they were called by their authors), were just as predominant in belief systems as Freudian, Marxist, and Einsteinian systems are today.⁴ The majority of people adhering to such esoteric beliefs may never have studied the originating texts, composed between the Hellenistic era and the Middle Ages. Likewise, many self-identified postmodernists have probably not thoroughly studied the primary documents of Freud, Marx, or Einstein, which influenced later thinkers, including Baudrillard, Deleuze, Foucault, and Lacan.⁵ Nonetheless, a century ago the highly influential ideas of the self-designated Occult Scientists were virtually universally known, if only by means of vulgarized synopses, called *divulgations* in French.

In the analogous case of the *Corpus Hermeticum* a century and a half ago, it would have become widely known by means of an accessible popularization by Éliphas Lévi or by one of his many followers, such as Papus (the pseudonym for Gérard Encausse, 1865–1916). It becomes obvious from a reading of the popular modern expositions of the Ancient Science that the significance of Alchemy for the Symbolist coterie lay not in its physical manipulations, leading to certain claimed transmutations of base metals into gold, but instead in the symbolic, poetic value of such a quest. Accordingly, a once mundane, medieval laboratory procedure acquired a commonly understood metaphorical import. In itself, the essentially metaphorical neo-alchemical notion of an imaginative and magical transmutation of the most prized of all physical objects—gold—drawn from the most common of elemental materials—lead, for instance—allows for powerful spiritual symbolism. Just as was the case with the Symbolist poets, the sign and the analogy were of primary concern to their occult contemporaries; according to Papus, “the principal method of Occult Science is Analogy. We know that there

exists a constant connection between the Sign and the Idea which it represents, meaning between the visible and the invisible.”⁶

Transmutative symbolism became even more potent with the application of post-Swedenborgian analogies to the signs of Death and Resurrection. Such transcendental themes were understood by Éliphas Lévi to be inherent in the purification process indispensable to ancient alchemical pursuits. The guises of the metaphorically spiritualized purifications were nearly endless in their individual variations. This diversity was expressed by one of the earlier spokesmen of modern Hermeticism in France, Louis Figuier, who published an interesting treatment, *L'alchimie et les alchimistes. Essai historique et critique sur la philosophie hermétique* (1854). As he tells it, “metals” (not as understood by any modern chemist) were composed of different proportions of sulphur and mercury. Alchemical gold was considered by Figuier and his followers to be almost pure mercury, with other trace materials, and sulphur was the combustible part of the hermetic compound. Base metals were broken down through fire in the process of transmutation and purified into gold. The purificatory processes included, Figuier announces, the standard sequences called “calcination, putrefaction, solution, distillation, sublimation, conjunction, and finally fixation.”⁷ All metals, which are impure by nature, were to be reduced to a pure state, *l'or alchimique*.

In metaphysical terms, the material world presents itself to the modern Alchemist as a flux of contingent events and relative objects. As metaphysics, or supernatural perceptions, these variously named processes of purification indicate the mind-set separating the modern pseudoscience *l'Alchimie* from medieval *Alchemia*. If, as the modern neo-Alchemist believes, the quintessence of these essentially symbolic materials can be refined, then the purity and wholeness of our universe will remain in refulgent Absoluteness and Unity. Therefore, success in attaining the metaphoric “gold of philosophers” was more often than not taken to be a symbol of visionary attainment of Unity with the One.

The modernist pursuit of such Unity was often called “Spiritual Alchemy.” This term was usefully defined in 1895 by the English Theosophical writer Annie Besant as:

a process of change, a process of transmutation, the allusion of course being to that work of the Alchemist whereby he changed the baser metal into the nobler, whereby he changed, say, the copper into the gold. And I have in my thought a process which goes on in the world around us, to some extent I should imagine in the mind and in the life of every thoughtful and religious person, but which with our [Theosophical] candidate becomes, as I have so often repeated, a self-conscious and deliberate process, so that he recognizes his method and his end, and so that he turns himself deliberately to the achievement of that

which he desires. Now this process of Spiritual Alchemy spoken of may be regarded, I think in the most general sense of the term, as a transmutation of forces. Each man has in himself life and energy and vigor, power of will and so on; these are the energies by which his object is to be attained.

By a process which may fairly be described as alchemical, he transmutes these forces from lower ends to higher ends; he transmutes them from gross energies to energies that are instead refined and spiritualized. It is not only that he changes their object, it is rather that he changes and purifies them, without, as it were, altering their essential nature, just as the Alchemist, taking this matter, really passed it through a process of purification; not the mere purging away of dross, but a purification that went much further, that took the very metal itself, that reduced it into a finer and rarer state, and then, as it were, recombined it into a nobler and sublimer state. So too you may imagine the Spiritual Alchemist as taking all these forces of Nature, recognizing them as forces, and therefore as useful and necessary, but deliberately changing, purifying and refining them.⁸

The process of liberating the subjective self was symbolized by the *Grand-Oeuvre*, meaning "Great Work," a new French term standing for the medieval *magnum opus alchemicum*. Even the term *Grand-Oeuvre*, since it also signifies an artistic masterpiece,⁹ can be taken as evidence of the Symbolists' common linkage of Alchemy and Art. The heavily metaphorical language of revived, post-1860 Alchemy neatly serves an essential modernist concern. In our times, too, it is notorious that the creative process, the prestigious making of Art, becomes itself the psychic expression and physical means to the realization of the self. This understood value also explains the durability of neo-alchemical themes and symbols throughout modern art and literature, since both expressive disciplines are concerned with that elusive but ever so desirable creative process. Therefore, in the more immediate, art-historical sense, as Patricia Mathews suggests, Alchemy "could also allude to the simplification and purification found in Symbolist literary esthetic theory, or to the concept of reductionism ['abstraction'] in Symbolist painting, just as suggestion does."¹⁰

The oracular quotation, "That which is above is like that which is below, just as the inferior is like the superior, so propelling the miracle of the unitary object," had its archetypal source in the *Emerald Tablet*, reputedly the most ancient of all the hermetic texts. Like the Ten Commandments handed down to Moses, for the modern Occultist, the *Emerald Tablet* represents the essential compendium of occult wisdom. For this sweeping conclusion, we have once again the authoritative word of Éliphas Lévi: "The key of all magical allegories is found in the Tables which we regard as the work of Hermes [Trismegistus]. About this book, which may be called *the keystone of the whole edifice of Occult Science*, are grouped innumerable legends that are either its partial translation or its commentary, reproduced perpetually, under

a thousand varied forms.” According to Lévi, the physical expression of Hermetic Wisdom is Alchemy. Like the rest of Lévi’s esoterica, Alchemy is just another expression of High Magic, *la haute magie*. As Lévi sums up his argument, “There is only one dogma in Magic, and it is this: The visible is the manifestation of the invisible [and] bears an exact proportion to the things which are inappreciable by our senses and unseen by our eyes.”¹¹

Lévi defines High Magic as “the traditional science of the secrets of Nature, which has been transmitted to us from the Magi,” another of the many terms used for the Occultist “Supermen.” Lévi continues, “by means of this Science, the Adept is invested with a species of relative omnipotence and can operate superhumanly—that is, after a manner which transcends the normal possibility of men.” Lévi follows with a definition of his Magus, a superhuman imaginative creator (whose resemblance to contemporary artists did not, as we shall soon see, pass unnoticed): “The Magus is truly that which the Hebrew Kabbalists term *Microprosopus*—otherwise, the creator of the little world. The first of all magical sciences being the knowledge of one’s self, so is one’s own creation first of all the works of Science; it comprehends the others and is the beginning of the Great Work.” As it is further defined by Lévi,

The Great Work is, before all things, the creation of man by himself, that is to say, the full and entire conquest of his faculties and his future; it is especially the perfect emancipation of his will, assuring him universal dominion over Azoth and the domain of Magnesia, in other words, full power over the Universal Magical Agent. This Agent, disguised by the ancient philosophers under the name of the First Matter [*prima material*], determines the forms of modifiable substance, and we can really arrive by means of it at metallic transmutation and the Universal Medicine. This is not a hypothesis; it is a *scientific fact*, already established and rigorously demonstrable.¹²

Lévi further explains that “there are two Hermetic operations, the one spiritual, and the other material, and these are mutually dependent.” Moreover, as Duchamp was to state in the Notes for his *Large Glass*, just as in Alchemy, “The Separation is a Operation,” and vice versa: “L’écart est une opération” (see Duchamp’s Note 52). As this separational idea was much earlier stated by Lévi, “in the Great Work, we must separate skillfully the subtle from the gross, the mystical from the positive, allegory from theory.” Duchamp was later to explain—actually, reveal—in various places in his Notes to the *Large Glass* that he was himself, since perhaps 1912, dealing with “allegory” (a topic discussed more extensively in chapters 4, 5, and 8). Once again, the real significance, even worth, of the already anachronistic mode of allegorical expression was made clear long before by Éliphas Lévi: he knew that all of Alchemy was to be understood as allegory. According to the French High Magician,

If we would read [the alchemical writers] with profit and understanding, we must take them first of all as allegorical in their entirety, and then descend from allegories to realities by the way of the correspondences or analogies indicated in the one dogma: That which is above is proportional to that which is below, and so on reciprocally.¹³

According to the newly installed hermetic mythology of the post-Romantic period, the alchemically symbolizing Artist, like the Bohemian artist of Lévi's time, is poor. His poverty arises because he has voluntarily renounced material wealth, pursuing instead the immaterial goals of his inspired imagination. Lévi explains that "to succeed in the Great Work, one must be *divinus*—a diviner, in the kabbalistic sense of the term—and it is indispensable to have renounced, in respect of personal interest, the advantage of wealth, so as to become its dispenser."¹⁴ Moreover, "that which Adepts have distinguished as the Great Work is not only the transmutations of metals but also, and above all, the Universal Medicine—that is to say, the remedy for all ills, including death itself."¹⁵ Lévi continues,

Death is a phantom of ignorance; it does not exist; everything in Nature is living, and it is because it is alive that everything is in motion and undergoes incessant change of form. . . . Death is neither the end of life nor the beginning of immortality: it is the continuation and transformation of life. . . . It is this which makes resurrection one of the hardest works of the highest initiation, and hence its success is never infallible, but must be regarded almost invariably as accidental and unexpected.¹⁶

Perhaps this explains the cryptic inscription Duchamp had ordered to be placed upon his tombstone: *D'ailleurs c'est toujours les autres qui meurent*. Evidently, especially if one takes Alchemy seriously, "Anyway, it's always the other guys who croak."

The selfless, healing, spiritual mission of the necessarily secretive Artist-Alchemist was further explained by Lévi in a way strikingly like the ascetic, nonmaterialistic lifestyle attributed to Duchamp by his biographers:

To be ever rich, to be always young and to die never: such, from all time, has been the dream of Alchemists. . . . Like all magical mysteries, the secrets of the Great Work have a triple meaning: they are religious, philosophical and natural. . . . Hence the search after the Great Work is called the Search for the Absolute, and this work itself is termed the Operation of the Sun. All masters of Science recognize that it is impossible to achieve material results until we have found the plenary analogies of the Universal Medicine and the Philosophical Stone. . . . The Universal Medicine, is, for the soul, supreme reason and absolute justice; for the mind, it is mathematical and practical truth; for the body, it is the Quintessence, which is a combination of gold and light.

The modern Alchemist is, according to Lévi's extended definition, literally a Symbolist. Moreover, the ever symbolizing Alchemist is simultaneously employed in the service of Art, Science, Philosophy, and Religion. As Lévi grandly put it,

All Masters in Alchemy who have written concerning the Great Work have employed symbolical and figurative expressions, and have been right in so doing, not only to deter the profane from operations which would be dangerous for them, but to make themselves [only] intelligible to adepts by revealing the entire world of analogies which is ruled by the one and sovereign dogma of Hermes. . . . *Hermetic Art is, therefore, at one and the same time, a Religion, a Philosophy, and a Natural Science.*¹⁷

Lévi's writings were certainly not the only available source of alchemical science and hermetic pseudotheology for those who might wish to become better informed about these esoteric subjects. In fact, there was a spate of neo-alchemical publications appearing during the Symbolist period. Besides enjoying the distinct advantage of having been written in modern, colloquial French, these paperbacks tended to be inexpensive, averaging only about five francs. At the time these *divulgations* of the Hermetic Arts were being copiously published and sold on the streets of Paris, there also appeared a lesser number of serious scholarly (and more expensive) studies of Alchemy that treated the Hermetic Science as both a technical and an historical phenomenon. Among these, most significant were the still standard studies written by Marcellin Berthelot, and some modernized translations of famous hermetic authors, including, as edited by Albert Poisson, the *Cinq Traitéés d'Alchimie des plus grands philosophes: Paracèlse, Albert le Grand, Roger Bacon, Raimond Lulle, Arnold de Villeneuve* (1890) and his translation of Paracelsus's *Traitéé des trois essences premières* (1903). Most of these works were readily available to Marcel Duchamp at the Bibliothèque Ste.-Geneviève in Paris during his period as a librarian just before World War I (see works marked with a # in the bibliography).

In this case, our attention is focused upon the imaginative interests of the amateurs of the Symbolist period, not upon the professional scientists and historians. As a rule, based on my professional observation, artists do not read historical primary texts and scholarly tomes; instead, they tend to turn to popularizations of currently trendy ideas. As a result, what must be of particular interest to us are the published *divulgations* of traditional hermetic materials that, given the nature of their subject matter, were simultaneously pseudoscientific and occultist. Besides Lévi, most important among the popularizers of alchemical ideas in France were Dom Antoine-Joseph Pernety (particularly his *Dictionnaire Mytho-Hermétique* (1758) and Albert Poisson (1869–1893). Besides having edited the *Cinq Traitéés* in 1890, the short-lived hermeticist Poisson was the author of an illustrated and easily readable manual

of Alchemy, *Théories et Symboles des Alchimistes: Le Grand-Oeuvre, suivi d'un Essai sur la bibliographie alchimique du XIXe siècle* (1891). Like those mentioned above, these works were also available to Duchamp in the Bibliothèque Ste. Geneviève and, in particular, this last work has been shown to have been assiduously studied by Marcel Duchamp (see chapters 4 and 5).

Since Albert Poisson turns out to have been a major figure in shaping Duchamp's career, we ought to take a closer look at this once-celebrated, emblematic figure of the Occult Underground of the Symbolist period. Prematurely dead at the age of twenty-four, Albert Poisson was, Arnold Waldstein enthusiastically affirms, "one of the most profound Alchemists of the fin de siècle, doubtlessly the reincarnation of an actual Alchemist privy to the Opus." Waldstein further claims (with suitably poetic passion) that "by reason of his purity and enthusiasm, Albert Poisson gives living witness of the perennial interest of Alchemy; he is the Rimbaud of the Art of Hermes, a youth devoured by the dragons from the king's castle."¹⁸ More than his meager list of publications, it now seems that it was the Romantic drama of Poisson's self-destructive personal obsessions that proved so appealing to his contemporaries and to some later students of Hermeticism. In France, besides Duchamp, these included André Savorel, who affirmed that

Traditional Alchemy cannot be confused with some other roads that lead to a different realm, and these can lead anyone who wishes to travel upon them, particularly if he lacks the proper preparation and an experienced guide, only towards consumption and madness, whether or not these maladies may be erotically induced. The procedures of psychic magnetism are equally senseless: more than one student has made of these a deceptive experience, after having been lead to believe that he had indeed found the key to the alchemical enigma, with the transfusion of his own living essence into the hermetic vessel. Besides being wholly useless, such techniques are not to be achieved without great personal risk. And I would go so far as to state that this was just the procedure that directly contributed to the premature demise of Albert Poisson, who did employ these means.¹⁹

As early as the age of thirteen, Poisson had thrown himself into a single-minded study of Alchemy. The Hermetic laboratory "Art" was directly conceived by Poisson as representing deliberate rejection of contemporary scientific positivist beliefs and standards. The youthful Poisson was usually seen heading toward the Bibliothèque National or the Bibliothèque de l'Arsenal, or any other of the several repositories of occultist wisdom in Paris, including the Bibliothèque Ste. Geneviève.²⁰ Within these sanctuaries of arcana, Poisson would immerse himself in indefatigable study of dusty books and manuscripts of incantations and talismans. As depicted in an old photograph, the youthful Poisson was heavily bearded, bushy-haired, wiry of

build, and hollow-cheeked. Feverish and spectral in appearance, dressed in a black frock coat, he is characteristically remembered as being surrounded by esoteric laboratory apparatuses; the caption on one picture identifies him as “Albert Poisson (‘Philophotes’) in his laboratory.”²¹ Although wasted with consumption and burnt out by overwork, he doggedly persisted in his hermetic researches until his death. As a cultural symbol, Poisson has been characterized by Waldstein as an “*exemple romantique*, directly confronting the fin-de-siècle, a period in which extreme materialism seemed to be in universal triumph.”²² The photograph mentioned above serves as the frontispiece of a fascinating book, appearing in 1897, that was dedicated to the near sacred memory of “Albert Poisson, le Rénovateur de l’Alchimie.” The avowed purpose of this modern manual of hermetic practices was to instruct the avid reader on “How to Become an Alchemist.”²³

Anyone familiar with biographical descriptions of Marcel Duchamp’s frugal, secretive, and vocationally dedicated lifestyle will see the applicability of the following quotations (my translation).²⁴ Here François Jollivet-Castelot describes the typical working day of the modern Alchemist, an itinerary directly representing that of the late “Philophotes,” Albert Poisson:

Immediately upon awakening, the Alchemist concentrates upon a short period of meditation, during which time he shall join together into a sympathetic chain *les grands Initiés de l’Au-Delà*. Then he shall quickly dispose the order of his occupations. His prayers should be made seated upon his bed, with his head and shoulders covered by a veil of fine linen. As soon as he has arisen (toward 9 a.m. in Paris, or 7 or 8 o’clock in the provinces), the Alchemist takes a cold or lukewarm tub-bath, scrupulously followed by magical ablutions.

Like every Initiate, the Alchemist is absolutely tidy; therefore, he shall meticulously perform his ablutions before all meals, work and sleep. His bath-water shall be lightly perfumed, above all with verbena, and the Initiate’s customary unguents (used for purifications or for magical operations) include heliotrope, chelidon, jasmine, lily, mistletoe, sage (etc.) and, above all, the rose, the initiatory herb. The morning repast should be light, with the object of leaving his spirit completely at liberty to develop. Then one takes tea, with biscuits or toast. Once the toilette is completed, the Hermeticist will work straight through until the next meal.

According to individual disposition, the morning hours shall be either consecrated to the task of writing or to the study of the masters. The noon meal will be plentiful on those practical work-days actually spent in the laboratory, but frugal when the day’s purpose is only to allow for the mental effort of composing notes; then tea or coffee are indicated as stimulants.

After this extended discussion of the modern Alchemist’s personal ablutions and delicate dining, the author describes the physical operations of

the Great Work itself. This description nearly exactly conforms to accounts of Marcel Duchamp at work in his New York studio, and to the kind of Notes belonging to Duchamp's *Green Box*. Here is how Jollivet-Castelot described the modern Alchemist's actual working procedures, which now seem rampantly artistic in character:

The work-day includes in part the collation of notes on laboratory experiments and these tasks are carried on until around six in the evening. The laboratory should be well ventilated but, above all, darkened. At least one portion of it will remain in complete darkness. In practise certain operations are improved by being performed when protected from light—especially when, for example, the astral-body is being projected. These operations are always done with complete propriety and in perfect order. The exercises shall be conducted with method, either according to the meaning of the texts consulted or following one's personal inspiration. Next comes the promenade, the purpose of which is to unlock the brain and to prepare for a forthcoming originality; as often as may be possible, this should take place in the countryside.

The Alchemist shall instigate poetic reflections and artistic sensations, for instance, by observing the setting of the Sun and the rising of the Stars and blond Selene. Dinner may be enjoyed in certain abundance—except when it is desirable instead to conjure up certain experiences of a lucid or magical sort. For these purposes, nocturnal tranquility is especially recommended. After dinner, and after consumption of tobacco, one resolutely sets about the extended work of composition, that is, should one be a *hermétiste écrivain*.

Our hermetic scholar-writer next gives us an idea of the modern Alchemist's curriculum, usefully providing for us the standard esoteric reading list of the day (which, in part, resembles the conjectured bibliography of Duchamp, also known for his placid consumption of tobacco):

Much later, but still at night in any event, the magical authors are studied and so, too, will the hermetic, esoteric writers. The Alchemist's library—should he be of a mind to build up one—will, above all, include the following tomes. First, there are the works of Éliphas Lévi: *Dogme et Rituel de Haute Magie*; *Clefs des Grands Mystères*; *Histoire de la Magie*. Next come the other authors: by Papus, *Traité Méthodique de Science Occulte*, *Traité Élémentaire de Magie Pratique*, *Le Tarot des Bohémiens*; by Sar Péladan, *Comment on Devient Mage*, *Comment on Devient Artiste*; by Stanislas de Guaita, *Au Seuil du Mystère*, *Le Temple de Saturne*; by Sédir, *La Culture Psychiaque et les Tempéraments*. Finally, there are the indispensable works of Albert Poisson, who provides a most excellent guide to all spiritual ascent: *Cinq Traités d'Alchimie*, *Histoire de l'Alchimie*, *Théories et Symboles des Alchimistes*.

It is also necessary to study and to meditate with perseverance upon the books by Louis Lucas, dealing with *La Chimie Nouvelle et la Médecine Nouvelle*, and those by Berthelot, *Les Origines de l'Alchimie* and *La Mécanique Chimique*, and Dumas's *Philosophie Chimique*, and Lothar-Meyer's *Théories Modernes de la Chimie*. Besides these, one also reads works by Niquet, Claude Bernard, Pasteur, Lodge, etc. Finally, one reads the historical classics of Alchemy: Raimundo Lull, Roger Bacon, Arnoldus da Villanova, Paracelsus, Albertus Magnus, Nicolas Flamel, Bernard le Trévisan, Zacharias, Philalèthes, Basile Valentine. These readings will all exercise the sagacity, patience and initiation of the Philosopher of Hermes.

Next follows an ethical prescription for the modern neo-Alchemist, and this too seems in complete conformity with admiring eyewitness accounts of the beatific decorum later characterizing the life and works of Marcel Duchamp:

But the Alchemist must not abuse either the theater or worldly pleasures, for intellectual dissipation would be the inevitable result. In every case, the Alchemist is never to forget his role as a guardian of the Occult Tradition. He should never engage in noisy set-tos, nor stir up arguments about those articles of faith pertaining to the domain of the Profane. Nevertheless, should the occasion arise, he should then affirm his opinions and beliefs, and these he will then maintain with conviction. He shall never depart from the most exquisite politeness and the greatest possible tolerance. The Adept is liberal-minded. Likewise, he continuously shows himself to be friendly and open with others—but he is always reserved in his manner.

However, all is not work and meditation for the modern Alchemist, a reserved and politely tolerant chap like Duchamp. At times, this Initiate will venture forth from his darkened laboratory, and at such times, just as we also know was notoriously the case with Marcel Duchamp, “he shall seek out female company, with whom he must also behave with decorous, even emotionally distant, restraint.”

Poisson was not the only practising Alchemist in late nineteenth-century France. There was, in fact, an organization established at that time, “L'Association Alchimiste de France,” founded by Poisson himself. The Alchemical Association of France boasted a Secretary-General and seven Councillors who met annually to report on their hermetic investigations and laboratory experiments. By July 1897, the Association had acquired two honorary members, the distinguished publisher Camille Flammarion (1842–1925) and the even more distinguished playwright August Strindberg (1849–1912). Another charter member was Théodore Tifféreau, the so-called

Alchemist of the Nineteenth Century. In 1889, Tifféreau published a book-length account reporting his successful transmutative efforts in exotic Mexico. Alas, repeated attempts to reproduce the magical process failed miserably upon Tifféreau's eventual return to materialist France.²⁵ Besides the published records of Tifféreau's evidently abortive efforts, one of Strindberg's neo-alchemical formulas has also, by chance, survived. The Swedish playwright's recipe is full of mysterious correspondences and other hidden meanings, but, according to learned opinion, it also contains a number of glaring arithmetical discrepancies, making it quite unworkable.²⁶ The celebrated author of *Miss Julie* had indifferently used two numbers (196 and 197) to represent the true atomic weight of gold (actually 197.2). In any event, besides confirming the fact that Symbolists were interested in Alchemy, Strindberg's and Tifféreau's modern hermetic failures (presumably not unique) demonstrate how little progress had actually been made in such endeavors since the time of Albertus Magnus and Nicolas Flamel.

The omnipresence of such hermetic ideas at this time in France is also illustrated by a famous passage encountered in a quintessential Symbolist novel, J. K. Huysmans's *Là-Bas* (1891). Huysmans (1848–1907) neatly pictured the current state of esoteric knowledge at the height of the Symbolist period and credited its wide diffusion to Éliphas Lévi. All this occurred, he says, in an age in which “Diabolism is quite up to date [and] there are committees, subcommittees, a sort of curia [of Occultism] which rules America and Europe.” Huysmans has his contemporary hero, Durtal, take “from one of the shelves of his library a manuscript.” This, as it turns out, is a book written by the celebrated hermetic artist of enigmas, “Nicolas Flamel, restored, translated, and annotated by Éliphas Lévi.” According to Huysmans, the operation must remain a secret:

Éliphas Lévi explained the symbolism of these bottled volatiles as fully as he cared to, but he abstained from giving the famous recipe for the Grand Magisterium. He was keeping up the pleasantry of his other books, in which, beginning with an air of solemnity, he affirmed his intention of unveiling the old arcana, and, when the time came to fulfill his promise, he begged the question, alleging the excuse that he would perish if he betrayed such burning secrets. The same excuse, which had done duty through the ages, served in masking perfect ignorance of the impoverished occultists of the present moment.

Nevertheless, Durtal thinks he knows better (just as Strindberg presumably did):

“As a matter of fact, the ‘Great Work’ is simple,” said Durtal to himself, folding up the manuscript of Nicolas Flamel. “The hermetic philosophers discovered—and modern science, after long evading the issue, no

longer denies—that the metals are compounds, and that their components are identical. They vary from each other, according to the different proportions of their elements. With the aid of an agent, which will displace these proportions, one may transmute mercury, for example, into silver, and lead into gold. And this agent is the Philosopher's Stone: mercury—not the vulgar mercury, which to the Alchemists was but an aborted metallic sperm—but the Philosophers' Mercury. . . . Only the recipe for this mercury, or Stone of the Sages, has ever been revealed—and it is this that the philosophers of the Middle Ages, the Renaissance, all centuries, including our very own age, have sought so frantically.²⁷

For evidence pointing to the entrance of alchemical metaphor into the province of Symbolist art criticism and theory, as before, our best guide is Albert Aurier. Aurier is known, for instance, to have owned Figuier's *L'Alchimie et les alchimistes*, and Aurier's active interest in Alchemy has been documented in several places in his writings.²⁸ In one of his published critiques, Aurier referred to young artists, working outside the Salon and its oppressive academic milieu, as "obscure Alchemists" bent on creating a putative "Grand Oeuvre" for the coming era. Further articles by Aurier on artists as diverse as Monet, Renoir, Pissarro and van Gogh all contain explicit references to their art as representing the alchemical process. However, nowhere does Aurier suggest that their art explicitly symbolized the *magnum opus* of the medieval hermeticists. Instead, Aurier employed alchemical language and motifs as an analogue, or tool of expression, by which to suggest, rather than literally describe, the nature of his subjects' decidedly modernist art. This becomes especially apparent in his overheated evocation of Vincent van Gogh's creative process. According to Aurier, van Gogh created "flaming landscapes [which] appear as the effervescence of multicolored enamels emerging from some diabolical crucible of an Alchemist; frondescences, like the patinas of ancient bronze, new copper and spun glass; gardens of flowers, which appear less like flowers than the most luxurious jewelry made from rubies, agates, onyxes, emeralds, corundums, chryso-beryls, amethysts, and chalcedonies."²⁹

As poetry, such metaphorical alchemical motifs seem to have their immediate prototype in the verse of Baudelaire, for example, in *Les Fleurs du Mal* (1855): "It is Satan-Hermes Trismegistus who lulls our enchanted spirit and the rich metal of our will; everything is volatilized by that knowing Alchemist."³⁰ To cite a post-Baudelairean example of the same usage of standard alchemical poetic metaphors, we have the case of Stéphane Mallarmé (also read by Duchamp), who claimed with equal fervor that: "I have just completed a very long descent into nothingness. . . . I never put an end to my work, which is the Magnum Opus, such as the Great Work was called by our ancestors, the Alchemists."³¹ Arthur Rimbaud's famous *Sonnet des voyelles* is another instance of blatantly alchemical Symbolist verse, carefully explicated as such by

Enid Starkie in her standard monograph on the short-lived Rimbaud (1854–1891).³²

Whereas many more examples of the Symbolist Artist as Modern Alchemist could be quoted, it is enough to cite finally the example of a poem by Jules Laforgue (1860–1887), “Encore à cet astre.”³³ According to Duchamp’s own admission, this was the Symbolist-era poem that provided the immediate inspiration or textual source for the *Nude Descending a Staircase* (1911–12: MD-63, 64), and both canvases had their immediate origin in Duchamp’s 1911 pencil sketch, which is itself carefully labelled: “Encore à cet astre” (MD-60). Given the universally acknowledged historical significance of Duchamp’s notorious canvas of a hermetic *Nude Descending a Staircase*, the single artwork by him likely heard of by the layperson, the real nature of its textual grounding in Laforgue’s verses deserves to be subjected to a new kind of contextual scrutiny, a detailed hermetic distillation.

A careful reading of Laforgue’s “Once Again Toward That Star” reveals that it deals with aspiration toward a state of higher purity and consciousness, what should properly be called occultist “self-realization” (or, in postmodern terms, “empowerment”). Presumably self-realization is also the subject of Duchamp’s painting, acknowledged by the artist to have been derived from this now obscure poem. What Laforgue called “this star” turns out to be the Sun, radiant and golden. Laforgue opened his verses with an angry shout: “Strange Sun: You dream away!” Laforgue is lamenting the loss of the energies of the meditative Sun, and the next lines announce a mood of growing disillusionment, for the Sun cannot brighten the pallor of the foolish and self-deceiving mob below, given to ignorant, narcotized, asinine pursuits and vain amusements: “Behold them, the drugged puppets, drinkers of asses’ milk and of coffee.” The Sun’s healing, elixir-like, golden rays coming from on high have been rejected. They cannot penetrate, transmute, or enlighten the growing sickly pallor of the ignorant world below: “In vain, ceaselessly, I attempt to caress their backbones with my fires, but they continue to sicken and to blanch.” The next lines reveal the failure of the hermetic operation, when the Sun’s call to suffering humanity below is cynically mocked by the response:

Oh, it’s just you, you who have nothing but frozen rays!
But, as for us, we’re blooming with health and youth!
That’s right; the Earth is nothing but one big carnival!
Our shouts of merriment blast the wheat flat.

Encore à cet astre is full of blatantly alchemical motifs, and the nature of these becomes unveiled in its last two stanzas, the cumulative result being a failed attempt at alchemical union. In this interpretation, the climax of Laforgue’s poem metaphorically represents a false procedure, one that has led

to the loss of the elusive Philosopher's Gold. As a consequence, the resulting alchemical material becomes a mockery of its original intention: darkened, spotted, blemished, eaten up, and corrupted due to a lack of spiritual integration. In short, there is no *coniunctio oppositorum*, only *putrefactio*, and thus Laforgue's poem ends in this pessimistic fashion:

You're alone, with your teeth chattering, because your spreading blemishes are eating you up, oh Sun, like a pox put upon a vast golden lemon, soon to be but a flaxen mockery. In spite of so many settings, dressed in royal purple and glory, you end up mocked by the heartless stars, a pocked, yellow star—nothing but a flamboyant, shimmering froth!

We may begin with the most blatant alchemical clue, "Astre," appearing in the title. The standard meaning of that term in hermetic terms is given by Dom Antoine-Joseph Pernety in his *Dictionnaire Mytho-Hermétique* (1787):

STAR [*Astre*]. In the terminology of Alchemy this represents the igneous, fixed substance, which is the principle of multiplication, representing the extension and generation of everything. This substance always herself tends towards generation, but this only occurs once she is excited by celestial heat, which is found everywhere.

STAR [*Astrum*]. This is a term employed by the Alchemical Philosophers to signify one particularly great virtue, power or property; this is acquired by the act of prepartation which confers it onto some thing.

Similar significance attaches to:

STARS OF THE PHILOSOPHERS [*Étoiles des philosophes*]. Alchemists commonly lend this name to the colors appearing in the vessel during the course of operations belonging to the Great Work. But ordinarily they use the terminology of "Planets and Stars" in order to signify their metals, or they might use "terrestrial planets," meaning vulgar metals.³⁴

As even the initial outcry by Laforgue —"*Espèce de Soleil . . .*"—reveals, we are dealing with traditional literary *topoi*, alchemical metaphorical imagery boasting of a venerable artistic pedigree. Laforgue had explained that it is a certain kind of a Sun that so idly dreams; in fact, this particular "*espèce de Soleil*" had been treated long before by Shakespeare, an author whom Laforgue is known to have cultivated. In Shakespeare's *King John* (III, i), we find that:

The glorious *Sun* stays in his course and *plays the alchemist*
Turning with the splendour of his precious eye
The meagre cloddy earth to glittering gold.

But Laforgue's "meagre cloddy earth" fails to transmute into "glittering gold," and only turns into a falsely shimmering froth. Because of the failure of the extended Great Work, the end result is only a sadly tarnished surface, looking like "un vaste citron d'or." Laforgue's lemony, ersatz gold represents no poetic invention on his part: according to traditional alchemical laboratory procedures, a certain process called "citronizing" was the specific means by which to achieve a color denoting imminent consummation of the *Grand Oeuvre*.³⁵ Within the context of Laforgue's poetic magisterium, the desired union was not, in the end, perfected.

The search for alchemical gold is, Laforgue suggests, in the end only a vain illusion. We are predestined to disappointment in our fruitless attempts at absolute enlightenment; we are, accordingly, left *sans le savoir*, as Duchamp would later put it. The inevitable failures of the Alchemists' boastful promises to transmute the *materia prima* into priceless gold produced many skeptics. Among the even earlier critics of Alchemy was Geoffrey Chaucer (1340–1400), who declared in the "Canon's Yeoman" from the *Canterbury Tales* that:

To moche folk we [alchemists] bring but illusioun,
And borrow gold, be it a pound or two,
Or ten or twelve, or many sommes mo,
And make them thinken at the leaste waye,
That of a single pound we can make tweye.
Yet it is fals . . .

The Yeoman in Chaucer's tale was the classic dupe taken in by the wiles of a false magus, what Poisson would call a "souffleur." In this text, Chaucer used a phrase that exactly parallels Laforgue's mention of a "blond moqueur," a fact merely underlining the timelessness of so many standard alchemical motifs: "We blonder ever, and gaze into the fyr, / And for al that we faile of our desire." Similarly, Chaucer echoes yet another of Laforgue's distinctive phrases. Where, describing base matter below, the Frenchman said that ". . . *ils vont étiolés*" (become blanched, wan), as the Englishman put it centuries before, "And where my colour was both fresh and red, / Now it is *wan*, and of a *leden hewe*." Chaucer also mentions the elusive Philosopher's Stone, here referred to as a "powder of projection" (like Duchamp's *Élevage de poussière*), which is:

A powder, I know not whereof it was
I-made, either of chalk, either of glas,
Or some what else, that was nought worthy a flye.

The last two stanzas of Laforgue's poem describe an action (or reaction) between Above and Below, or between the Sun's superior perfection

and the inferior imperfection of the Earth. Read in alchemical allegorical terms, Laforgue's strident "espèce de Soleil" becomes a symbol of the elusive Spiritual Gold, the metaphorical goal of which the Hermetic Philosophers so vainly dreamed (*songer*). This superior desideratum is directly contrasted by Laforgue to Earth, a drugged and blemished realm placed below, and so representing base matter and directionless animal passions. In this context of blockage and frustration, we may now translate the underlying sense of the title put to Laforgue's poem's to mean: "Again, again, and again after that (unattainable) star." Ideally the Earth, always poetically situated *là-bas* by the hermetic writers, should be desirous of achieving spiritual union with the heavens above, *là-haut*. Only in that way might it acquire the beneficial aspects of the Sun's elixir-like, golden enlightenment. Alas, as Laforgue pessimistically reveals, the attempt to achieve this spiritual union has been frustrated. This happens, says the Symbolist poet, because the drugged denizens of the World Below—*Là-Bas*—have rejected the Sun's illumination, revelling instead in their own squalid animal pleasures. The very idea of spiritual transmutation and assimilation, here an attempt to establish correspondences between that which is *au-delà* and that which is *là-bas*, has failed abysmally in the dreary picture ironically drawn by Jules Laforgue.

Instead of real gold, all that these false magi (*tous souffleurs, sans le savoir*) can achieve is fake gold, or no gold at all. According to Laforgue, "the wheat is dashed flat" by their vain boasts, and in this case we have yet another familiar hermetic image. Golden ears of wheat were frequently resorted to by the Alchemists to symbolize regeneration or, in a more specific sense, the grains of gold itself.³⁶ The artifices of the false magi are clearly revealed, since "you shall be mocked by the heartless stars." In order to succeed, all alchemical procedures had to be carried out under favorable astrological auspices; if not, the result would be "a mockery." Laforgue pictures a diseased Sun, sickly false gold, "eaten up like a pox upon a vast golden lemon, soon to be but a flaxen mockery." In itself this motif may be taken to represent a sign of the Alchemists' *putrefactio*. Putrefaction was a process that had been explained often by the hermetic scientists. For instance, in the sixteenth century, Paracelsus took *putrefactio* to mean:

Generation, or the procreation of all natural things, that proceeds through Alchemy. To speak of this in general terms, one might say that everything on Earth would be born from Nature with the help of Putrefaction, that is, through Decomposition. Therefore Putrefaction is the highest level, and also the first step towards Generation, which is the process that transmutes all natural things from their first forms and being, likewise also altering their powers and virtues.³⁷

Obviously, Jules Laforgue forged no new links in the alchemical chain of Symbolist poetic imagery. Neither did Duchamp (and, given its great

art-historical significance, his painting of *The Nude Descending* will receive further hermetic analysis in chapter 4).

The Symbolists were not the only modernist artists and poets to resort to traditional alchemical imagery. Usage of such metaphorical language also proved consistent with an emerging Cubist vision, as demonstrated by the poetic language of Guillaume Apollinaire (1880–1918), perhaps the most influential of all theorists of the new art. In *Le Bestiaire* (1911), this Cubist theoretician had Orpheus speak of a certain voice of artistic inspiration, and “This is the voice which was made comprehensible by light, and of which Hermes Trismegistus speaks in his book, the *Poemander*.”³⁸ But what is the larger context for this odd mention of the founder of the Hermetic Arts, including a timely citation of his major treatise? According to Apollinaire, as is typical of the international vanguard fraternity, the Cubist painters “live in the anticipation of a sublime art,” and, moreover, “contemporary art, even if it does not directly stem from specific religious beliefs, does nonetheless possess some of the characteristics of great, that is to say, *religious art*.”³⁹ Following our examination of certain key texts favored by the Symbolist poets, we might assume that for Apollinaire those specific religious beliefs, obviously equally nonsectarian and wholly secularized, were most likely the occultist, nonspecific, pseudoreligious beliefs propagated by the Esoteric Tradition in their many publications. In the case of Apollinaire, we do have something like proof, namely the contents of his personal library, containing many standard occultist texts of the time, and also the fact, more specifically “hermetic,” of his knowledgeable review, published in 1914, of a new edition of an alchemical emblem book, the *Mutus Liber*, a standard hermetic treatise evidently also known to Duchamp (see figs. 4, 7).⁴⁰

Apollinaire invented the term “Orphism” to designate a sort of autonomous art-historical movement that grew out of what may be called orthodox Cubism; its titular model, Orpheus, was earlier seen by the Symbolist theorists as an essentially occultist and, simultaneously, early modernist paradigm of artistic creation and initiation.⁴¹ The key elements of Apollinaire’s Orphism, itself a model Symbolist exercise,⁴² are as follows: a theory of metaphysical correspondences; the idea of music as an expression of synaesthesia; a rejection of those traditional mimetic functions formerly associated with painting; a concomitant exaltation of all visual arts communicating inner meanings of universal significance, with these perceptions being achieved through a certain process of quasi initiation, so allowing privileged insights derived from tapping into certain higher levels of consciousness. Such ideas are paralleled in Kandinsky’s *Über das Geistige in der Kunst*, a work which, like Apollinaire’s essays, is essentially Symbolist in its fundamental esoteric biases and bases, not to mention its known Theosophical (Occultist) basis. In a later essay by Apollinaire, “The New Spirit and the Poets” (1913), the hermetic imagery first popularized by the Symbolist writ-

ers was elaborated even further. According to this essentially mystical interpretation of the rise of Cubism, writes Apollinaire,

At a later date, those who study the literary history of our time will be amazed that—like the Alchemists—the [early modernist] dreamers and poets devoted themselves, without even the pretext of a Philosopher's Stone, to inquiries and to notations which exposed them to the ridicule of journalists and of snobs, their contemporaries. . . . These new combinations, these new works—they are the art of life, which is called Progress.⁴³

For the complementary conclusion that such standard hermetic imagery was also commonly shared by the Zurich Dada artists, we have the written testimony of Hugo Ball (1886–1927). In a diary entry written in June 1916, Ball describes himself acting in a Dada performance piece “like a magical bishop.” At this time he premiered what he called *Verse ohne Wörter*, “a new genre of poems, poems without words, or sound-poems,” *Lautgedichte*. The function of the strange verbal actions practiced by Ball and like-minded Dada artists was to express their mutual realization (as the Symbolists had before them) that “we must return to the innermost alchemy of word.” To do so, “we must even give up the word too, to keep for poetry its last and holiest refuges [by] accepting words (to say nothing of sentences) that are not newly invented for their use.” In fact, in 1921 Ball even attributed the very invention of the word *Dada* to the same kind of hermetic operation: “When I came across the word ‘dada,’ I was called upon twice by Dionysius the Areopagite: ‘D.A., D.A.’ [Richard] Huelsenbeck wrote about this mystical birth; I did too in earlier notes. At that time [1916] I was interested in the alchemy of letters and words.”⁴⁴ Commenting on this observation, John Elderfield, the editor of Ball's diaries, argues that “Ball's unique version deserves the name ‘esthetic mysticism’ akin to such magico-spiritual philosophers as the alchemists and theosophists.” Overall, for Ball and his fellow Dadaists, continues Elderfield, “art generally is something irrational, primitive, and complex that speaks ‘a secret language’ [and] Ball best expressed this idea of esoteric meaningfulness when speaking of the ‘innermost alchemy of the word.’”⁴⁵

The most notorious example of post-Symbolist alchemical imagery in French artistic theory was that employed by André Breton (1896–1966), the Pope of Surrealism. Breton's many affinities with mainstream Symbolist art theory need not detain us here, with the exception of one familiar and ongoing leitmotif, *le Rêve*. Besides being a recognized core idea in Symbolist poetics, “the Dream” was also much discussed by another spiritual step-child of *Symbolismus*, Sigmund Freud (1856–1939), who published *The Interpretation of Dreams* in 1900. As seems conveniently overlooked, the *Rêves-Traïme*

were also much on the minds of Freud's Symbolist-era contemporaries, the ever disparaged Occultists. Prominent discussions of esoteric dream states, even somnambulism—itsself pointing to automatism as a helpful aid to artistic creation—were produced by some once widely read occultist authors, including H. P. Blavatsky, Rudolf Steiner, Edward Carpenter, Claude Bragdon, Frederick W. H. Myers, P. D. Ouspensky, among others.⁴⁶ The ultimate source of all this esoteric discussion, hence the real cradle of avant-garde automatism and “the image made by chance,” was Mesmerism, particularly as it was adapted and widely popularized by the Spiritualist mediums of the Victorian era.⁴⁷

Since Breton's ideas on the topic of *le rêve* are so well known—even though their real historical context has been ignored—it is sufficient to recall his central question, “Can not the dream also be used in solving the fundamental questions of life?” The answer was obvious to Breton: “I believe in the future resolution of these two states, dream and reality, which are seemingly so contradictory, into a kind of absolute reality, a *sur-réalité*, if one may so speak.” The traditional, conventionally Symbolist, character of Breton's *trouvaile* becomes apparent when he concludes, “Let us not mince words: the marvelous is always beautiful, anything marvelous is beautiful; in fact, only the marvelous is beautiful.”⁴⁸

Chance (*le hasard*) also figures large in Breton's method, just as it does in Duchamp's (see chapter 7). Indeed, Chance defines Breton's “SURREALISM, n[oun],” which for him means: “Psychic automatism in its pure state, by which one proposes to express—verbally, by means of the written word, or in any other manner—the actual functioning of thought.” This process flourishes “in the absence of any control exercised by reason, exempt from any esthetic or moral concern.” The immediate result for Breton is that “the Surrealist atmosphere created by automatic writing, which I have wanted to put within the reach of everyone, is especially conducive to the production of the most beautiful images [and] by slow degrees the mind becomes convinced of the supreme reality of these images.”⁴⁹ In the specifically Surrealist-automatist situation, the environment “especially conducive to the production of the most beautiful images,” one should not however think too much about the niceties of conscious composition; according to Breton, “all that results is the suspension of the Occult, that admirable help.” Admirably aided by conventional esoteric insights, Breton's immediate goal was “the *poetic consciousness of objects*, which I have been able to acquire only after a spiritual contact with them, repeated a thousand times over.” At such a moment of poetic-spiritual liminality, “with a [not unwelcome] shudder, we cross what the Occultists call dangerous territory.”⁵⁰

Our main interest here remains the ongoing polemics of Alchemy in the post-Symbolist, Surrealist world. The hermetic metaphor did not become quite so blatant as it had been in Symbolist art criticism until the publication of Breton's “A Letter to Seers” (1925) and his *Second Manifesto of Surrealism*

(1930). Previously, Breton's Occultism was just that, *occulta*, "hidden," but still largely undifferentiated Esotericism. In the "Letter," Breton stated that he was now "speaking of the great Secret, of the Un-Revealable." Accordingly, this epistle is being sent out to "the man of today, who would consent to search in the stars for the head of the pin, the famous pin he can't get out of the game anyhow." Poor fellow! According to Breton, this deluded chap "scarcely believes in the invention of the Philosopher's Stone by Nicolas Flamel, for the simple reason that the great Alchemist seems not to have got rich enough from it!"⁵¹

Scarcely five years after the appearance of this first alchemical affirmation, we read in the *Second Manifesto* that,

"Alchemy of the Word," this expression which we go around repeating more or less at random today, *demands to be taken literally*. If the chapter of *Une Saison en enfer* that they [the writers of Dada] specify does not perhaps completely justify their aspiration, it is, nonetheless, a fact that it [*l'Alchimie*] can be authentically considered to be the beginning of a difficult undertaking, one which Surrealism alone is pursuing today. . . . Is the admirable fourteenth century any less great as regards human hope, and, of course, of human despair, because a man of [Nicholas] Flamel's genius received from a mysterious power the manuscript, which already existed, of Abraham the Jew, or because the secrets of Hermes had not been completely lost?⁵²

For Breton, as for so many other moderns, Alchemy is quintessential, "lost wisdom," the *philosophia perennis* retrieved by the great Symbolist poets. As Breton tells it, the repossession of ancient *gnosis* was due to a quasi-divine, decidedly occultist intervention:

In our own time, everything comes to pass, as though a few men had just been possessed by supernatural means of a singular volume, resulting from the collaboration of Rimbaud, Lautréamont, and a few others, and that a voice said to them, as the angel said to Flamel, "Come, behold this book, look well; you will not understand a line in it, neither you nor many others, but you will, one day, see therein what no one could see." They are no longer in a position to steal away from this contemplation. *I would appreciate your noting the remarkable analogy, insofar as their goals are concerned, between the Surrealist efforts and those of the Alchemists.*⁵³

Those "remarkable analogies" in thought processes between the Surrealists and the Alchemists are then defined in detail by Breton:

The Philosopher's Stone is nothing more or less than that which was to enable man's imagination to take a stunning revenge on all things, which brings us once again, after centuries of the mind's domestication

and insane resignation, to the attempt to liberate, once and for all, the imagination by the “long, immense, reasoned derangement of the senses,” and all the rest.⁵⁴

After quoting some of the poetic, also quite pictorial, imagery found in Flamel’s *Livre des Figures Hiéroglyphiques*, Breton dramatically asks his readers, “Doesn’t this sound like the Surrealist painting?”⁵⁵

Breton sums up his neo-hermetic rhetorical arguments by saying, “let it be clearly understood that we are not talking about a simple regrouping of words, or a capricious redistribution of visual images, but of the re-creation of a state which can only be fairly compared to that of madness.” However ironic its intentions, this self-instigated madness offers, like Occultism itself, a very privileged body of insight. As such, this represents an avant-garde *arcanum* which must zealously be kept forever veiled from the eyes of the vulgar and the uninitiated. As is additionally claimed by Breton,

This question of malediction, which until now has elicited only ironic and hare-brained comments, is more timely than ever. . . . It is necessary to emphasize once again, and to maintain here the “Maranatha” of the Alchemists, set at the threshold of the work to stop the profane. . . . The approval of the public is to be avoided like the plague. It is absolutely essential to keep the public from entering, if one wishes to avoid confusion.⁵⁶

Whether Occultism in general, or Alchemy in particular, they were, for Breton, all the same thing. Impossible manifestations that we might see as arising from various branches of the Esoteric Tradition represent for Breton and his followers a higher truth, namely, “those sciences which for various reasons are today completely discredited. I am speaking of astrology, among the oldest of these sciences, metaphysics (especially as it concerns the study of crypto-aesthesia) among the moderns.” Therefore, as he loudly demanded, “I ASK FOR THE PROFOUND, THE VERITABLE OCCULTATION OF SURREALISM.”⁵⁷

Breton was, of course, not the only adherent to “Occultation” in general or to Alchemy in particular. According to a recent study, Max Ernst’s famous suite of collages, *Une Semaine de Bonté* (1933), closely adheres to an alchemical scenario, one which the art historian is now prepared to expose as “providing the central characters, many of the incidental motifs, and the basic chapter structure [of Alchemy].” Evidently this was the direct result of “Breton’s call for the occultation of Surrealism.”⁵⁸ The results of this kind of careful iconographic analysis, showing in this particular example the actual (mostly modern) sources for Ernst’s ingeniously recycled alchemical iconography, also demonstrates that when this distinguished modern artist spoke about Alchemy in relation to the creative act, he was not merely making a vaguely metaphorical reference. To the contrary, we now understand that

Ernst (1891–1976) had some very specific knowledge of the subject, and that he also knew exactly how its unique iconography looked.

According to observations recorded in his book *Beyond Painting* (1948), the decidedly modernist, largely automatic and also ready-made technique of collage functionally operates like Alchemy. For Ernst, collage, which operates as a kind of *coniunctio oppositorum*, specifically represents

the alchemy of the visual image [and] the miracle of the total transformation of beings and objects, with or without modification of their physical or anatomical aspect. What is the mechanism of collage? I am tempted to see in collage the exploitation of the chance meeting of two distant realities on an unfamiliar plane, or, to use a shorter term, the culture of systematic displacement and its effects. . . . The mechanism of collage, it seems to me, is revealed by this very simple example. Complete transmutation, followed by a pure act, as that of love, will make itself known naturally every time the conditions are rendered favorable by the given facts: the coupling of two realities, irreconcilable in appearance, upon a plane which apparently does not suit them. . . .

It is an alchemical product [and] one might define collage as an alchemy resulting from the unexpected meeting of two or more heterogeneous elements. These elements are provoked either by a will which—from a love of clairvoyance—is directed toward systematic confusion and disorder of all the senses (Rimbaud), or by hazard [chance], or by a will favorable to hazard. Hazard, as Hume defined it, is “the equivalent of ignorance in which we find ourselves in relation to the real causes of events,” a definition which is increasingly corroborated by the development [in modern physics] of calculations regarding probabilities, and by the importance which this discipline holds in modern sciences and practical life, in microphysics, astrophysics, biology, agronomy, demography, etc.⁵⁹

A case illustrating the metaphorical approach to Alchemy is the Swiss-born master of fantasy, Paul Klee (1879–1940). Klee was early championed by the French Surrealists, and was one of the few modern painters mentioned by name in the *First Manifesto* of 1924.⁶⁰ For Breton, Klee was particularly to be recommended as a pioneer of automatism, an artistic practice which we should now recognize to have arisen nearly a century earlier directly out of populist Spiritualist experiments. Klee’s own writings, however, make plain the fact of a much more profound, quasi-philosophical impulse, one heavily redolent of traditional hermetic dialectics expressed by the perennial formula of the *coniunctio oppositorum*. Klee’s transcendental and blatantly mystical aspirations were best manifested in his *Schöpferische Konfession* (1920). As Klee claimed,

Art does not reproduce the visible; rather, it makes visible. . . . Formerly, we used to represent things, visible on earth. . . . Today, we reveal the

[occult] reality that lies behind visible things, thus expressing the belief that the visible world is merely an isolated case in relation to the universe, and that there are innumerable other, latent realities. . . . Often, seemingly contradicting the rational experience of yesterday, there is a striving to emphasize the accidental. By including the concepts of good and evil, a moral sphere is created. . . . The simultaneous existence of the Masculine Principle—evil, stimulating, passionate—and the Feminine Principle—good, growing, calm—result in a condition of ethical stability. To this corresponds the simultaneous unification of forms, movement and counter-movement, or, to put it more naively, the manifestations of visual oppositions. Out of abstract elements, a formal Cosmos is ultimately created, independent of their groupings as concrete objects or abstract things closely similar to Creation. . . . Art is a simile of the Creation. Each work of art is an example, just as the terrestrial is an example of the Cosmic.⁶¹

According to this artist's most revealing "creative confession," a specific modernist physical technique like automatism is not only directed against the rationalist-materialist bias of previous realist art, but simultaneously advocates the revelation of those hidden realities long since championed by the Esoteric Tradition. As in any occultist scripture, these hidden realities are taken to be superior to the merely visual appearances of the ordinary world. Klee's supposedly artistic statement, which deals with a deliberate process of dematerializations of mundane (and therefore "false") appearances, is a classic expression of wholly conventionalized occultist thinking. In the more particular sense, Klee's *Schöpferische Konfession* is also clearly hermetic. This early modernist artist-spokesman includes an ethical erotic pairing—Male vs. Female—as the signature of a Cosmos that is full of contradictory principles, good vs. evil, heavenly vs. terrestrial, and so forth. As Klee concludes, it is the Artist's ethical obligation to "reconcile the opposites," i.e., produce the hermetic *coniunctio oppositorum*, thereby recreating primordial Cosmic Unity. Although little studied as yet, the alchemical-artistic phenomenon is very near to our day and place.

The infusion of hermeticism into American avant-garde painting of the post-World War II period warrants far more attention than can be allowed for it here.⁶² This alchemical advance occurred on two fronts. The first was French in origin, via the writings and the physical persona of André Breton, or, more directly, via Kurt Seligmann (1900–1962), another Surrealist refugee from Nazi-occupied France. A now mostly forgotten painter and the close friend of many important figures in the post-war New York avant-garde scene, Seligmann had a marked scholarly interest in the history of esoteric philosophies. Also a prolific writer, in 1948, Seligmann produced a comprehensive, well-illustrated historical study of Occultism that may still

be profitably read by serious scholars of the modernist extensions of the Esoteric Tradition. As Seligmann forthrightly states in the introductory note of his *Mirror of Magic* (1948), "As an artist, I was concerned with the esthetic value of magic and its influence upon man's creative imagination. The relics of ancient peoples indicate that religio-magical beliefs have given a great impulse to artistic activities, a stimulus which outlasted paganism and produced belated flowers in the era of Christianity."⁶³ The second hermetic advance into the largely virgin territory of American avant-garde art was of Swiss origin, via the archetypal-alchemical investigations of Carl Jung (1875–1961). But any impact exerted by the well-known Jungian overlay comes later, for his idiosyncratic alchemical interpretations only become significant in American thought after 1950, once Jung's alchemical studies, which first appeared in German in 1929, finally became widely available in translation. For instance, the English version of Jung's *Psychology and Alchemy* was first published in 1968 as volume 12 in the Bollingen Foundation edition of the "Collected Works."⁶⁴

Certainly the most prominent of the American Abstract Expressionist painters (at least for the general public) was Jackson Pollock (1912–1956), an acquaintance of Seligmann's. The celebrated "drip painter" was also an incorrigible alcoholic. Late in 1939, he was persuaded to consult a New York Jungian psychiatrist, Dr. Joseph L. Henderson, who encouraged the artist to draw (metaphorically and literally) upon his unconscious for "Jung's archetypal dominants."⁶⁵ The first totally dripped paintings began in 1947 and, in his first one-man show in January 1948, Pollock's canvases were entitled in such a way as to make unmistakable the impact upon him of Jungian hermetic symbolization. The artist's biographer, B. H. Friedman, correctly observes in detail how these seminal works "reveal very markedly Pollock's sense of a magical, god- and/or devil-like role as a creator. Most of the titles [including a canvas called *Alchemy!*] group easily around the classic [hermetic] elements: *EARTH . . . AIR . . . FIRE . . . WATER.*"⁶⁶ Other ideas current with American "Action Painters" were those of timelessness and imminent tragedy. These emotional motifs also find their near parallel expression in Seligmann's description of the alchemical process as a "struggle," a metaphorical grappling with unfathomable primordial truths. "In this struggle," says Seligmann, "the alchemist sought a union of soul and mind with the divine. . . . The best that existed below, the adept believed, could only be linked to what was lowest above."⁶⁷

Another author claims that presently—at our own fin de siècle, exactly a century after the Symbolists first pioneered the provocative idea—Alchemy has once again become the perfect metaphor for alert artists currently attempting to describe a baleful postmodernist, contemporary condition. According to William Dunning,

Postmodernists are often fascinated with Alchemy because it echoes their own interests in the following seven interrelated traits:

1. Alchemy is driven by myth rather than history. Poststructuralists favor myth over history because history tends to lay claim to an objective truth, which they do not believe exists.
2. Alchemy has generated a host of archetypal mythic images and ideas. Jung tells us that Astrology and Alchemy have always been driven by archetypal myth and mythic pictures from the collective unconscious, which is in direct opposition to the [orthodox] modern concept that that real meaning issues from the rational mind of exceptional individuals.
3. Alchemy did not originate in Europe. Postmodernists feel that the traditional study of history has focused on European events and ignored ideas and contributions from the rest of the world. They perceive Alchemy as a global paradigm. Its most important early centers were [they claim] Egypt, India, and China; it spread to early Greece from Egypt. After the fall of Rome, Alchemy almost disappeared from Western Europe, but it survived in North Africa, and during the eleventh and twelfth centuries a reawakening of interest in science led to the discovery of African accomplishments.
4. Nothing has had a more enduring impact on human ideas and world view than Alchemy. Perhaps this is because Alchemy and Astrology (the other sacred science) have no chronological limits or geographical boundaries. They persist from before history to the present.
5. The nature of the alchemical process is to concentrate on both the micro- and the macrocosmic. The alchemical emphasis on investigating reality from both the micro- and the macrocosmic point of view was in evidence in the Middle Ages, the Dutch culture of the fifteenth through seventeenth centuries, and now postmodernism. This interest in the micro- and macrocosmic suggests a connection with linguistics: Saussure insists that meaning is generated by a word's relationship to other words, as well as by its relationship to the whole.
6. The Philosopher's Stone is a metaphor for finding value in the "other," the disenfranchised who are often ignored or discarded by a foolish society. Alchemists believed the Philosopher's Stone was "the most precious of all things, constantly overlooked by us all." When past societies favored one group, they often discarded others as worthless. When postmodern society finally began to perceive value in once-discarded groups, it echoed the metaphor of the Stone.
7. Many early treatises on Alchemy were written by women and thus may offer a feminine point of view as a supplement to the usually dominant masculine point of view. This fact adds resonance to the metaphor of the Philosopher's Stone in postmodern eyes.⁶⁸

The preceding examples, to which many more could be added,⁶⁹ appear to indicate an ubiquitous presence of hermetic language and alchemical

imagery in art and poetry since the Symbolist period. In short, it was in the air, and so, had he wished to partake of it, it *was* readily available to Marcel Duchamp. Evidence to be produced in the chapters following indicates that he certainly *did* so desire. Subsequent discussions of Alchemy will be specifically related to the unique iconography of Duchamp's work, and will also establish (particularly in chapter 7) a much broader, but altogether esoteric context for Duchamp's celebrated concern with chance effects, produced by a well attuned automatist sensibility. While this aleatory trait was of course shared by many other of Duchamp's contemporaries, none pursued the idea quite as deeply as the ever mysterious Marcel.

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the cultural shaping of an artist-iconoclast: Duchamp in France, 1887–1915

Before embarking upon an analysis of the now iconic art of Marcel Duchamp, it will be useful first to examine his role as a mere mortal. The apparently well-molded outer surface of this artist's life seems essentially boring.¹ That perception notwithstanding, in examining his curriculum vitae and public persona, we shall be on the alert for the few clues appearing in his usually genteel overt behavior which might relate this witty and self-effacing French *bourgeois gentilhomme* to an aggressively bewildering and complex body of work. At the outset, the reader should be advised that all the evidence appears to suggest that the life of Duchamp was carefully constructed (most likely with ironic intent) to serve as a mask by which to deflect any understanding of the serious and private pursuits carried out in his art.²

Duchamp's public mask was the opposite of the vulgar and stereotypical bohemian, *l'homme sauvage*, artist envisioned by Hollywood, a defiant *Lust for Life* generally propelled by *The Agony and the Ecstasy*.³ As described in his mature years by Pierre Cabanne, Duchamp "looked like a sly cleric: lean-faced, thin-lipped, smoking Havana cigars—which he allowed to go out seemingly for the pleasure of relighting them with the help of about a dozen matches. He had a penetrating gaze but a soft voice, and his whole being suggested a rather disconcerting serenity. He had revolutionized first America, and then the art of his time, without noise or fuss."⁴ Calvin Tomkins similarly portrayed the amiable artist:

Sitting relaxed in an armchair, wearing a red-checked, soft wool shirt and flannel slacks, and smoking an inexpensive cigar, Duchamp himself gives somewhat the impression of a moderately well-to-do philosopher who is enjoying his retirement and who would be amazed to find that he is the idol of a growing cult. He does know it, of course, but his

interest is that of an amused and tolerant spectator. Having been the object of one cult or another most of his life, he now views with serene detachment the cult of his own posterity.⁵

Evidently sensitive to that ever increasing “cult of his own posterity,” a year and a half before his death at the age of eighty-one, Duchamp consented to an extensive series of interviews. The interviewer, Cabanne, stated that the aged artist spoke to him,

with a serenity from which he never departed, and which gave his theorems an undeniable grandeur; one divined a man not only detached but “preserved.” Through his creative acts, Marcel Duchamp did not want to impose a new revolutionary language, but to propose an attitude of mind; this is why these interviews constitute an astonishing moral lesson. . . . He speaks in a calm, steady, level voice; his memory is prodigious, the words that he employs are not automatic or stale, as when one is replying for the *n*th time to an interviewer, but carefully considered. . . . Only one question provoked in him a marked reaction: near the end, when I asked whether he believed in God.⁶

Robert Motherwell, the emeritus Abstract Expressionist painter and historian of modern art, recalled:

I knew Duchamp casually, beginning in the early 1940's in New York City, in the French Surrealist milieu. Late in the decade, we met once or twice at the dusty New York studio that he had had for years (on West Fourteenth Street, I think), but more often at a little downstairs Italian restaurant, where he invariably ordered a small plate of plain spaghetti with a pat of butter and grated Parmesan cheese over it, a small glass of red wine, and espresso afterward. In those days his lunch must have cost seventy-five cents, or less. He could not have been more pleasant, more open, more generous, or more “objective,” especially when I recall how few of my questions had to do with him.

He was held in great regard by other artists, especially the usually contentious Surrealists, and, Motherwell adds, “their respect for Duchamp—who was not a Surrealist but, as he himself said, ‘borrowed’ from their world—and, above all, for his fairness as a mediator, which was great.” Motherwell concluded,

Heaven knows how many people he helped, or in how many ways. One should keep this in mind when Duchamp tells [his interviewers] that he doesn't do much during the day, or when he so often gives his reasons for having done something as that it “amused” him. It is true that he could not stand boredom. He rarely attended large gatherings, and when

he did it was barely long enough to take off his hat. . . . Duchamp's intelligence accomplished nearly everything possible within the reach of a modern artist, earning the unlimited and fully justified respect of successive small groups of admirers throughout his life.⁷

And now, with a certain ironic intention, I will again quote the recollections of the Frenchman François Jollivet-Castellot, who actually never met Marcel Duchamp (and here "Duchamp" has been substituted for "the Alchemist"):

Like every Initiate, [Duchamp] is absolutely tidy; therefore, he shall meticulously perform his ablutions before all meals, work and sleep. . . . His morning repast should be light, with the object of leaving his spirit completely at liberty to develop. Then he takes tea, with biscuits or toast. Once the toilette is completed, [Duchamp] will work straight through until the next meal. . . . The noon meal will be plentiful on those practical work-days actually spent in the laboratory, but frugal when the day's purpose is only to allow for the mental effort of composing notes; then tea or coffee are indicated as stimulants.

His work-day includes in part the collation of notes on laboratory experiments and these tasks are carried on until around six in the evening. His laboratory [or studio] should be well ventilated but, above all, darkened. At least one portion of it will remain in complete darkness. In practise certain operations are improved by being performed when protected from light. . . . These operations are always done by him with complete propriety and in perfect order. His exercises shall be conducted with method, either according to the meaning of the texts consulted or following one's personal inspiration. . . . [Duchamp] shall instigate poetic reflections and artistic sensations. . . . For these purposes, nocturnal tranquility is especially recommended. After dinner, and after consumption of tobacco, he resolutely sets about the extended work of composition, that is, should he perform as a *hermétiste écrivain*.

But [Duchamp] must not abuse either the theater or worldly pleasures, for intellectual dissipation would be the inevitable result. In every case, [Duchamp] is never to forget his role as a guardian of the Occult Tradition. He should never engage in noisy set-tos, nor stir up arguments about those articles of faith pertaining to the domain of the Profane. Nevertheless, should the occasion arise, he should then affirm his opinions and beliefs, and these he will then maintain with conviction. He shall never depart from the most exquisite politeness and the greatest possible tolerance. [Duchamp] is liberal-minded. Likewise, he continuously shows himself to be friendly and open with others—but he is always reserved in his manner. . . . At times, [Duchamp] will venture forth from his darkened laboratory and, at such times, he shall seek out female company, with whom he must also behave with decorous, even emotionally distant, restraint.⁸

Alas, like M. Jollivet-Castellot, I never met the charismatic gentleman, so “decorous, even emotionally distant,” and so adverse to “boredom.” The closest I have ever been was by means of some interviews videotaped with him in the 1960s. The impression I drew from these was very much like Cabanne’s and Motherwell’s, to which it might be added that Duchamp was absolutely fluent and articulate in English, a language which he spoke with a relaxed and very credible American accent. By that time, he was a naturalized citizen of this country, an adopted land in which his provocative ideas about art and art-making were to have a much greater impact than they ever did in his native France. From watching these interviews, now some forty years old, there was made apparent something else: the man radiated charisma. I finally began to understand the often-noted psychic effects wrought by his quiet but commanding personality, working its magic upon nearly all those who came in contact with him. This led to a further, quite essential, understanding of why Duchamp in his lifetime—and even more so posthumously—was to have so many devoted followers and acolytes.



At two o’clock in the afternoon of July 28, 1887, in the Norman town of Blainville-Crévon (Seine-Maritime), the fourth child of an archetypal French, bourgeois, Roman Catholic family was born.⁹ The boy’s father, a prosperous notary public, was Justin Isidore (*dit* Eugène) Duchamp, and his mother, Marie Caroline Lucie (*née* Nicolle).¹⁰ On July 7, 1888, he was baptized Henri Robert Marcel Duchamp. Already established rivals for his parents’ affections included a twelve year-old brother, Gaston. Years later, Gaston Duchamp would achieve some fame as an illustrator and, eventually, as a fine artist under the affected identity of “Jacques Villon,” after a notorious bohemian prototype poet of the fifteenth century. Eighteen months after the birth of Gaston-Jacques, another son joined the Duchamp household. He, too, was to become an artist, a notable modernist sculptor, and was also to adopt a professional pseudonym, thus becoming Raymond Duchamp-Villon. The family also included three sisters, one of whom died young. The closest to Marcel was Suzanne, born October 20, 1889. She would become a painter as well, and her second husband was the sculptor Jean Crotti. Marcel Duchamp was to recall many years later, “I was twelve years younger than Jacques Villon, and eleven younger than Raymond Duchamp-Villon—who had been artists for a long time, especially Villon.” By Duchamp’s reckoning, his life’s career in the fine arts was nearly a foregone conclusion: “I already had the opportunity to think about it.”¹¹

Given such a pattern of artistic pseudonymous coexistence, a detective-biographer might suspect the existence of a lively and long-standing sibling rivalry between the brothers. Perhaps this provides a clue to the

origins of Marcel's later impostures and often bizarre and theatrical behavior, even though these traits were only to reveal themselves fully once he was well into his twenties, then living far from his family. As is commonly known, Duchamp himself adopted a pseudonym later in life, that of the notorious bisexual and/or androgyne "Rose Sélavy" (see fig. 20), pronounced in French, *Eros, c'est la vie!* A rough English equivalent is "Life is sex!" or vice versa. By that time, such alter ego attributes had become completely integrated into Marcel's increasingly obscure art. What was for the older brother perhaps largely avocational convenience seems to have become an essential facet of Marcel's emerging duplicitous public persona.

The distinctions between the brothers' personalities are clearly expressed by their art. The paintings and etchings of Jacques Villon and the sculptures of Raymond Duchamp-Villon represent just the sort of early abstractionism which Marcel was later to reject as merely "retinal" art. Their imagery is visually appealing and reasonably coherent at a glance, a type of figuration in which complicated or obscure subject matter plays no significant role. Both Villon and Duchamp-Villon were true moderns in that the art of their mature years employs marked abstraction of motifs and patterned compositional arrangements. Nevertheless, in their formalized artistic imagery, both the original motif and the underlying ideas are usually easily read. The art of Marcel's mature years is, on the other hand, rarely obvious in its subject matter. Nor was it intended to be visually appealing. In both appearance and idea, Duchamp's imagery was near polar opposite of the accomplished "retinal" art produced by his older brothers.

In spite of being such a hotbed of future artistic impulse, from all outward appearances the Duchamp household was a model of bourgeois respectability and gentility. Eugène was kindly and indulgent to his children's essentially impractical artistic inclinations. In fact, Duchamp *père* faithfully contributed to the financial support of his three sons until his death early in 1925. Long before, each of the three brothers had decided to pursue careers as artists. Their father's generosity was, however, tempered by a characteristically Gallic obsession with the enduring value of a *franc*. Eugène Duchamp kept a painstaking account of everything he spent on his sons to further their artistic ambitions, and he deducted these amounts from their respective inheritances. As a result, Jacques Villon, who had received 150 francs monthly for the longest period, learned in 1925 that he was to be left without a *sou*. On the contrary, the youngest child, Madeleine, inherited a vast amount at that time since she had always lived *en famille* and so had no outside expenses; uniquely among the siblings, she also had no artistic proclivities or pretensions. These rigorously fair financial arrangements and precisionist disbursements amused Duchamp greatly; according to his later recollection, "My father did it the way a notary would. Everything was written down. And he had warned us!"¹²

While at home, the Duchamp children played chess constantly and performed chamber music together under their mother's supervision. With regard to Mme. Duchamp, what Marcel was to recall in later years was above all her placidity, a trait which often struck him as representing indifference; to him, she seemed "distant and cold." Since she overtly preferred her daughters, as one biographer asserts, "there is some evidence that she tried to turn the boy Marcel into a replacement for the little girl she had lost less than six months before his birth."¹³ At first, this wounded Marcel, but eventually her air of maternal distance and reserve was to become a psychic goal, one which he eventually incorporated into his very being. As Duchamp's first biographer, Robert Lebel, has remarked, there can be no doubt that "Marcel's family left a profound mark upon him," and particularly important for the artist's later work were those "intimate childhood conspiracies with his sister Suzanne, his favorite model in youthful drawings."¹⁴

In 1894, Raymond and Gaston obediently embarked upon university careers; the former entered the School of Medicine in Paris, and the latter went into the School of Law. Neither completed their studies, having independently decided to pursue precarious careers as artists. In 1897, a ten-year-old Marcel went to Rouen as a live-in student at the Lycée Corneille, a Jesuit foundation and the finest boarding school in the region. For more than a thousand years, Rouen has been the provincial capital of Normandy, a seacoast land named after its fierce Viking founders. It was in Rouen that Joan of Arc was burned as a heretic in 1431. Normandy is the land of the principal exponents of France's great classical tradition, among them Nicholas Poussin, Pierre Corneille, Guy de Maupassant and Gustave Flaubert, all of whom also attended the Lycée Corneille. Marcel received the kind of rigorous classical education so foreign to most contemporary artists today. The curriculum at the Lycée Corneille has been described as including "a heavy academic menu: philosophy, history, rhetoric, math, science, English, German, Latin, Greek," and his language examinations for the "Bac" included sight-reading of previously unknown texts in German, Latin, and Greek.¹⁵ As we shall soon see, Duchamp's polyglot literacy allowed him to manipulate with ease the traditional texts of esotericism and hermeticism. It was also at the Lycée Corneille that Marcel met Raymond Dumouchel, a future medical student, of whom he was to paint a most unusual spiritual portrait later in 1910 (see fig. 2).

So much for the accessible biographical data. In general, what does it mean to be brought up *à la française*? Even though the French seem not much given to cultural introspection of the more critical sort, one has published a very useful book examining the psychology of his cantankerous countrymen. Although this author, Sanche de Gramont, never mentions Marcel Duchamp, he does wryly observe that in France,

Individualism first takes the obvious form of the yeoman tradition of contesting authority, a metaphysical nihilism. . . . The essential French

freedoms are the freedoms to judge the judges, to mock institutions, to keep one's hat on when the "Marseillaise" is playing, and to dispense with God. On another level, it is an acquired reflex to think for oneself. In their homes and their education, the French are conditioned to think, and individualism becomes a Cartesian attitude of systematic doubt, intellectual curiosity, and not accepting as correct what is evidently wrong. Joseph Prudhomme's statement, "That is my opinion, and what is more, I share it," is still a valid stereotype.

Another relevant bit of broadly Gallic background is a kind of all-pervasive initiatory mentality. As further explained by de Gramont,

There are, as someone has said, no young men in France, only elderly schoolboys. Life will divide these elderly schoolboys into a group of initiates, who have always done the right thing, and a group of outcasts. . . . In every aspect of French life there is a Masonic division between the initiated and the uninitiated, from the few favored customers, for whom the restaurant owner saves his hidden store of wine, to someone who has been "recommended" and so gets special treatment in government offices. The attitude immediately changes from peevish indifference to conspiratorial warmth. Belonging is everything, the barriers of suspicion fall and one is then allowed into the magic circle, protected from a hostile world.¹⁶

A particularly Gallic pose commonly affected by those initiated into the avant-garde is that of the *flâneur*, a fellow also known by his Victorian-English designation, the dandy. This cultural model described by Charles Baudelaire in his often cited essay of 1860, "The Painter of Modern Life." Like Duchamp, Baudelaire's dandy "aspires to cold detachment [and] the dandy is blasé, or affects to be, as a matter of policy and class attitudes." Baudelaire's dandy is also characterized by "his excessive love of visible, tangible things, in their most plastic form, [and this] inspires him with a certain dislike of those things that go to make up the intangible kingdom of the metaphysician. Let us therefore reduce him to the status of the pure pictorial moralist, like La Bruyère." Baudelaire concludes, "*Dandyisme* is the last flicker of heroism in decadent ages."¹⁷

Duchamp was more than just *un français*. Brought up in Normandy, the artist was, therefore, *le provincial*, a nonhonorific title which, at least in France, automatically brings with it lumpishly derogatory connotations. As Sanche de Gramont again explains,

The provincial inferiority complex goes back to the Middle Ages. . . . The word "province" connotes all that is backward and unfashionable, a connotation enshrined by dictionaries (the 1900 Larousse defined "provincial" as *gauche* and lacking in distinction) and newspapers, which continue to gather the humdrum events outside the capital under rubric

“Province.” It has always been taken for granted that excellence in all fields is Parisian.¹⁸

Besides actually moving to the capitol, among some other *beaux gestes* readily available around 1910 was the identity of the Artist-Alchemist. This exotic figure, a dandy-magician, was decidedly anti-provincial. It was a role that quickly proved to fit Duchamp like a fashionably tailored three-piece suit from Paris. Certainly, irony is also central to Duchamp’s self-fashioned image. But just how original was this complementary pose? As Jeremy Weiss points out, after Baudelaire, parody was consistently perceived as “a sub-history of the avant-garde.” Moreover, focusing on the terms *blague* and *mystification*, Duchamp embodies the idea that “hoax, as a claim, an act and a condition suffuses the experience of modern art.” Particularly important for the cultural milieu defining Duchamp’s youth were strictly “popular” manifestations establishing what Weiss calls a “collective consciousness or sensibility of ambivalence.” Among these were the well attended music hall *revues*, “a comic system according to which French society commentated itself. . . . As a model, it comprises the entire [terminological] jumble of . . . the *actualité*; the pun, the *allusion* and the *à peu près*; the *sous entendu* and *entente*; irony, satire and *grivoiserie*; newspaper, advertising and song.”¹⁹

But there is more to life in France than irony and *dandysme*. Unlike the kind now known to would-be American vanguard artists, young Marcel’s formal education included a rampantly Cartesian curriculum. French school-children are told “Write like Descartes!” and, more importantly, “Think like Descartes!” Duchamp himself confirmed these effects of his early education: “I happen to have been born a Cartesian. The French education is based on a sequence of strict logic. You carry it with you.”²⁰ As he also added,

Whatever there is in it [“that business of my being influential”] is probably due to my Cartesian mind. I refused to accept anything, doubted everything. So, doubting everything, I had to find something that had not existed before, something I had not thought of before. Any idea that came to me, the thing would be to turn it around and try to see it with another set of senses.²¹

So exactly what is this Cartesian mind as it might seem to be broadly reflected in Marcel Duchamp’s thought and deed?²² This seventeenth-century philosopher, Duchamp’s admitted mental model, reduced the universe to a hyper-rationalized, mechanized system. The Cartesian system is hermetically closed and tautological: it establishes self-referential propositions which prove each other. In his scarcely known private life, René Descartes was himself secretive; his personal mottos (seemingly corresponding to Duchamp’s “inscriptions”) were *Larvatus prodeō*—“Masked, I advance”—and *Bene qui latuit, bene vixit*—“The good life represents a good secret.”

It does not presently matter that the results of Descartes' speculations were based on inaccurate data; what matters is that the method proved convincing. Accordingly, the Cartesian System has always been presented to French schoolchildren as a unique model of right thinking. Descartes' purposes were truly ambitious: to reveal the very order of nature; to reveal the correspondences between the ordering of the reasoning mind and the assumed order of nature; above all, to reveal rational principle and procedure—although not necessarily to describe real phenomena. As in the Esoteric Tradition, “it's all in one's mind.” Descartes' wholly hypothetical universe, in which no vacuum may exist, was assembled from largely imaginary elements: large terrestrial masses, small aerial balls, and an etherlike, “subtle liquid” which was spread through every nook and cranny of the Cartesian Macrocosm. Matter, he says, was formed from primitive Chaos due to titanic whirlwinds creating primordial condensations by their grinding rotations and mutual circulatory interactions. The Microcosm, the human body, is viewed as a kind of mechanical engine. Broadly speaking, such is the hermetic design of Duchamp's “other world” as it is revealed in the Notes for the *Large Glass* (see figs. 1, 11).

A close study of published materials, including Descartes, made obligatory reading by the French *lycée* that Marcel Duchamp attended reveals the character of some other formative intellectual influences shaping the quirky thought patterns of the mature artist.²³ Besides a heap of homework, the average *lycée* philosophy textbook of the Symbolist period offered a curious mélange: new philosophical and scientific doctrines intertwined within the context of an older, specifically Spiritualist tradition. Tied to these seemingly disparate concepts were some newer academic subjects offered for mandatory close study: *la psychologie et l'esthétique*. This universal and rigorous curriculum, therefore, actively encouraged a late Symbolist period *bachelier* student, necessarily naive, to form an eclectic reconciliation of aesthetics and psychology, or, as it turned out, positivism and spiritualism.

In discussions of aesthetics found in the old French textbooks, never is the practice of Naturalism or Realism (“retinal art”) actively encouraged; instead, arguing on the basis of psychological theory, all the assigned authors define *l'Art* as an expressive manifestation of the creative imagination and as a representation of the dematerialized, metaphysical or neo-Platonic ideal. By 1890, Idealism, as imploded into Schopenhauer's dictum, “The world is [wholly] my representation,” had clearly become *à la mode*, even at the caricaturing level of secondary education. According to Théodule Ribot, in his *Philosophie de Schopenhauer* (1885), the message of the German philosopher was to explain emphatically that the world of the senses was only a mental construct, and that Matter is itself a huge lie, a mendacious misrepresentation. The only dependable source of knowledge is “our will, and, accordingly, we must seek to comprehend the intimate workings of Nature through and

by ourselves, and most assuredly not through or by Nature itself."²⁴ In short, again, "it's all in our minds."

French students were, and still are, taught to formulate solutions to any problem in terms of a *thesis*, its opposing *antithesis* and, finally, the *synthesis* imposed between the two polarities. The synthetic approach, which the precociously abstract Symbolist artists had evidently learned so obediently, made them, likewise, define art itself as a synthesis, an experience reconciled between the thesis, external and objective reality, and its antithesis, internal and wholly subjective metareality. One's obligatory, state-sponsored education naturally made one think along the lines of a universal *coniunctio oppositorum*. In contemporary terms, this synthetic principle was called the "associationist theory," which stated that one idea inexorably evokes another if a relationship of similarity, contiguity, or even contrast exists between the two. As was explained in the fin de siècle textbooks, contemporary philosophers and psychologists throughout Europe sought to establish association as the fundamental mechanism involved in all mental operations. One such assigned text was A. Mellier's *Leçons de philosophie* (1885), which announced:

Just like memory, the imagination is dominated by the law of the association of ideas. Without association, the work of the imagination becomes impossible. . . . Art is the representation, placed in support of sense-perceived signs, of concepts of beauty conceived by our *esprit*. . . . Nonetheless, whatever its nature or sources, the sign is the necessary instrument of every artistic manifestation, and this instrument only fulfills its role once it becomes put into the service of the *esprit*.²⁵

But one does not only read what has been assigned in high school. Which writers of the *belles lettres* sort did Duchamp actually say he had read with some interest? Precious few; there is, for instance, no mention made of Henri Bergson, an author credited by some art historians as having made a signal contribution to the evolving modernist *mentalité*. Besides Jules Laforgue, Duchamp also mentioned three other poets to his liking: Lautréamont, Arthur Rimbaud, and Stéphane Mallarmé, all of whom were notably Symbolist. The first two were, however, dismissed by this artist as being dated: "trop vieux à l'époque." On the other hand, like Laforgue, Mallarmé was cited as conforming to his taste, "plus près de mon goût."²⁶ As for Mallarmé, the attraction was evidently wholly "auditory"; as Duchamp told Pierre Cabanne, this poet seemed "simpler than Rimbaud," but "since I still cannot completely understand him, I find him very pleasurable to read for sound—*de la poésie audible*."²⁷ Therefore, taking Duchamp at his word, none of these poets interested him for the often hermetic, even clearly alchemical content of their works, a denial that seems unlikely.

Another author of whom Duchamp spoke with great approval was the playwright Raymond Roussel. Of him, Duchamp said that "he believed him-

self a philologist, a philosopher and a *métaphysicien*.” Still, for all that, he remained a great poet, “il reste un grand poète.”²⁸ It was one piece in particular by Roussel that struck Marcel, his madcap play *Impressions d’Afrique* (1910). However, as he told Cabanne, “I don’t remember much of the text. One did not really listen; it was [mainly visually] striking,” because “on the stage there was a dummy and a snake that moved slightly: it was absolutely the madness of the unexpected.”²⁹ Since the complete text of the original version of Roussel’s play was never published,³⁰ we only have recourse to some contemporary accounts for our fragmentary knowledge of its contents and its striking *mise-en-scène*. As best as we can tell, it incorporated what were later to become typically Duchampian themes, sexuality and bizarre mechanical effects. Nonetheless, the current opinion is that no real influence resulted: “Roussel n’a pas inspiré Duchamp.”³¹ This seems likely, and contradicts an unlikely statement made by the artist in 1946, affirming that “it was Roussel who basically was responsible for the idea of my *Large Glass*.”³² Nevertheless, Duchamp also remarked to Cabanne that he was particularly indebted to Roussel for demonstrating in practice “anti-sense.” According to Duchamp,

Titles in general interested me a lot; at that time, I was becoming literary—*je devenais littéraire à ce moment-là*. . . . Roussel gave me the idea that I, too, could try something in the sense of *anti-sens*. . . . In a booklet, he tells how, starting with a sentence, he made a word game with kinds of parentheses. . . . His word-play had a hidden meaning, but not in the sense belonging to Mallarmé or Rimbaud. It was an obscurity of another order.³³

Besides Roussel, it was Jean-Pierre Brisset who, stated Duchamp in 1946, “que j’admirais les plus en ces années pour leur imagination délirant.” Other than providing an impetus for “a frenzied or ecstatic imagination,” what did this author actually discuss in his publications? According to Duchamp, “the works of Brisset represented a philological analysis of language, an analysis carried out through an incredible interweaving of puns.”³⁴ This is not much to go on, but it does fit in with the patterns of linguistic analysis we have seen to have been instituted by the *lycée* curriculum of Duchamp’s youth. Among Brisset’s principal works were *La Science de Dieu, ou La Création de l’homme* (1900), *Les Prophéties accomplies* (1906) and *Les origines humaines* (1913), in which he propounded a theory that similar sounding words in different languages stand for the same things. Thus, from a passing observation about the similarity of the French words *sexe* and *qu’est-ce que c’est que ça*, meaning roughly “sex” and “what’s that there,” but sounding alike in French, Brisset deduced the quality of thoughts of primitive man as he was first becoming aware of his sex drive. In short, what we have here is more anarchy, *anti-sens*, in the actual application of a sort of pataphysical linguistics.

Another author, this time one who was literally pataphysical or rampantly pseudo scientific, and who was stated to have been favored by Duchamp at this crucial moment in his development, was Alfred-Henri Jarry (1873–1907). He probably served Duchamp as a role model, that of an intellectual child prodigy of the more negative or irresponsible sort. As portrayed later in the popular press, Jarry was a model *enfant terrible*; as he was described by a former classmate, Henri Hertz, Jarry

had a reputation which, in family circles and among professors, provoked sudden silences and obvious embarrassment. He was a brilliant student, but with all the marks of a troublemaker. . . . He delighted in attacks on our modesty. He loved to see our cheeks redden with shame and envy. Since he was already way ahead of the rest of us in his impatient maturity, we knew that everything which he had in common with us took on another meaning for him.³⁵

Jarry's dubious place in literary history is largely due to an anarchic and caricaturing play, *Ubu Roi*. Produced and published late in 1896, the play immediately made him famous at the age of twenty-three. Duchamp certainly knew, and valued, this largely infantile work; in 1935, he created an elaborate book binding for his personal copy.³⁶ When *Ubu Roi* was staged in Paris, there was some debate as to whether this rebellious and school boyish work was really a *grand pièce*, comparable to the best of Shakespeare or Rabelais, or just trash. William Butler Yeats attended the première performance, and wrote that "the players are supposed to be dolls, toys, marionettes, and now they are all hopping like wooden frogs. The chief personage, who is some kind of a king, carries for a scepter a brush of the kind we used to clean a closet [toilet]."³⁷ The very first word uttered by this unregal figure, a monarch of the WC, is *Merdre!*—"Shee-yitttt!" At the première, the word provoked fifteen minutes of unbroken pandemonium, shocking awake those put to sleep by Jarry's rambling and monotonal opening speech. Nonetheless, the *beau geste* of a youthful *littérateur-anarchiste* seemed to fit the spirit of the times. As a literary critic acutely noted in the December 12, 1896, issue of *Le Journal*,

In spite of the idiotic action and mediocre structure [of the play], a new type man has emerged, created by an extravagant and brutal imagination, more like a child's than a man's. Père Ubu exists, compounded of Punch and Judy, of the Catholic Torquemada and the Jew Deutz, of a Sûreté policeman and the anarchist Vaillant. . . . He will become a popular legend of base instincts, rapacious and violent; and M. Jarry, whom I hope is destined for a more worthy celebrity, will have created an infamous mask.³⁸

In 1902 Jarry published his *Le Surmâle* ("Superman"), in which amorous machinery plays a central part. The climax of this nihilistic, science fiction-like novel is a love scene in which the hero and heroine sexually join

together no less than eighty-two times in a few hours. Alas, the hardy participants in this incredible feat of erotic endurance do not achieve any kind of *grand frisson*, for they deliberately withdraw once they recognize that they are approaching the moment of climax. This reiterated *coitus interruptus* sequence is preceded by another scene in which the macho hero enacts a symbolic rape on a weight-lifting machine, typically given female attributes by Jarry. In turn, the sexual superman meets his own death through an inopportune encounter with a love-making machine. Obviously, here we have a modernist literary precedent for Duchamp's aggressively eroticized mechanomorphic imagery in the *Large Glass* (figs. 1, 11). Much more to the point of Duchamp's practices, specifically his concoction of a droll physics, *la physique amusante*, was Jarry's much discussed pseudoscience, one he called "Pataphysics." The emerging system was initially elaborated in 1896, and finally published posthumously, in 1911, in the *Gestes et opinions du docteur Faustroll*. As explained by Jarry, "Pataphysics is the science of the realm beyond metaphysics. . . . Definition: Pataphysics is the science of imaginary solutions, one which symbolically attributes properties of objects, as described by their virtuality, to their lineaments."³⁹

Jarry, about whom everyone operating in the Parisian avant-garde must have surely heard, seems the most fitting model for Duchamp's ironic and even sardonic approach to esoteric pseudoscience. Like so many of his contemporaries, Jarry was at the very least a dabbler in the Occult. Due to his general allegiance to the Esoteric Tradition, Jarry was naturally determined to undermine confidence in all kinds of materialist science based strictly upon sense perception. However, also like most of his contemporaries, Jarry was vitally interested in the rapidly unfolding adventures of contemporary science, even though he simultaneously opposed positivism (materialism) and everything for which it stood. Pataphysics, specifically designed in the commonplace modernist-esotericist pattern of a pseudoscience, employed just enough of the new science and the new mathematics to produce a powerful attack on positivism; so doing, it paralleled Jarry's blasphemous overthrow of the verbal conventions of contemporary bourgeois society in his scatological *Ubu Roi*.

Like Pataphysics, Duchamp's *Large Glass* (figs. 1, 11) conforms to what Jarry described as a "science of imaginary solutions, one which symbolically attributes properties of objects, as described by their virtuality, to their lineaments." Nevertheless, the particular pseudoscience actually employed by Duchamp—*l'Alchimie*—had been around long before Alfred Jarry opportunely invented *la Pataphysique*. Duchamp's mild allegiance to a Jarrylike, antipositivistic pseudoscience is documented. As he explained to Pierre Cabanne in 1966,

Beginning with Impressionism, all painting has become anti-scientific; even Seurat was [anti-scientific]. What interested me was introducing the precise and exact aspects of [modern] science, which had not often

been done [by an artist], or at least had not been talked about [by artists] very much. It was not for the love of science [as Science] that I did this. On the contrary, it was rather in order to discredit it, in a manner that was mild, gentle, unimportant. But irony was present.⁴⁰

More importantly, as he confided in his Note 35, his real *modus operandi* was devoted to instigating a new reality based on an anarchic system of “playful physics” which was to be created “by slightly distending the laws of physics and chemistry.” That, as told in different terms than by Jarry, namely by Albert Poisson and Antoine-Joseph Pernety, was exactly what *l’Alchimie* had already done.

This is Duchamp’s cultural *mise-en-scène*. How did our budding artist maneuver among these mental markers? At the age of eleven, in 1898, Marcel Duchamp took Holy Communion in the parochial church in Blainville-Crévon. At the same time, Jacques Villon took his secular vows as a beginning freelance artist-illustrator, moving to Montmartre, then the shabby but rather glamorous bohemian quarter of Paris. In 1900, besides studying languages and chemistry, Marcel took second-class honors in mathematics at the Lycée Corneille and, in 1902, even took first-class honors in this daunting subject. In the same year, his brother Raymond, now called Duchamp-Villon, had a sculpture accepted in the annual Salon des Beaux-Arts. Immediately following his brother’s first public success, Marcel began to paint (e.g., MD-4: *Paysage à Blainville*, 1902). These earliest paintings are local landscapes, executed in an Impressionist style that had by then become popularly accepted, even in provincial Rouen. By 1903, the budding teen-aged *artiste* had passed the first part of his *baccalauréat* exams at the Lycée Corneille, carrying off the school’s first prize in drawing, and the next year he successfully completed the literature and philosophy examinations, additionally earning a prize for excellence given out by the Rouen “Amis des Arts.” Now, aged seventeen, he asked his father to send him to Paris.

The notary graciously acceded, and Marcel moved into Gaston-Jacques’s typically bohemian, ramshackle Montmartre studio on the rue Caulaincourt, no. 7. During these last, flush years of the *Belle Époque*, Montmartre was practically a part of the countryside. Above rue Caulaincourt, Montmartre was only built up towards the south; toward the city the hillside was sparsely covered with the tumbledown shacks of the down-and-out. Alcohol was the principal escape for the human jetsam of Montmartre, which at that time was mainly a poverty-stricken quarter, not yet the chic Mecca of Bohemianism which it would shortly become. Dance halls, cabarets, and other pleasure spots of ill-repute hid behind crumbling facades of the steep and irregular streets leading up to the old village, on top of which was the massive, recently completed, neo-Byzantine “wedding cake” known as the Sacred Heart. Rutted alleys angled down between old buildings, and in spring bright flowers

sprouted in untrimmed hedges. In the bluish haze to the south and west, through gaps between the wild greenery and the moldering buildings, one could catch glimpses of central Paris and the wrought-iron spire of the Eiffel Tower, the new, secular, modernist, architectonic symbol of the cosmopolitan European metropolis.

Even though he had previously enrolled at the Académie Julian, a private art school in April 1905, Marcel Duchamp failed the entrance exams for the *École des Beaux-Arts*. Marcel's failure at academic art was largely self-induced. As he recalled in 1966,

I only spent one year at Julian. What did I do? I played billiards in the morning, instead of going to the studio! Nevertheless, I once tried entering the *École des Beaux-Arts* competition, which was a "flop," as you say in English. The first test was to do a nude in charcoal—I flunked. . . . Then I resumed cartooning and the art lessons at the Julian. I got ten francs for a quarter-page in *Le Sourire* and *Le Courrier Français*, which was going great guns at the time. Villon got me in.⁴¹

Undaunted by his failure to get into an accredited professional art school, Marcel began an apprenticeship in a commercial print shop, *L'Imprimerie de la Vicomté*, and earned the diploma of an *ouvrier d'art*, by which means he was to secure a two-year exemption from the usual obligatory three-year stint of military service. In October 1905, he had enlisted as a reserve infantryman, and in April 1906 was promoted to corporal; he was discharged in October of the same year. Years later, Duchamp admitted,

Expecting to serve under the law two years [more] of military service, I felt, being neither militaristic nor soldierly, that I must still try to profit from the "three-year" law; that is, do only one year by signing up immediately. So I went through the steps necessary to find out what one could do, without being a lawyer or a doctor, since these were the usual exemptions. That's how I learned there was an examination for "art workers," which allowed one year's service instead of three. . . . I discovered that one could be a typographer or a printer of engravings. . . . So I was exempted from two years in the service. . . . Then I was discharged. So I became completely exempt from further military service.⁴²

This carefully engineered exemption was to prove most useful eight years later, when World War I broke out. The initial step of Marcel Duchamp's professional entrance into the visual arts was, at least to a degree, something like a draft-dodging scheme; it was also, perhaps significantly, marked by a failure to enter by the conventional academic path.

Like Jacques Villon, Marcel Duchamp began work as a comic illustrator for Parisian journals. An attractive example of his gently ironic newspaper

illustrations is the 1907 drawing of the *Femme-Cocher* (MD-19), with a meter ticking away on an passengerless cab standing before a cheap hotel. The suggestion is that the lady hack driver and her male client have entered into the establishment to experience other kinds of transports, the kind involving *coucher* (bedding vs. coaching). Beginning in 1908, Duchamp began to exhibit as an easel painter, revealing an increasingly modernist style. So did many other novice artists on the fringes of the Parisian art scene. Now becoming artistically ambitious, Duchamp's works appeared in anti-academic annual exhibitions staged at the Salon d'Automme each year between 1908 and 1912, and he exhibited at the Salon des Indépendents from 1909 to 1912.

But any further participation by Duchamp in French exhibits ceased early in 1913. In that year, his work appeared—with much fanfare—on the other side of the Atlantic, in the famous Armory Show mounted in New York from February to March of 1913. Duchamp left France early in the summer of 1915, taking up a more or less permanent residence in America, where he immediately gained the kind of critical notoriety that stubbornly eluded him in Paris. In part, this important exodus was due partly to an invitation extended to Duchamp by an American painter, Walter Pach, and partly, at the very beginning of World War I, to an understandable desire to avoid being called once again to the French colors. In those months, it was obvious that uniformed males led violent and short lives.⁴³

Duchamp's decision to take no further part in Parisian exhibitions had, however, been reached well before his American involvements. His refusal was prompted by an insult, the sting of which he was to remember with some bitterness to the end of his long life. Marcel had intended to put on display his *Nude Descending a Staircase* (MD-64) at the Salon des Indépendents exhibit, scheduled to open in March 1912. This was the same painting that was to create such a scandal at the Armory Show in New York the next year.⁴⁴

Unfortunately for Duchamp's pluckily descending nude, the hanging committee of the Salon—including Archipenko, Léger, Le Fauconnier, Gleizes, and Metzinger (the last two then completing a soon-to-be published manuscript called *Du Cubisme*)—expressed great indignation when they saw the title inscribed on Marcel's canvas, *Nu descendant un escalier*. This title collectively struck these dedicated art pioneers as representing an affront to pure Cubism. The committee formed a solid front, and they sent Marcel's brothers to his studio to demand a change of title from him. Duchamp refused angrily—and immediately withdrew his wrongfully inscribed painting from the Cubist exhibition. The incident was decisive, he later recalled, in reorienting his artistic career, calling for “a complete revision” of his position, including a “thorough liberation” from his immediate past.⁴⁵

In retrospect, this precipitous action appears a manifestation of youthful pique and the precocious sign of both liberation from the common milieu and a new fascination with scholarly endeavor. Henceforth, typically oblique

verbal inscriptions were as important as was Duchamp's likewise oblique pictorial figuration. Still embittered years later, Marcel recalled how "people, like Gleizes, who were, nevertheless, extremely intelligent, found that the 'Nude' wasn't in the line that they had predicted." As Duchamp chose not to mention to Cabanne, but as is confirmed in Gleizes and Metzinger's *Du cubisme* (1912), "intelligent people like Gleizes" had just then specifically condemned painters—like Duchamp—who chose to "fabricate puzzles," and whose imagery resorted to "fanciful occultism" and "cabalistic signs." They rejected all such "systematic obscurity" as nothing more than a "a curtain hiding a void." As Duchamp later continued to complain to Cabanne,

So that cooled me off, so much so that, as a reaction against such behavior coming from artists whom I had believed to be free, I got a job. I became a librarian at the Sainte-Geneviève Library in Paris. I made this gesture to rid myself of a certain milieu, a certain attitude, to have a clear conscience, but also to make a living. I was twenty-five.⁴⁶

As I now argue, Duchamp's activities in the Bibliothèque Ste. Geneviève entailed far more than merely "making a living." Viewed some four-score years later, it seems that he was conducting researches into some of the more esoteric kinds of literature contained in this particular library (see works marked with # in the bibliography).⁴⁷

The fruits of these obscure investigative endeavors, what Gleizes labeled "systematic obscurity" derived from "fanciful occultism" and "cabalistic signs," were eventually to culminate in the bizarre and hermetically sealed content of the *Large Glass* (1915–23) (fig. 1). Acknowledged a central work in the global history of twentieth-century art, physical execution of this epic masterpiece was only to begin directly after Duchamp's arrival upon welcoming American shores. But this piece too was a product of France before the outbreak of World War I. Earlier, in either late May or early June 1912, Duchamp had attended a performance of a then notorious play by Raymond Roussel, *Les Impressions d'Afrique*, being performed in the Théâtre Antoine. He was accompanied by Francis Picabia, a Cuban-born painter eight years Duchamp's senior whom he had met in October 1910. Duchamp was later to describe the Cuban artist as being one of his closest friends, "a teammate, so to speak."⁴⁸ His other theater companion on this apparently fateful evening was Guillaume Apollinaire, foremost among the avant-garde writers of the moment. Duchamp and Apollinaire were later to remember how fascinated they had been by Roussel's vividly ironic treatment of machinery whose operations depended on magic, including the fantastic "Wind-Clock of the Land of Cockaigne" and "M. Bex's Thermo-Mechanical Orchestra."⁴⁹

Later in June, Marcel departed for Munich. One biographer states that future scholars should "attempt to discover the reasons for this mysterious and sudden departure on a trip which was to last nearly four months."⁵⁰ At

this time Munich was mostly known in Parisian art circles as the home of the Blue Rider group of painters. Founded by Wassily Kandinsky and Franz Marc, the activities of the *Blaue Reiter* in Munich were regularly reported in the Paris papers by Henri Le Fauconnier. On this lengthy trip Duchamp also visited Vienna, Prague, Berlin, and Dresden. Although largely overlooked by recent scholarship, Munich was then also widely known for its occultist network.⁵¹ To most scholars, this itinerary suggests that Marcel, the budding modernist artist, wished to acquaint himself with the various activities of the major schools of German and Austrian Expressionism, for each of those cities he visited had its own distinctive mode of *Expressionismus*. This itinerary was probably also related to Duchamp's burgeoning interest in a decidedly mystical art, which Kandinsky's *Expressionismus* certainly was, but this is a subject—like Munich's occultist network—largely overlooked (if not actively disparaged) in the plentiful literature on Duchamp.

Even though Duchamp did not ever admit to an attraction to spiritual and mystical forms of artistic expression, that attraction may now nevertheless be taken as present. There is the fact of his recently recovered copy of Kandinsky's *Über das Geistige in der Kunst*, purchased by Duchamp in Munich (probably early in August 1912) and completely covered with handwritten marginalia. Unfortunately, this is one of the very few books that can be proven to have been actually owned by Duchamp before his departure from France in 1915.⁵² Although this singular discovery has led some scholars to suppose that Duchamp was taking pains to prepare a French translation, one is at least assured that he was motivated, for one or another reason, to read Kandinsky's book in its original German. Since Kandinsky's *Spiritual in Art* should be well known to students of art history, the reader need only be reminded of certain key passages in which the émigré Russian author-artist emphatically stressed the purely spiritual, occultist basis of truly modern or dematerialized art. According to Kandinsky, this form of expression appeared in an age in which

the nightmare of materialism, which has turned the life of the universe into an evil, useless game, is not yet past. . . . After the period of materialist effort, which held the soul in check until it was shaken off as evil, the soul is emerging, purged by trials and sufferings. . . . The spiritual life, to which art belongs and of which she is one of the mightiest elements, is a complicated, but definite and easily definable movement, forwards and upwards.⁵³

In fact, Kandinsky generously credited his spiritual reeducation to the foremost occultist leader of the fin de siècle, Helena Petrovna Blavatsky. As Kandinsky earnestly explained,

Mme. Blavatsky was the first person, after a life of many years in India, to see a connection between these [Oriental] "savages" and our [Euro-

pean] “civilization.” From that moment, there began a tremendous spiritual movement, which today includes a large number of people and has even assumed a material form in the Theosophical Society. This society consists of groups who seek to approach the problem of the Spirit by way of the inner knowledge. . . . Theosophy, according to Blavatsky, is synonymous with eternal truth.⁵⁴

Like most contemporary Theosophists, Kandinsky believed that

Literature, music and art are the first and most sensitive spheres in which this spiritual revolution makes itself felt[:] they turn away from the soulless life of the present, towards those substances and ideas which give free scope to the non-material strivings of the soul. . . . In each manifestation is the seed of a striving towards the abstract, the non-material. Consciously or unconsciously, [modern spiritualist artists] are obeying Socrates’ command—Know thyself.⁵⁵

As a painter, speaking to other painters (like Duchamp), Kandinsky was naturally quite explicit in suggesting the preferred compositional means of pictorially attaining “the non-material strivings of the soul.” Often Kandinsky’s artistic-spiritual prescriptions are specific:

Any attempt to free painting from this material limitation, together with the striving after a new form of composition, must concern itself first of all with the destruction of this theory of one single surface. . . . In order to create an ideal plane, the thinness or thickness of a line, the placing of the form on the surface, the overlaying of one form to another, may be quoted as examples of artistic means that may be employed. Similar possibilities are offered by color which, when rightly used, can advance or retreat, and can *make of the picture a living thing*.⁵⁶

The lucky recovery of Duchamp’s personal copy of the Kandinsky’s *Über das Geistige in der Kunst* provides tangible evidence for his interest in this kind of a decidedly un-Cubist, at once emotionalized and mystical, approach to abstract figuration. Thus logically follows the suggestion that Duchamp’s first abstract paintings—begun about this time, 1911 to 1912—might have primarily responded to Kandinsky’s eloquent call for a nonmaterialist, vitalist, spiritual mode of modernist figuration.

During his absence in the Germanic countries, an exhibition by the Section d’Or group in Paris had been set for October, and it appears that Marcel Duchamp specifically returned to France in order to take part. While that conclusion is debatable, it is certain that soon after his return to Paris he took up once again his research activities in the Bibliothèque Ste. Geneviève. As shown by Jean Clair, Duchamp studied in this well stocked library a number of curious old books.⁵⁷ Just how curious some of these titles

are has been confirmed by my own research there (see works marked with a # in the bibliography). During this period, Marcel also met three American artists—Arthur Davis, Walter Kuhn, and Walter Pach—who had come together to Paris to obtain works of art for an ambitious international exhibition of modern art to be mounted in New York.

Duchamp was one of those lucky individuals invited to participate in what would become known as the Armory Show. It was there that he was to gain his greatest commercial artistic success to date, selling three paintings, including the *Nude Descending a Staircase*. It was in America that Duchamp got his first professional success, with a sheaf of greenbacks to show for it, and evidently also a certain measure of vindication for the slights he felt he suffered in Paris. Duchamp did not go immediately to New York at this time, but instead remained in Paris, where he was evidently immersed in his perusal of the contents of the Bibliothèque Ste. Geneviève. The major independent artworks of Duchamp's last months of residence in France include two ready-mades—a rotating bicycle wheel, inverted and mounted upon an ordinary stool and a cheaply reproduced snowscape decorated with one red and one green dot called *Pharmacie* (MD-87, MD-88; both are contextually analyzed later in chapter 6)—and also two works dealing with specific motifs later to reappear in the *Large Glass—Three Standard Stoppages* and the curious *Water-Mill in Neighboring Metals* (MD-94, MD-101; both are contextually analyzed in chapters 5 and 7).

Although at the time apparently unexpected or without precedent, the conception of the *Large Glass* (figs. 1, 11) had actually been prepared for by the artist's gradual philosophical evolution and by his assimilation—and subsequent rejection—of the artistic fashions of his youth. As Duchamp later stated, “my discovery of Matisse in 1906 or 1907 was an important event in my life. In artistic circles, talk revolved around Manet. He was the master. It wasn't the Impressionists, a Cézanne, or Van Gogh. Nobody had heard of Seurat. At that time, a lot of people regarded Cézanne as a flash in the pan.”⁵⁸ Nevertheless, by 1910, it becomes apparent that Marcel Duchamp had actually arrived at a kind of stylistic synthesis between Matisse and Cézanne, as shown by a portrait of his father painted in this year (MD-32). This stylistic rapprochement was, nonetheless, of brief duration. Duchamp's rapid acceptance of a nearly totally abstract figuration by the following year is revealed by two closely related portraits of his sister Yvonne (MD-29, MD-43). The first dates from 1909, and the second from 1911. It is clear that the second rendering of Yvonne Duchamp by Marcel is a highly abstracted copy of the first version, which was quite naturalistic.⁵⁹ Besides the element of overall formal “decomposition” (Duchamp's term), the most significant addition to the second portrait of Yvonne is what we might call a “body-aura,” a motif made more obvious in two other figure studies dating from both 1910 and 1911 (see fig. 2, and MD-42: *Le Buisson*; both are contextually analyzed in chapter 4).

This radical shift in style—and content as well—may be accounted for in various ways. First, there was Duchamp's friendship with Picabia, struck up late in 1910. Then, there was the influence of a number of Cubist paintings that were being exhibited regularly at the Salon des Indépendents since early 1911. Additionally, there was the example of Braque's canvases, then usually on display at Daniel Kahnweiler's gallery. Marcel also participated in the famous Sunday discussion groups at Puteaux, where his brothers Gaston and Raymond had been in residence since 1906. At Puteaux in 1911, au courant topics for budding avant-garde artists included Futurist-derived art theory, the Pythagorean "Golden Number," non-Euclidean geometry, chrono-photography, and especially the mysterious *quatrième dimension*,⁶⁰ all of which were subjects of heated discussions. Recent scholarship has, moreover, assigned to the Puteaux curriculum a distinctly occultist bias.⁶¹ As Duchamp later commented on the last of these topics, "the fourth dimension became a thing you talked about, without knowing what it meant."⁶² In the larger view, rather than being strictly visual or stylistic concerns, these controversial subjects are all essentially theoretical, even literally esoteric, metaphysical issues (see chapter 7 for further analysis of the *la quatrième dimension* as an esoteric artifact).

Perhaps the most important influence marking this new direction in Duchamp's art is the man Linda Henderson describes as Duchamp's "artistic mentor: the Czech painter Frantisek Kupka, a practicing spiritualist medium and Theosophist." Kupka (1871–1957), sixteen years older than Duchamp, was a close friend of his older brothers; around 1906 all three had moved to neighboring studios in Puteaux. "As a Theosophist," Henderson adds, "Kupka would have known Besant and Leadbeater's publications," particularly those dealing with esoteric "Thought-Forms" (and which are discussed here in chapter 4), and such occultist literature supported Kupka's "interest in 'higher dimensions,' and his belief in a complex, vital reality hidden beneath the surface of reality." The Czech painter, a notable pioneer of non-objective figuration in Paris, would have provided a major "source of such spiritualist and occult views at Puteaux," specifically the Theosophical kind (further discussed in chapter 7); as Henderson further observes, "indeed, the theme of vibratory communication was as central to the evolution of Kandinsky's [*gegenstandlose*] painting style as it was to Kupka's." Henderson concludes that from Kupka "Duchamp would have encountered the idea of molecular vibrations as a means of transmitting visual images," among other sorts of contemporary "occult theories of telepathic projection."⁶³ This personal contact with Kupka provides physical evidence—and a concrete source—for a new, patently occultist motivation in the content of Duchamp's art, discernible since 1910.

Recondite theory of this sort had first been introduced into the closed circles of the Parisian art world well before any comparable Cubist theory

appeared in written form. That kind of extended verbalization had to await the appearance of Gleizes and Metzinger's *Du Cubisme*, published late in 1912.⁶⁴ This outburst of theory championing abstraction, so common by 1912, had a role model in the violently apocalyptic "Futurist Manifesto" that had first appeared on the front page of *Le Figaro* on February 20, 1909. The authors of Futurist doctrines stridently announced:

We wish to exalt the aggressive movement, the feverish insomnia, running, the perilous leap, the cuff, the blow. . . . The world has been enriched with a new form of beauty, the beauty of speed. . . . The poet must augment the fervor of the primordial elements. There is no more beauty except in struggle, no masterpiece without the stamp of aggressiveness. Poetry should be a violent assault against unknown forces. . . . Time and Space died yesterday. We already live in the Absolute. . . . We will glorify war—the only true hygiene of the world—militarism, patriotism, the destructive gesture of the anarchist, the beautiful ideas which kill.⁶⁵

Besides aggressive *machismo*, recent scholarship also assigns patent occultist affinities (and sources) to such Futurist rant.⁶⁶ Less than a year later, in April 1910, the Futurists issued a "Technical Manifesto," probably of greater use to artists since, to some degree, it explained the possible visible means of expression for this apocalyptic art of the future, an art of flux and quick transience, involving nothing less than a drastic "program for the renovation of painting." That artistic program, like so much of the contemporary avant-garde elsewhere, sought to make visible the "invisible" (or *occulta*) "forces" of nature. The overriding purpose, according to the text of the "Technical Manifesto," is

no longer to be a fixed moment in universal dynamism. It shall be the dynamic sensation itself, made eternal. Indeed, all things *move*, all things run, all things are rapidly changing. A profile is never motionless before our eyes, but it constantly appears and disappears. On account of the persistency of an image upon the retina, moving objects constantly multiply themselves; their form changes like rapid vibrations in their mad career.⁶⁷

The "Manifesto" of the Futurists strikes a pose rather like that adopted by Kandinsky at the same moment, when he, too, was speaking of a latent *geistige* or Spiritualist element in modern art. But this dynamic and renovatory attitude was not unique to European cultural expression; something similar was being stated at about the same time in America. The common denominator between one continent and the other for such advanced thought is called "radicalism." For instance, in the summer 1912 issue of the left-wing American periodical, *The Masses*, John Reed (who in 1919 became the eye-

witness author of *Ten Days That Shook the World* during the Bolshevik Revolution) proclaimed that, “the broad purpose of *The Masses* is a social one; to everlastingly attack old systems, old morals, old prejudices—the whole weight of outworn thought that dead men have settled upon us. . . . We intend to be arrogant, impertinent, in bad taste. . . .”⁶⁸ And all this was commonly said in New York some four years before similar claims were made by the Dada artists first gathered in neutral Zurich in 1916.

Another important emotional component in the era just before the outbreak of the Great War was enthusiasm. Wallace Stegner recalled the political enthusiasms of his youth, in this case as focused upon the IWW (“Wobblies”), as having the qualities associated with “*a militant church* . . . a church which enlisted all the enthusiasm, idealism, rebelliousness, devotion, and selfless zeal of thousands of mainly young men.”⁶⁹ Even though the common point of departure for the radicalized European visionaries was more typically art, Marinetti and Kandinsky evidently arrived at their points of view independently. Whether the spokesman is Russian, Italian, German, or even American, the underlying message is always the same: a radically new vision. Besides being self-consciously modern, the artistic revolution implies a *politicized* modernism that represents sweeping social, even psychological revolution.⁷⁰ The greater majority of these fervent avant-garde spokesmen, explicitly or implicitly, saw themselves as newly energized members of an international and secular “militant church.”

The artistic writ then proclaimed to the gaped-mouth mob is also functionally very much like that high-minded spiritual mission that had been espoused by most modernist Occultists since Éliphas Lévi. Whether the particular spokesman is an Artist or an Occultist, they all proclaim that the “real” Universe lies beyond “ordinary” perception, and that only the clairvoyant modern painter can penetrate deceptive surface appearances in order to perceive the superior reality of an invisible, occult vitalism that lurks beneath. In the way that the perennial Gnostic Wisdom was stated by the Futurists in 1910,

What was the truth for the painters of yesterday is but a falsehood today. We declare, for instance, that a portrait must not be like the sitter. . . . To paint a human figure, you must not paint it, you must render the whole of its surrounding [aura-like] atmosphere. Space no longer exists. . . . Who can still believe in the opacity of bodies, since our sharpened and multiplied sensitiveness has already penetrated the obscure manifestations of the medium? Why should we forget in our creations the doubled power of our sight, capable of giving results analogous to those of the X-rays?⁷¹

To these advance-guard artists of 1910, it is clear that people and things are perceived to be, according to the Futurists’ “Manifesto,” “like persistent symbols of universal vibration.” To arrive at this comprehensive

new vision, which simply represents an x-ray aided, modernist revival of the old animist universe of esoteric Ancient Wisdom, the modern painter must turn against the anachronistic art of the dead past. To do so, he must cultivate new hallucinatory visions, and must additionally, like a monk, purge his spirit:

The construction of pictures has hitherto been foolishly traditional. Painters have shown us the objects and the people placed before us; we shall henceforward put the spectator within the center of the picture. . . . In order to conceive and understand the novel beauties of a Futurist picture, the soul must be purified, become again pure. The eye must be freed from its veil of atavism and culture Your eyes, accustomed to semi-darkness, will soon open to more radiant visions of light.⁷²

Stressing the need to paint certain “states of mind (*stati d'animo*),” uniquely perceived by a modernist clairvoyant artist, and to depict those wholly invisible “force-lines (*linee della forza*)” stirring the vitalist universe so beloved of the Occultists, the apocalyptic Futurist message concludes (with italic emphasis), “We have proclaimed ourselves to be *the primitives of a completely renovated sensitiveness.*”⁷³

Call it “Futurist” or “Cubist” or “Expressionist,” the essential point is that, for the first time in the history of art, and as directly inspired by *divulgations* of the new scientific revelations, the painter has begun to view himself as a kind of metaphysical physicist, a *médium*, so sensitively endowed as to perceive a new cosmic consciousness. This clairvoyant sensitive is one whose vision uniquely penetrates through the deceptive sense-world in order to drastically reshape its once familiar visual configurations; he does so on the basis of his uniquely privileged, visionary grasp of that which lies beyond ordinary sense perception and experience. In this way, the clairvoyant vision of the prophetic modernist artist arrives at a superior, absolute Truth lying beyond deceitful surface appearances. This Truth of course lies quite beyond the conceptual grasp of the uninitiated, for they must remain *sans le savoir*, without superior knowledge.

Interestingly, a painting done in October 1911 by Duchamp seems a precocious illustration of the clairvoyant thought processes so stridently advocated in the “Technical Manifesto.” This work is the *Portrait of Dulcinea* (MD-50), evidently making a literary reference to the *dama (campesina)* who was the amorous object of the ever befuddled Don Quixote’s imaginary chivalric pursuits.⁷⁴ Years later, Duchamp acknowledged that, from the stylistic aspect at least, this painting represented for him “a total break.” It contains, he added, “five silhouettes of woman, one above the other.” Questioned about “the appearance of simultaneity,” Duchamp ascribed this willfully imposed, antimaterialist feature to “my interpretation of Cubism at that moment. There was also my ignorance of perspective and the normal placing

of figures. The repetition of the same person, four or five times, nude, dressed, and in the shape of a bouquet, in *Dulcinea* was primarily intended, at that time, to ‘de-theoretize’ Cubism in order to give it a freer interpretation. . . . Nevertheless, this ‘simultaneity’ is not Cubist.”⁷⁵ Given the distinctive terminology, it must instead refer to the *simultaneità* of the Futurists.

In December 1911, Duchamp painted the *Sad Young Man in a Train* (MD-62).⁷⁶ He explained its significance years later as follows:

Movement, or rather the successive images of the body in movement, appeared in my paintings in October 1911, when I was thinking about doing the “Sad Young Man on a Train.” First, there’s the idea of the movement of the train, and then that of the sad young man, who is in a corridor and who is moving about. Thus there are two parallel movements corresponding to each other. Then there is the distortion of the young man. I called this elementary parallelism [*le parallélisme élémentaire*]. It was a formal decomposition [*une décomposition formelle*], meaning “decomposed” into linear plates, following one another like parallels and distorting the object. The object is completely stretched out—*étendu*—as though elasticized. The lines follow each other in parallels, while changing subtly to form the movement, or form of the young man in question.⁷⁷

Strangely (or perhaps quite logically), this literally moving image seems a recreation of a striking motif described in the 1910 “Technical Manifesto” of the metaphysically-minded Futurists, who then observed a vitalist universe of hidden forces, where:

The sixteen people around you in a rolling motor-bus are, in turn and at the same time, one, ten, four, three; they are motionless and they change places; they come and go, bound into the street, are suddenly swallowed up by the sunshine, then come back and sit before you, like persistent *symbols of universal vibration*. . . . The motor-bus rushes into the houses which it passes, and, in their turn, the houses throw themselves upon the motor bus, and are blended with it.⁷⁸

As Duchamp himself claimed much later, “I didn’t know the Futurists . . . I have never *seen* them. . . . Nevertheless, I was influenced, as one always is, by these things, but I hoped to keep a note personal enough to do my own work. . . . Around June 1912. . . by then I knew about the Futurists.”⁷⁹ Duchamp surely must have known of the ideas of the Futurists before he actually got around to seeing Futurist paintings. Certainly, those dematerializing ideas had been in the air since well before 1909, and in ways that need not have been specifically Futurist; after all, it was the Occultists who had long before railed against materialism and, accordingly, their spiritualized

utopian world was intended to be dematerialized. In chapter 4 we shall assign Duchamp's perhaps autobiographical *Sad Young Man in a Train* some literally hermetic meanings.

After 1911, Duchamp's paintings have nothing to do with either (initially) Impressionism or Fauvism, or (subsequently) Futurism or Cubism. They do, however, have a fundamental, albeit vague and generalized, conceptual linkage with Kandinsky's spiritualized, wholly abstracted, and dematerialized Expressionism. In fact, the interrelated works of the period immediately following 1911 are for the most part harbingers of the mysterious and complex *Large Glass*, including two versions of the *Nude Descending a Staircase*, a series of *Kings and Queens*, and another series of *Virgins and Brides*.⁸⁰ These seminal works only look like the works of Duchamp's Futurist and Cubist contemporaries, but what they look like is not necessarily what they actually represent. In an interview with J. J. Sweeney in 1946, Duchamp affirmed that, by 1912, in his mind he was already well past Cubism or Futurism, against which he was deliberately rebelling. For him, Futurism represented merely

an impressionism of the mechanical world; it was strictly a continuation of the Impressionist movement. I was not interested in that. I wanted to get away from the physical aspect of painting. I was much more interested in recreating *ideas* in painting. For me, *the title* ["inscription"] *was very important*. I was interested in making painting serve my purposes, and in getting away from the physicality of painting.⁸¹

As Duchamp continually stressed in his later interviews, his was an essentially ideological art, with different goals from those purely formalistic or physical ends so laboriously pursued by his contemporaries: "*I was interested in ideas*—not merely in visual products. I wanted to put painting once again at the service of the mind, and my painting was, of course, regarded at once as '*intellectual*,' '*literary*' *painting*." Having clearly announced this unmistakable ideological thrust, Duchamp then allied his pre-World War I art with some much earlier art (not further specified) having, he says, both a patently "literary" purpose (allegorical, as we shall soon see) and an over-riding "religious" basis. These were the two fundamental wellsprings of an art of ancient wisdom which Duchamp clearly felt was superior to modernist physicality. As he lamented, "In fact, until the last hundred years, all painting had been *literary or religious*; *it had been at the service of the mind*. This characteristic was lost little by little during the last century. The more sensual appeal a painting provided, the more animal it became, the more highly it was regarded." Duchamp concluded the interview with Sweeney by firmly announcing his own prescription, the basis of all his mature art: "This is the direction in which art should turn: to an intellectual expression, rather than to an animal expression. I am sick of the expression '*bête comme un peintre*'—stupid as a painter."⁸²

In a more particular context, the research of Dieter Daniels now provides us with a specific setting for Duchamp's often repeated aversion to the infamous title "bête comme un peintre," namely *l'affaire Boronali*, in which the castigated avant-garde *peintre* was revealed to be literally *un bête*. In short, in 1910 a painting was successfully submitted to the Salon des Indépendants by a painter named Boronali. His work was appreciatively received, whereas Duchamp's submissions, a series of nudes, were not, being dubbed in the press "irritating" and "ugly." Boronali was also credited with authoring a manifesto proclaiming a new artistic school, *l'Exzessivisme*. The hoax, for such it was, was soon unmasked by a headline in *Le Matin*: "An Ass is the Leader of the School." It seems that a pigment-loaded brush had been tied to the tail of a tethered donkey and the animal's automatist twitchings produced the properly splattered, abstract canvas. Daniels's conclusion: "Above all, the Boronali-Episode demonstrates how heated discussions about modernism had become by 1910, and with what level of vehemence and public partisanship they would thereafter proceed."⁸³

From all this, we must now acknowledge that, perhaps as early as 1911, Duchamp saw himself as an atavistic (vs. modernist) rebel. Perhaps his rebellion was merely against the Puteaux Cubists, who had so rudely rejected his *Nude Descending a Staircase*; perhaps his revolt was much more ambitious: against the whole thrust of serious avant-garde art, particularly the painterly kind of abstraction that could be so easily caricatured as excessivistic. Either way, we may additionally suppose that the essence of his own artistic act of atavistic rebellion was to return (or regress) to a primitivist, pre-nineteenth-century cultural consciousness, the kind based upon a primarily idea-oriented imagery which, as Duchamp acknowledged, was simultaneously literary and religious in character. This is the real basis of his highly sophisticated and still perplexing art, an art with a specific content directed to "the service of the mind."

The basic task of the art historian-detective is, therefore, to identify the literary texts belonging to the pseudoreligion in question, so distinguishing the one that really was in the forefront of Duchamp's mind. Having made the essential identification, the next task is to compare the literature associated with that traditional pseudoreligion with the narrative or allegorical content informing Duchamp's artworks. All of this must be done within the known, equally scientific and antiscientific, occult contexts of Duchamp's cultural ambiance and life experiences. As the historical evidence attests, Duchamp's post-1911 art is less about the making of pictures, at least in the traditional Salon sense, than with the expression of a new kind of consciousness rejecting the materialist animality of the present age. Nonetheless, that was a *mentalité* shared by many of his artistic contemporaries using other forms of artistic expression. In brief, although Duchamp was to add a specific kind of esoteric flourish to it, his art, looking not at all Expressionist, fol-

lowed overall the generally occultist program most prominently proclaimed in Kandinsky's *Über das Geistige in der Kunst* and in other writings examined here.

As oracularly stated by Kandinsky, "Spiritual revolution . . . turns away from the soul-less life of the present towards those substances and ideas which give free scope to the non-material strivings of the soul."⁸⁴ Kandinsky's vision was truly apocalyptic, predicting the crashing end of one dreary materialist millennium and the dawn of a bright new one, founded upon Theosophical principles of nonmaterialism and flowering artistic genius. Eloquent as was this clarion call to a utopian future, Kandinsky did not invent this mode of visionary artistic prophecy. As was the case with so much else in the first modernist art writings, it had already been stated much earlier, perhaps most eloquently by Éliphas Lévi. In fact, as the French Magus had announced as early as 1860,

The science of moral equilibrium will put an end to religious disputes and philosophical blasphemies. Men of understanding will be also men of religion, once it comes to be recognized that Religion does not impeach the freedom of conscience, and when those who are truly religious shall respect that Science which recognizes, on its own part, the existence and necessity of a Universal Religion [i.e., Occultism]. Such [occult] Science will flood the philosophy of history with new light, and will furnish a synthetic plan of all the natural sciences. The law of equilibrated forces and of organic compensations will reveal a new chemistry and a new physics. So, from discovery to discovery, we shall work back to Hermetic Philosophy, and we shall be astonished at those prodigies of simplicity and brilliance which have been so long forgotten.⁸⁵

The forthcoming age of Hermetic Enlightenment prophesied by Éliphas Lévi promised a "new chemistry" and a "new physics." Evidently, his prophesies were amply fulfilled. According to the Notes for his *Large Glass*, Duchamp's art after 1915 was also expressive of a new chemistry and a new physics. As Lévi stated, all of these pseudoscientific phenomena are harbingers of a new human consciousness postulated upon an occult science of timeless moral equilibrium. In this utopian millennium, Lévi and his followers believed, the Arts must similarly flourish. As Lévi majestically promised in his *L'Histoire de la Magie* (1860),

Error thenceforth will be possible to ignorance alone, and true knowledge will be free from self-deception. Estheticism will be subordinated no longer to caprices of taste which change as fashions change. . . . Poetry will abound no longer with foolish and subversive tendencies, nor will poets be those dangerous enchanters whom Plato had crowned with flowers—and then banished from his Republic; they will be rather magicians of reason and gracious mathematicians of harmony. . . . Society

will be governed by its true masters, and there will be no irremediable evil in human life.⁸⁶

Alas, a century and a half later, we—as postmodernists—know better.

One final observation should be made at this point regarding Marcel Duchamp's unquestionably prestigious artworks. This commentary emerges from a serious look at his youthful work and their cultural milieu. Rather than as eucharistic simulacra, why not instead evaluate them vocationally, simply as shop work, physical products resulting from an informed application of craft as triggered by the imagination? The technical analysis of this young artist's innate abilities works most candidly in the pre-1912 oeuvre; after that date, a twenty-five year old painter became truly inspired—but by what? Realistically viewed, Marcel Duchamp's surviving early efforts are rather mediocre. Robert Hughes eloquently explains why artists, art critics, and art historians today are generally unable to see the technical deficiencies I am about to mention. The perceptual problem today is mainly due to “the frivolity of late-modernist art teaching—no drawing, just do your own thing and let Teacher get on with his.” In Duchamp's day, however, things were different; as Hughes wryly observes,

With scarcely an exception, every significant artist of the last hundred years, from Seurat to Matisse, from Picasso to Mondrian, from Beckmann to de Kooning [Duchamp excepted], was drilled (or drilled himself) in “academic” drawing—the long tussle with the unforgiving and real motif which, in the end, proved to be the only basis on which the great formal achievements of modernism could be raised. Only in this way was the *right* to radical distortion within a continuous tradition *earned* and its results raised above the level of improvisory play. This kind of rigor had been leached out of American art schools by the 1970s.⁸⁷

And much of the credit for that omnipresent technical omission may now be credited to Duchamp's posthumous fame.

One may now propose a wholly nonesoteric, banal explanation for Marcel's shift in 1912 to decidedly esoteric subject matter; this artistically informed *aperçu* seems never before mentioned in the abundant Duchamp bibliography. As any provincial, but well trained art teacher could now tell you, the young Duchamp's draftsmanship is generally slack and often downright sloppy, even inept. The brushwork usually neither functions well as physical, retinal description nor even usefully as decorative embellishment. Likewise, the color in these examples is unimaginative and largely conventional: Duchamp's color formats become, sequentially, *impressioniste*, *symboliste*, *fauviste*, *expressioniste*, *cubiste*, *futuriste*, *orphique*, etc. Beyond the chronological march of trendy chromatic identifications, overall the youthful Duchamp's palette reveals no coherent or imaginative *Farbsprache*

(Kandinsky's "Color-Language"); a lone exception is the 1910 *Portrait of Dr. Dumouchel* (fig. 2), but the specific inspiration for that is revealed in the next chapter. Worse than the persistent problems of physically mediocre and mentally flaccid technical execution, glaringly apparent even in his early Cubist efforts, Duchamp's juvenilia reveals no original ideas.

The demonstrably good work by Duchamp only begins in December 1911, with *Jeune Homme triste dans un Train* (MD-62), and is quickly followed by the initial oil sketch, *Nu descendant un Escalier no. 1*, which leads directly to the famous *Nude Descending a Staircase*, executed in January 1912 (MD-63, MD-64). Now let us get really down to earth with our shocking professional criticisms, and with reference to very specific works, all supposedly finished canvases, executed by Marcel Duchamp a year or two before his mysterious mid-1912 sojourn in Munich.⁸⁸ Were this juvenile work so earnestly wrought by Duchamp between 1910 and the middle of 1911 to be submitted today under a different name for admission into a provincial graduate art school program in the US, such mediocre work would be dismissed by studio faculty members as thin stuff, in short, as not graduate level work.

In fact, Duchamp's compatriots were aware of his youthful professional shortcomings; for instance, in March 1910, even Guillaume Apollinaire, later Duchamp's enthusiastic champion, mentioned in print his "really ugly nudes." Other negative comments also characterize the few published reviews that bother to mention his early work.⁸⁹ In fact, Duchamp only achieved significant professional recognition later in 1915, and only then by emigrating to the United States. America was then a materially modernist, but intellectually naive cultural backwater where an eager but wholly unsophisticated audience, one enthralled by the very idea of art, was ready to swallow—hook, line and sinker—any imported and officially approved, modernist revolutionary effort.

Thus, late in 1911, the autodidact Duchamp finally realized that he had perhaps been performing rather like a beastly painter, *bête comme un peintre*, rather like Boronali. Given this embarrassing revelation, the obvious remedy for the ambitious youth was to come up with a gimmick: self-propelling, philosophical subject matter, a major statement as it were. This philosophical, actually allegorical, subject matter was then to be expressed in a timely, prestigious stylistic garb, a handsome conjunction of Cubist and Futurist technical flourishes.

Thanks to an unprecedented popularization recently performed by the Symbolist avant-garde, late in 1911 *l'Alchimie* provided the most logical, and most available, solution to Duchamp's perceived professional impasse. And, as we shall see, Duchamp had already dealt with this specialized kind of subject matter (fig. 3). Late in 1911, Alchemy seemed to have it all: a major statement propelled by unique, already pictorialized or ready-made topoi. Thus, for Duchamp the next move was to venture into the hermetic realms

of alchemical iconography. Again, why did he do so? Since this issue is stubbornly undocumented my own painterly intuition opts for one reason. More so than any other facet of the Esoteric Tradition, it was Alchemy that most profoundly dealt with (as Jacques Lipchitz put it) those “intangible properties in matter that transcended physical reality.” This particular youthful artist’s choice would have additionally been dictated by the fact that Alchemy is by far the most heavily pictorialized of all the Arts belonging to the Esoteric Tradition.⁹⁰

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Duchamp's first experiments in esoteric and alchemical art, 1910–1912

The principal obstacle to linking Marcel Duchamp's thought and art with Alchemy has been the lack of any substantial historical foundation. Alchemy is just one among various, potentially applicable facets of the Esoteric Tradition, but it can only be *modern* Occultism that would have proved pertinent to Marcel Duchamp. Mainly, a historical vacuum, the want of a credible cultural context, has proven the most glaring irritant for art historians dealing with prior interpretations of the esoteric as they attempt to explain Duchamp's career as a whole. Generally absent in such discussions have been detailed analyses of the individual character and historic situation of various, often diverse components of the Esoteric Tradition.¹ Also lacking, as Linda Henderson recognizes,² has been any attempt to relate such seemingly anachronistic thought to the unquestionably progressive, meaning "modern," ambitions of Duchamp's avant-garde contemporaries. In the matter of Duchamp studies, the esoteric approach has usually led to an unacceptable mishmash, which William Camfield described with understandable distaste as "a freewheeling interpretation that stirs together aspects of Alchemy, the Cabala, Freud, Tarot cards, and all the gods of structural linguistics, from Ferdinand de Saussure to the present."³

A more specific irritant has been the absence of a chronological analysis of when and how Marcel Duchamp might have wandered into this tricky subject matter. As shown here through extensive exposition, *when* (as a tentative *première essai*) was in April 1910, but an explanation of *how* becomes more complicated, for the development of Duchamp's esoteric

exercises over the next few years did not follow a linear trajectory. In 1913, just as Duchamp had embarked upon an increasingly profound study of his esoteric source materials, there appeared a bibliography in French listing hundreds of publications dealing with “the psychic and occult sciences”; if nothing else, that handy catalogue demonstrates a rich diversity of occult diversions available in France—including Alchemy, the Cabala, Tarot cards, as well as Rosicrucianism, Spiritualism, Theosophy, and Anthroposophy—to anyone with an interest in such matters at that time.⁴

Even though the Esoteric Tradition embodies a largely indigestible intellectual mishmash, it does represent the essential ideological context for another historical artifact that has been posited (and rudely dismissed) in connection with Duchamp’s art and thought: Hermeticism. Hermeticism is nothing new within the Esoteric Tradition; the oldest of its texts, dealing with the physical practices of Alchemy, date back to the Hellenistic era.⁵ A complementary problem in much discourse about the Esoteric Tradition, especially that produced by its true believers, is a general lack of methodologically sound historical analyses of its more significant constituent parts. The traditionally trained historian would prefer that discussions of esoterica, which are often mere celebrations, would instead coherently examine the historically useful issues of moments of appearance, florescence, and decay, and the structural situation of esoteric expression in a given time and place. Besides being internally complex, the Esoteric Tradition is dynamic in the historical sense; to use its own terminology, it “evolves.” Such historical research would also benefit in discussions of Hermeticism and Alchemy, for which there is evidence of substantial differences between the ancient and modern varieties.

Also typically omitted in interpretive studies of our particular artist have been detailed analyses of, for instance, the crucial historical role played by both the Esoteric Tradition and scientific, (materialist) innovation within the French Symbolist milieu of Duchamp’s youth. Without solid groundings in such broader cultural problematics, the esoteric interpretations applied to Duchamp have admittedly lacked a credible foundation in historical and documentable fact, and so have typically been rejected out of hand. Hopefully, this investigation will help fill these significant historiographic lacunae.

It seems relatively easy to document the nature of, and even to pinpoint specific published sources for Duchamp’s first overt flirtation with the themes and iconography of the Esoteric Tradition. The key work demonstrating an early affinity for the Occult by Marcel Duchamp, then aged twenty-two, is his *Portrait of Dr. Dumouchel*⁶ (fig. 2). The canvas is known to have been executed in Neuilly in April 1910, at which time Raymond Dumouchel was a recently graduated medical student and one of Marcel’s oldest friends; they had known one another since their school days in the Lycée Corneille, where they first met in 1897. Rendered in the then fashionable fauvist style,

this painting is characterized by large, thick masses of iridescent color, where swirling blue-green and purple clouds fill the background. Wearing an acid-green coat, Duchamp's young physician friend is curiously characterized by the beginner-portraitist as surrounded by a purplish irradiation, something like an anomalous St. Vitus' fire. His extended left hand seems especially to blaze with fiery vibrations. These phenomena, once read as iconographic attributes belonging to a largely symbolic portrait, clearly set this painting apart from Duchamp's previous oeuvre.

The peculiarity of Dumouchel's aureola is alluded to in an inscription, composed in four lines and put by Duchamp on the back of his canvas: "à propos de ta 'figure' / mon cher Dumouchel / Bien cordialement / Duchamp." Some years ago, Lawrence D. Steefel wondered whether this "cryptic inscription is also a sign that Duchamp is intrigued by the power of the Occult, the mystery of hieratic symbolism, and the traces of hermetic practices?" More specifically, Steefel remarked that the whole canvas "also emanates an uncanny aura of a hallucinatory, spiritualistic illumination."⁷ As Duchamp himself admitted many years later, "the halo around the head indicates my deliberate intention to add a touch of willful distortion."⁸ Whatever it may mean, Duchamp's aureola motif was unquestionably deliberate, indeed "willful." Although Steefel did not further explore or document his suggestive thesis pointing to an early interest by Duchamp in "the power of the Occult," his observation turns out to be the most likely explanation for the intrinsic significance of the puzzling portrait. Moreover, since the artist caused the word *figure* to be carefully set off by quotation marks, it becomes apparent that its meaning was intended to be figurative rather than literal. Hence, "figure" should be taken here to mean "form," in the typological sense of a "distinctive configuration." In a broader sense, this term may be additionally understood to indicate that Duchamp was deliberately representing some intrinsic quality of his old school chum. The iconographic attributes of irradiating auras obviously transcend the merely pictorial or retinal means of naturalism. Therefore, according to the artist's own terminology, this is a portrait that really is about the meaning of Dumouchel's psychic *figure*.

There are two ways to approach the meaning of these willfully distorted attributes of the young Dr. Dumouchel. The first explanation is wholly realistic and is based in contemporary science. An erudite Gallic spokesman for this interpretation, Jean Clair, explains that a certain Dr. Tribout was, like Dr. Dumouchel, one of Marcel's classmates in Rouen. Moreover, "a pioneer of radiology [X rays] in France, perhaps Tribout directed Duchamp's attention toward certain extra-retinal phenomena associated with radiation"; perhaps, Clair speculates, these even included that bizarre "electric halo surrounding the hand of his colleague, Dr. Dumouchel, in his portrait."⁹ Manifestations of natural radioactivity had only been known to scientists since 1896, after their discovery and publication by Antoine Becquerel.

Not surprisingly, the Occultists of France quickly found the topic of X rays one which neatly fit into their own esoteric programs. In fact (but as Clair did not then mention), the French Occultists soon developed their own, typically pseudoscientific counterpart to Röntgen's X rays, the mysterious "N rays." Even more interesting, those *Rayons N* were discussed at some length in a wholly esoteric book which Duchamp is now known to have owned. The idea of spiritual emanations, called "auras" or "astral bodies," had become a staple of modernist occultist literature, particularly the kind dealing with the "transmigration of souls"—*la métempsycose*. The popularity of the astral motif was particularly due to the translations of various widely read works composed a century and a half earlier by Emanuel Swedenborg, subsequently triggering a deluge of further spiritualist publications (see chapter 1). This is the textual tradition to which we should assign the conception of Duchamp's *Portrait of Dr. Dumouchel*.

Although perhaps more obsessed with historical documentation, I am certainly not the first to suspect Duchamp's early allegiance with motifs drawn from the Esoteric Tradition, and particularly as such conclusions might be based upon this particular portrait. In a letter dated July 22, 1951, Walter Arensberg specifically asked his artist-friend if what he called "the halo" in the *Portrait of Dr. Dumouchel* had any direct relation with "occultism." Duchamp's immediate reaction was largely to deflect the question; his reply was simply that "the 'halo' around the hand, which is not expressly motivated by the hand of Dumouchel, is a sign of my sub-conscious preoccupations directed towards something beyond realism." As then explained by Duchamp, "it has neither a definite meaning nor any explanation; instead, it is the gratification of a need for the 'miraculous' which came [to me] before the Cubist period."¹⁰ Nonetheless, Duchamp had included the same kind of "miraculous" motif of the body-aura in other, contemporaneous works. These include a 1910 oil sketch, *Nu debout* (MD-46), also dedicated to Dr. Tribout,¹¹ and, about year later, a portrait of his sister Yvonne, *À propos de jeune Soeur* (MD-43),¹² as well as a narrative oil painting called *Le Buisson* (MD-42).¹³ By reference to standard occultist publications of the period, I shall first provide a general, contemporary definition of such body-auras, apparently including the ones seen in these early works by Marcel Duchamp. Having done that, I will then attempt, using a well-known Theosophical text, to provide an esoteric but concrete interpretation of the colorful iconography of the *Portrait of Dr. Dumouchel*.

Unfortunately, we know very little about Duchamp's reading materials in any phase of his career and nearly nothing about his working bibliography during this crucial early period. For instance, in a letter to his sister Yvonne in 1946, Duchamp wrote that only "5 or 6 books are all that form my library," and that the copy she had just sent him of Lautréamont's *Les Chants du Maldoror* (1868–1870), a key work of the Symbolist era, was "the first I've

had since 1912.”¹⁴ So what other books did he possess before 1912? Alas, we can never know for sure. Therefore, I shall have to reconstruct on the basis of circumstantial evidence the titles of various publications that he may have had at hand and that, presumably, he used as reference materials for the composition of some of his most puzzling works.

A welcome exception to this bibliographical ignorance is an esoteric treatise which was only recently recognized to have been owned by Duchamp. Written by Pierre Camille Revel, its omnibus title is *Le Hasard, sa Loi et ses conséquences dans les sciences et en philosophie, suivi d'un Essai sur la Métempsychose considérée au point de vue de la Biologie et du Magnétisme physiologique*.¹⁵ The particular edition to which I shall refer of this odd volume dealing with “Chance, its Laws and Consequences in Science and Philosophy (Followed by an Essay on the Transmigration of Souls from the Perspectives of Biology and Physiological Magnetism),” the one once owned by Duchamp, was published in Paris in 1905 by the Bibliothèque Chacornac. According to the title page, this particular volume belongs to Chacornac’s comprehensive *Librairie Générale des Sciences Occultes*. Therefore, what follows was clearly understood by Duchamp to pertain to the ideas and practises of “Occult Science.” In English, “metempsychosis,” just as in the French, *la Métempsychose*, means “the transmigration of souls”: pure Occultism. In dealing with this text (as I will often do in with future citations by other esoteric authors), key phrases in the original French will appear between brackets; those familiar with Duchampian terminology will often find in such passages many nearly exact replications of typically eccentric bits of language reappearing much later in Duchamp’s endlessly equivocal Notes for the *Large Glass* (figs. 1, 11).

The discussion in Revel’s lengthy occultist treatise that most concerns us at this point deals with the subject of “Les Effleuves humains (Rayons N).”¹⁶ As the author acknowledges, discussions of the “human emanations” or “magnetic fluid” have long been a staple of Occultist-Spiritualist literature; as such, they have naturally long been “contested by official science.” But since 1895, there is news of a certain scientific discovery that lends substance to the previously discredited esoteric beliefs, and this new revelation belongs to the N ray. As Revel explained to an esoteric audience, now known to have included Marcel Duchamp,

M. d’Arsonval, a member of the Academy of Sciences, has just presented a lecture before said Academy concerning the discovery of rays emanating from the human body and made visible by means of radium lighting [*lumière du radium*]. Two researchers from the city of Nancy, Messrs Charpentier and Blondlot, are the first who have used this procedure to perceive these rays, which they have called “N” after the initial letter of the word “Nancy.” Blondlot recounts how, while making a study of X-rays, they began to notice the emission of other rays which

did not, however, refract like X-rays. He shared his perceptions with his colleague, Charpentier, who, on his own account and, he says, quite by accident [*et par hasard*], began to notice that in the proximity of a muscle the florescent screen began to glow more brilliantly. So he asserts that it was the muscular tissue which had caused the emission of [N-] rays and that, additionally, this emission became all the more intense the closer it came to the nervous tissues. We are pleased that science has finally taken heed of this phenomenon, especially as it opens up the door [to further esoteric perceptions]. . . .

Several [N-ray] photographs represent the mental shapes of human thought [*des formes mentales de la pensée*]. . . . In the same manner, there have also been produced images of the fluid energy [i.e., auras] emitted by animals and plants. Observed among these emissions are some that are colored. . . . Doubtless, these colorations must be in complete accord with the physical or mental states of those persons who are emitting their magnetic fluids upon the photographic plates. . . . Each sickness has its own vibrations and, once plates better enabled to register this kind of [psychic] vibration are invented, then medicine will have made a great step forward.¹⁷

Further on, Revel turns to discuss the findings of Hippolyte Baraduc, who “has taken as his subject matter ‘the Fluidic Man [*l’homme fluidique*],’ a type who is manifested in radio-photography of human subjects and which is registered by the movements of a bio-metrical needle [*aiguille biométrique*], which, by means of the arcs of various circles, both enciphers and measures the different vibrations produced by a double fluidal matter contained within the human body.” In the course of his investigations, Baraduc “exposed a series of photographs showing the imprints of a man’s vital force, and these he has divided into two categories: waves of emanation, irradiations and flashes of vitality [*éclats de la vitalité*].” The final result is that, “together, these three methods allow for a complete accounting of the behavior of vital movement, also including its photo-chemical power [*sa puissance photo-chimique*] and its relative degree of luminosity.”¹⁸ Conforming to the familiar pseudoscientific method so beloved by modernist occultist researchers, Revel uses the discoveries of contemporary science to substantiate those ancient claims of the Esoteric Tradition that, ironically, are constantly being discredited by modern science. As he claims (but others would disclaim),

In spite of its terminology, which might seem foreign to the uninitiated, Occultism is, in effect, exclusively rationalist. For some years, various scientific discoveries—particularly those of the X-rays, of wireless telegraphy, and also the N-rays—have come to transform a certain number of scientific theories and, at the same time, these serve to justify certain theories and to explain certain phenomena which have been categorized, and right up to the present day, as being exclusive to the Occult

Sciences. The recent discovery of N-rays by Professor Blondlot in Nancy ought to open up the portals of official science to a certain number of facts and theories which, until just a few days ago, the majority of researchers have rejected with disdain as only belonging to the uncertain domain of Occultism. These N-rays are radiations produced by the most diverse kinds of light sources. They can be stored up in various objects, such as gold, silver, iron and flint, and these then become new centers for the emission for N-rays. . . . These rays increase the flashing of an electric spark [*étincelle électrique*] and they cause screens coated with fluorescent substances to become luminous. They are polarizable and refracting and conform to the laws of reflection. Whereas they pass through [*transversent*] certain bodies otherwise opaque to light, N-rays do not make any impression upon photographic plates. . . .

It is worth recalling that, according to the [esoteric] magnetizers, all inorganic bodies present either a positive or a negative magnetic state, and that human magnetic fluids can be stored up by different bodies, and particularly by flint. An analogous belief is found in ancient Chinese medical [alchemical] theory, according to which such or such medicine is, by nature, either hot or cold, active or passive, dry or humid, male or female [*mâle ou femelle*]. More particularly, these schemes reveal, above all, the two great principles belonging to all things, that of Yang (the positive [male] principle) and Yin (the negative [female] principle). Magnetizers and Occultists must feel triumph as they see the existence of the N-rays now admitted to by science. . . . This new discovery, which seems so to interest non-believers and scientists alike, did not at all surprise those given over to the close study of Occult Science. The latter have long since known about the existence of human radiations, and these now appear to include N-rays.¹⁹

The other book in question, one that allows for a much more specific iconographic, even polychromatic, reading of the *Portrait of Dr. Dumouchel*, was called *Les Formes-pensées*. This classic example of Theosophical literature appeared in a French translation in 1905, just five years before Duchamp painted his still puzzling portrait. Originally entitled *Thought-Forms*, the work authored by Annie Besant and C. W. Leadbeater, often translated, was first published in English in 1901. This modestly proportioned but copiously illustrated volume has been previously recognized to have served as an inspiration (specifically in its German version: *Gedankenformen*, 1908) for Wassily Kandinsky and Franz Marc, also for Frantisek Kupka, known to be Duchamp's artistic and esoteric mentor.²⁰ Given the Futurists' notorious interest in psychic "lines of force" revealing invisible "psychic states," we may suppose this publication to have been of great interest to them as well. Just as Revel had announced that the aura-like "colorations must be in complete accord with the physical or mental states of those persons who are emitting their magnetic fluids," the Theosophical spokespersons Besant and Leadbeater likewise explained that

What is called the aura of man is the outer part of the cloud-like substance of his higher [mental] bodies, interpenetrating each other, and extending beyond the confines of his physical body, the smallest of all. . . . Man, the thinker, is clothed in a body composed of innumerable combinations of the subtle matter of the mental plane. . . . The mental body is an object of great beauty, the delicacy and rapid motion of its particles giving it an aspect of living iridescent light, and this beauty becomes an extraordinary radiant and entrancing loveliness as the intellect becomes more highly evolved and is employed chiefly on pure and sublime topics.

Every thought gives rise to a set of correlated vibrations in the matter of this body, accompanied with a marvelous play of color, like that in the spray of a waterfall as the sunlight strikes it, raised to the *n*-th degree of color and vivid delicacy. The body under this impulse throws off a vibrating portion of itself, shaped by the nature of the vibrations and this gathers, from the surrounding atmosphere, matter like itself in fineness [which it takes] from the elemental essence of the mental-world and it may be used as a most potent agent when directed by a strong and steady will. . . .

Where the man is of a gross type, the desire-body is of the denser matter of the astral plane, and is dull in hue, browns and dirty greens and reds playing a great part in it. Through this will flash various characteristic colors, as his passions are excited. A man of a higher type [to the contrary] has his desire-body composed of the finer qualities of astral matter, with the colors, rippling over and flashing through it, fine and clear in tone. While less delicate and less radiant than the mental body, it forms a beautiful object, and as selfishness is eliminated, all the duller and heavier shades disappear. . . .

When a sudden wave of some emotion sweeps over a man, for example, his astral body is thrown into violent agitation, and its original colors are, for the time, almost obscured by the flush of vibration of that particular emotion. . . . The radiating vibration, therefore, will be a complex one, and the resultant thought-form will show several colors instead of only one.²¹

Some broader contexts and meanings of these esoteric “astral bodies” were subsequently enunciated by C. W. Leadbeater in his book called *Man Visible and Invisible* (1902). Passages from this important Theosophical publication are worthy of citation because, besides reiterating standard notions about the wholly occultist astral bodies and haloes—the kind discussed by Revel in the book Duchamp is now known to have owned—they additionally document the role played within the Esoteric Tradition of important emblematic themes employed by Duchamp and long recognized by various Duchamp scholars. In short, the writings of Besant and Leadbeater prove that Theosophists often discussed both symbolic chemistry and the fourth dimension. Especially significant in this context is the fact that their pub-

lished opinions appeared years before the second topic ever became a routine staple of published avant-garde art criticism. The topic of *le quatrième dimension* (about which I shall have more to say in chapter 7) has been often studied by academic Duchamp scholarship, but rarely from the historical perspective of its *locus classicus* within the Esoteric Tradition, where, moreover, it was often symbiotically chained to discussions of Occult Chemistry.²²

Leadbeater begins his discussion of “The Planes of Nature” by placing his argument within a theoretical, rampantly pseudoscientific context belonging to what he rightly calls a wholly “Occult Chemistry”:

We are aware that matter exists in different conditions, and that it may be made to change its conditions by variation of pressure and temperature. We have the three well-known states of matter, the solid, the liquid, and the gaseous, and it is the theory of science that all substances can, under proper variations of temperature and pressure, exist in all these conditions.

Occult chemistry shows us another and higher condition than the gaseous, into which also all substances known to us can be translated—or transmuted; and to that condition we have given the name of “etheric.” We may have, for example, hydrogen in an etheric condition, instead of as a gas; we may have gold or silver, or any other element, either as a solid, a liquid, or a gas, or in this other higher state, which we call etheric. . . . Occult science has always taught that all these so-called elements are not, in the true sense of the word, elements at all. . . .

The study of these units and of the possibilities of their combination is, in itself, one of the most enthralling interest. Even these, however, are found to be units only from the point of view of our physical plane; that is to say, there are methods by which even they can be subdivided, but when they are so broken up they give us matter belonging to a different [fourth-dimensional] realm of nature. Yet this higher matter also is not simple but complex; and we find that it also exists in a series of states of its own, corresponding very fairly to the states of physical matter which we call solid, liquid, gaseous, or etheric. Again, by carrying on our process of subdivision far enough, we reach another unit—the unit of that realm of nature to which occultists have given the name of the astral world [after which comes] the unit of this third great realm of nature, which in Theosophy we call the mental world. . . .

In our literature these different realms of nature are frequently spoken of as planes, because in our study it is sometimes convenient to image them as [layered] one above another, according to the different degrees of density of the matter which they are composed, as filling the same space and inter-penetrating one another.²³

After situating his other-dimensional topic within an initial context of “Occult Chemistry,” Leadbeater’s next chapter proceeds to deal with the

central issue of “Clairvoyant Sight,” which the author links neatly to the preceding arguments:

This brings before us another very important consideration. All these varieties of finer matter exist not only in the world without, but they exist in man also. He has not only the physical body, which we see, but he has also within him what we may describe as bodies appropriate to these various planes of nature, and consisting, in each case, of their matter. In man’s physical body there is etheric matter as well as the solid matter which is visible to us; and this etheric matter is readily [and uniquely] visible to the clairvoyant.

In the same way, a more highly developed clairvoyant, who is capable of perceiving the more refined astral matter, sees the man represented at that [etheric] level by a mass of that matter, which is in reality his [astral] body, or vehicle, as regards that plane; and exactly the same thing is true with regard to the mental plane in its turn. The soul of man has not one body, but many bodies, for when sufficiently evolved [spiritually] he is able to express himself on all these different levels of nature, and he is, therefore, provided with a suitable vehicle of the matter belonging to each, and it is through these various vehicles that he is able to receive impressions from the [spirit-] world to which they correspond. . . .

Every time that we think, we set into motion the mental matter within us, and a thought is clearly visible to a clairvoyant as a *vibration* in that matter, set up first of all within the man, and then affecting [any] matter of the same degree of density in the world around him. But, before this thought can be effective on the physical plane, it has to be transferred from that mental matter into astral matter; and when it has excited similar vibrations in that, the astral matter in its turn affects the etheric matter, creating sympathetic vibrations in it; and that, in turn, acts upon the denser physical matter, the grey-matter of the brain. . . . Thought appears to be an instantaneous process; but it is not, for every thought has to go through the stages which I have described. Every impression which we receive in the brain through the senses has to pass up through these various grades of matter before it reaches the real man, the ego, the soul within.²⁴

The chapter following deals with “Man’s Vehicles.” After listing their exotic nomenclature—“the names used in Theosophical literature for the higher planes are derived from Sanskrit, for in Western philosophy we have as yet [1902] no terms for these worlds”—Leadbeater enumerates the colorful, painterly effects of the fourth plane, or fourth dimension. Again, he relates such esoteric and fourth-dimensional phenomena directly to the spiritual operations of Occult Chemistry:

In the lower part of it, the matter is very readily moulded by the action of human thought into definite forms, while on the higher division this

does not occur, but the more abstract thought of that level expresses itself to the eye of the clairvoyant in flashes or streams. A fuller account of this will be found in the book *Thought-Forms*, where are portrayed many of the interesting figures created by the actions of thoughts and emotions.

The name "astral" is not of our choosing; we have inherited it from the medieval alchemists. It signifies "starry," and is supposed to have been applied to the matter of the plane next above the physical because of the luminous appearance which is associated with the more rapid rate of its vibration. The astral plane is the [psychic] world of passion, of emotion and sensation; and it is through man's vehicle on this plane that all his feelings exhibit themselves to the clairvoyant investigator. The astral body of man is, therefore, continually changing in appearance as his emotions change. . . . All known colors, and many which are at present unknown to us, exist upon each of these higher planes of nature; but as we rise from one stage to another, we find them ever more delicate and more luminous, so that they might be described as higher octaves of color.

As man learns to function in these higher types of matter, he finds that the limitations of the lower life are transcended, and fall away one by one. He finds himself in a world of many dimensions, instead of one of three only; and that fact alone opens up a whole series of entirely new possibilities in various directions. The study of these additional dimensions is one of the most fascinating that can be imagined. Short of really gaining the sight of the other planes, *there is no method by which so clear a conception of astral life can be obtained as by the realization of the fourth dimension.*²⁵

These are the explanations commonly given by innumerable authors adhering to the Esoteric Tradition for the same kind of *auréola* so prominently displayed within a few works executed by Duchamp during a brief period in 1910 and 1911. To summarize, first, while the Theosophists particularly doted upon these kinds of visualized psychic apparitions, the same kind of descriptions and interpretations of the body-auras were also commonplace among French authors of the Esoteric Tradition who were themselves not necessarily Theosophists. One of those authors was Revel, whom we do now know to have been studied by Marcel Duchamp. Secondly, such discussions had been around long before the invention of Theosophy. The importance of these neo-Spiritualist phenomena for the art historian is that: (1) they were once widely reported; (2) they deal with visual materials; (3) the effects attributed to them could often be very colorful indeed; (4) they were typically tied to the contemporary findings of legitimate scientists; and (5) they historically preceded the acknowledged dating for the invention of wholly abstract painting. This observation merits a brief digression exposing the historical sources of the art-historical problem posed by Duchamp's body-auras.

Around 1910 Kandinsky gave his new and radically abstract art a descriptive name, “*gegenstandslosen Malerei*” (objectless, or nonobjective painting).²⁶ Nevertheless, perhaps the art history textbooks ought to be rewritten: one important antecedent for (if not the actual invention of) *gegenstandslosen Malerei* turns out to be some wholly abstract paintings executed by a Victorian-era spinster-Spiritualist, Georgiana Houghton (1814–1884).²⁷ The Victorian Spiritualists’ Union (VSU) in Melbourne, Australia, is the repository of the remains of Houghton’s extant corpus, comprising thirty-five small watercolors (averaging 33 x 24 cm.). Most of these were painted between 1862 and 1870, after which Houghton took up “spirit photography” with equal vigor.

Also in the VSU is a printed copy of the thirty-two-page catalogue *Spirit Drawings in Water Colours*, issued in 1871 for Houghton’s exhibition of 155 pieces shown at the New British Gallery in London. In her self-authored *catalogue raisonné*, this British pioneer abstractionist gave detailed explanations of the basis of her precociously nonobjective work. According to her obscure publication, Houghton, who remained always a devout Protestant, had first heard about spirit communication in 1859, when she was forty-five years old. By 1861, she had begun to employ a planchette to receive series of automatic messages sent from the deceased; these she proceeded to copy down following a procedure called “automatic writing.” In this case, as with the more recent example of the Surrealists, *l’écriture automatique* led directly to wholly automatist artworks, the kind that produce the supposedly purely modernist “image made by chance.”²⁸ That epochal year, 1861, was also the time in which Georgiana executed her first spirit drawings. On the advice of her spirit-guide, Houghton abandoned all her mechanical aids, all consciousness, and vigorously began to compose freehand, automatically, with brushes and paints.

I must make further mention of the forgotten prehistory of automatic writing, the kind employed by the Surrealists as *l’écriture automatique*, which the modernist French, male visionaries get credit for inventing. A little investigation into the matter shows that, nonetheless, it had all been reported long beforehand, and then was commonly practiced by droves of humble, nonartist types, many of which were women. Typically, these automatist pictorial pioneers were Occultists. As is common knowledge, the Swedish seer Emanuel Swedenborg is to be largely credited with instigating the eventual explosion of nineteenth-century Spiritualist movements.²⁹ As has also been repeatedly emphasized in the better historical studies of the Esoteric Tradition, an ubiquitous Spiritualist technique is what we might call *l’écriture automatique (avant la lettre)*. In his fundamental text *Heaven and Hell* (1758), Swedenborg devoted an entire chapter to the subject of “Written Materials in Heaven,” where it was ponderously affirmed that:

Inasmuch as angels do have a spoken language, and their language involves words, they also have written materials; their minds convey meaning through written materials as they do through speech. Several times, I have myself been sent pages inscribed with their writing—some are just like handwritten pages, some like pages published in print in the [real] world. I could even read them in similar fashion, but I was not allowed to get more than one or two meanings from them. This is because it is not in keeping with the Divine design for anyone to be taught by means of books from heaven, [but] only by this means is there a communication and a bonding of heaven with the world.³⁰

Then there follows Swedenborg's description of just what such marvelous heaven-sent calligraphy must look like. As we read here, authentic "written materials in Heaven" incorporate certain, apparently specifically gestural traits. According to the descriptions given by the Swedish seer, these configurations appear to conform in every stylistic detail to descriptions of various manifestations of direct or automatic writing and painting that apparently arose as the result of the precedent set by spiritualist séances with professional mediums during the Victorian era. These verbalized configurations also very much resemble the emblematic stylistic features of modernist non-objective painting, from Kandinsky to Pollock, thence to present practice. According to Swedenborg's rather specific descriptions,

In the inmost heaven, writings are made up of various curved and rounded forms. The curves and roundings are in keeping with heaven's forms. By their means, angels present arcana of their wisdom, and many things beyond the power of words to express. . . . The arcana of heaven [are expressed] even in its jots, tips, and tittles. This writing, made by figures drawn from the heavenly form, is used in the inmost heaven, where people are, above all others, involved in wisdom [and] through these figures they present the affections, from which thoughts flow, following in sequence, according to the substance of the matter in question. . . . These writings enfold secrets that cannot be plumbed by [rational] thinking. . . . With the vowels, they express feelings; with the consonants, thought-concepts, derived from feelings.³¹

Since Houghton's spiritualist oeuvre typically contains no depictions of human beings, nor any other recognizable physical objects, it is literally "objectless-*gegenstandslos*" painting (*mais bien avant la lettre académique*). Indeed, these spiritual pictures are wholly based upon intricate, flowing, and generally swirly linear designs, free-form meshes of brightly colored spirals, vortices, and arabesques, where each line is placed parallel or concentric to another. Houghton's brightly hued color scheme is also unusual, original for its time, as the white ground lends a great amount of luminosity to the whole

composition. One result is that the physical technique of Houghton's spiritualist oeuvre vaguely echoes certain contemporary French Impressionist canvases which are, to the contrary, largely representational. Houghton's paintings are instead precociously more modern, even Kandinsky-like, inasmuch as they are wholly nonrepresentational.

The reverse side of most of Houghton's paintings are covered with elaborate calligraphic scrolls, many containing detailed exegeses of their spiritual authorship; for instance, the inscription placed on the back of one reads, "I, David, was assisted in the creation of this drawing by many saints, also by Gabriel, the messenger of the Lord." A commentary included in Houghton's catalogue of 1871 reveals the symbolic significance, a kind of quasi-narrative content, that she usually attached to her compositions. As the alert art historian also recognizes, this chromatic-symbolic interpretation is completely expressionistic (*mais bien avant la lettre expressionniste*). According to Houghton, "every human emotion is a spiritual substance. If good, [it is] gloriously coloured, and transparent as light, but dense and opaque if the reverse. . . . The name of the colour embraces the characteristic it denotes: carmine, *tenderness*; cobalt blue, *truth*; crimson lake, *love*; violet carmine, *religion*; Chinese orange, *unselfishness*. . . ."³²

The evidence for what may be called a directly applicable Spiritualist-Expressionist connection is provided by none other than Kandinsky (who had never heard of Houghton). As he wrote some decades later in *Über das Geistige in der Kunst*, colors produce a "psychic effect [*die psychische Wirkung*]"; this is because, he adds, they have a chromatic language all of their own, that is, a "*Farbensprache*." The immediate result is that, as Kandinsky says (and as Duchamp read), "they produce a corresponding spiritual vibration [*seelische Vibration*]." The Russian extended his remarks with the same kind of detailed discussions of chromatic-emotionalist linkages that Houghton had announced some forty years previously—and that Leadbeater and Besant describe more recently. As Kandinsky put it,

A warm red will prove exciting, another shade of red will cause pain or disgust through association with running blood. . . . One might say that sharp yellow looks sour because it recalls the taste of a lemon. . . . Many colors have been described as rough or sticky, others as smooth and uniform, so that one feels inclined to stroke them (e.g. dark ultramarine, chrome oxide green, and rose madder).

Further on, one realizes that Kandinsky's approach is actually "synesthesia," a simultaneous blending of all the sense perceptions.³³ According to the painter-theorist, "the expression 'scented colors' is frequently encountered. And finally the sound of colors is so definite that it would be hard to find anyone who would try to express bright yellow in the bass notes, or dark lake in the treble. . . . Red lights stimulate and excite the heart while blue

lights can cause temporary paralysis. . . . Color can exercise enormous power [Kraft] over the body as a physical organism." These were the sort of "synesthesiac" observations that Kandinsky made in his chapter on "The Effects of Colors." His next chapter, "The Languages of Form and Color," dealt more emphatically with the kind of strictly emotionalized (or pseudo-psychological) effects of chromatic values that Houghton had discussed in her texts. According to Kandinsky,

Yellow is the typically earthly color[;] it may be paralleled in human nature with madness, not with melancholy of hypochondriac mania but rather with violent raving lunacy. . . . Blue is the typically heavenly color. The ultimate feeling it creates is one of rest. When it sinks almost to black it echoes a grief that is hardly human. When it rises towards white, a movement little suited to it, its appeal to men grows weaker. . . . Green is the most restful color that exists. . . . Pictures painted in shades of green are passive but tend to be wearisome. . . . In the hierarchy of colors green represents the bourgeoisie: self-satisfied, immovable, narrow. It is the color of summer. . . . White is a symbol of a world from which all color, as a definite attribute, has disappeared; this world is too far above us for its harmony to touch our understanding. . . . White has the appeal of the Nothing that exists before birth, of the world in the Ice Age. . . . Black is something burnt out, like the ashes of a funeral pyre, something motionless, like a corpse. . . . Gray is silent and motionless. . . . A light and warm red gives a feeling of strength, vigor, determination, triumph. . . . Brown is unemotional, disinclined for movement.³⁴

Unquestionably, Georgiana Houghton and Wassily Kandinsky, whom Duchamp assiduously read, were moved by the same sort of spiritualist impulses, and both employed essentially automatist procedures. Form follows function: in each case, the results are nonobjective paintings. In this case, it was the man who got the credit for the momentous invention, whereas his female predecessor largely remains forgotten. That said, we may return to consider Dr. Dumouchel's colorful emanations as representing Duchamp's *signe de mes préoccupations subconscientes vers un métaréalisme*.

Another of those Symbolist-era authors who wrote about the astral bodies and auras was Léon Denis. Among other works, he was the proud author of *Dans l'Invisible* (1904), subtitled a "Treatise of Experimental Spiritualism." According to Denis, there exists a certain class of *la matière, devenue invisible, impondérable*, which the Occultists designate as being *fluides*, and "it becomes one of the forms of energy." "Known by the names of odic, magnetic, neuritic, and etheric force," states Denis, "we call it psychic force because it obeys the will." He goes on to say:

It is in itself the motor [le moteur]; the limbs are its conducting agents; it particularly expends itself in the fingers and in the brain. There exists

within each of us an invisible furnace [foyer] where the radiations will vary in amplitude and intensity according to our mental dispositions. Willpower can, by itself, communicate to these radiations certain special properties; that is the secret of the curative power of the magnetizers. . . . *Les médiums* can exteriorize this force in great abundance through physical effects. Nonetheless, we all possess this force in diverse degrees. It is by means of this force [*cette puissance*] that elevations of tables, transportations of untouched objects, the phenomenon of kinetic transmigration, automatic writing on slates [*l'écriture directe sur ardoise*], and similar effects are produced. Its action is constant within all these spiritualist manifestations.

The [psychic] outpourings [*effleuves*] from the human body are luminous and are colored by a variety of hues; so say sensitives, those whose sight has been impressed with these effects in total darkness. Certain mediums can see these, some even in full daylight. . . . These outpourings form around us concentric layers which constitute a kind of fluidic atmosphere. This is the AURA of the occultists [*c'est l'AURA des occultistes*], also known as the human photosphere. . . . The radiations coming from psychic forces can probably be photographed. . . . This possibility demonstrates that psychic forces, just like ultra-violet rays, or the Roentgen X-rays, can work upon the silver salts [of a photographer's plate]. . . . Anger, sorrow, ecstasy, prayer and love all have their own special radiations. Therefore, a photographic plate, that "fixed gaze upon the invisible" [*ce "regard ouvert sur l'invisible"*] becomes the irrefutable witness of the raying out of the human soul.³⁵

As all of these esoteric-minded writers remark, those best equipped by their nature to perceive these intensely colored, even painterly, body-auras are, either by profession or by avocation, *les médiums*. But what if one's profession was that of a painter? Can these two avocations, the one clairvoyant and the other artistic, ever be fruitfully conjoined? According to Marcel Duchamp, they certainly could. As he explained in 1957 in a public lecture,

Let us consider two important factors, the two poles of the creation of art: the artist on the one hand, and, on the other, the spectator, who later becomes the posterity. To all appearances, the artist acts like a mediumistic being who, from the labyrinth beyond time and space, seeks his way out to a clearing. If we give the attributes of a medium to the artist, we must then deny him the state of consciousness on the esthetic plane about what he is doing or why he is doing it. All of his decisions in the artistic execution of the work rest with pure intuition and cannot be translated into a self-analysis, spoken or written, or even thought out.³⁶

Indeed it was the "mediumistic beings" of the later nineteenth century, particularly a host of talented sensitives practicing spirit painting by strictly automatist means, who had first consistently created that kind of wholly

modern art—*l'art abstrait*—derived from pure intuition, intellectual unconsciousness, and pure automatism.³⁷

It turns out that it is especially Besant and Leadbeater's *Les Formes-pensées* which can be even more specifically tied to Duchamp's peculiar iconographic choices displayed in 1910 for his pioneering *Portrait of Dr. Dumouchel*. The connection becomes particularly clear once Duchamp's brightly colored and intensely vibrating motifs are interpreted as consciously selected symbolic attributes of Dumouchel's aura-like "figure." The frontispiece attached to every edition of *Thought-Forms* is entitled "A Key to the Meanings of Colors." This lithographed plate exhibits twenty-five squares, each with its distinctive color, arranged symmetrically into five identical rows. Each colored square bears its own caption, and each brief, numbered inscription serves to directly refer to a very specific mental state corresponding to a specific hue, also numbered, which belongs only to that particular emotional disposition. Presumably, once a clairvoyant perceives a particular hue in a given subject's astral body, he then quickly turns to the key in order to identify it, and by these means he is directly enabled to ascertain the mental state of his subject at that moment. In short, what we have here is an easily manipulated didactic tool by which to create what we might call "an iconography of psychic conditions." Obviously, this kind of completely unambiguous key would prove of great utility for any aspiring psychological portrait-painter, especially one of expressionistic tendencies, who might happen to come across it. One of those was Wassily Kandinsky; others were Franz Marc, Frank Kupka, and, evidently, Marcel Duchamp.

This key also immediately unlocks the basic underlying meanings of Duchamp's *Portrait of Dr. Dumouchel*. The young physician-subject's vibrating body-aura is blue and purplish in color; according to the key, such colors always signify an overall "Love of Humanity," "High Spirituality," and "Devotion to a Noble Ideal." These are all positive psychic attributes. Similarly, the greenish hues seen on the young doctor's coat, which spill out into the turbulent psychic atmospheric conditions characterizing the lower left part of the background of his portrait, further tell us of his innate qualities of "Sympathy" and "Adaptability." Can one imagine any more colorful, fitting, and highly flattering qualities to be attributed to what Duchamp called "*le halo de la main*," in this case an obvious reference to the "healing hand" of the recently graduated M. D.³⁸

In this case, it is indeed Dumouchel's hand which holds the psychic Key; as Denis observed in 1904, once "the Force" comes upon you, "it particularly expends itself in the fingers and in the brain." As may now be argued, Duchamp's initial flirtation with occultist iconography belongs to a brief period in his career which we might now designate as being Theosophical. As might be further suggested, even at this very early stage of what I believe was to become a lifetime involvement with the ideas and

iconography of the Esoteric Tradition, Duchamp treated his occultist subject matter in a witty, even ironic fashion. One can easily imagine him telling Dumouchel, his *copain du lycée*, exactly what he had done with his portrait, and just where he had gotten his droll ideas. Surely, the young doctor would have been not only flattered but also hugely amused by the results.

Another painting of this period which has previously eluded credible analysis is *Le Buisson* (MD-42).³⁹ On the one hand, its very title, *The Bush*, probably makes an implicit reference to current primitivist concerns held by the fauve artists, particularly those concerned with a pursuit of a carefree, childlike, or pre-civilized lifestyle in nature. In fact, the French verb *buissonnier* literally means “to live in the bush,” but has been typically understood to signify antimaterialist lifestyles carried out in a primordial state of nature. Duchamp himself retrospectively admitted to the crucial ideological importance of this painting within his development: “The presence of a non-descriptive title is shown here for the first time. In fact, *from then on, I have always attached an important role to the title.*”⁴⁰ In the case of one early painting, the first one given a title with “an important role,” we find that the probable meaning of *Le Buisson* becomes much less elusive if we similarly interpret this work along classic Theosophical lines.

Apparently painted between January and February 1911, it shows two nude women. Placed in a heavily forested landscape and hieratically posed, they, like Dr. Dumouchel, are enveloped by a bright blue body-aura. The younger of the two kneels while her head is reverently touched by an older woman who stands beside her with averted eyes. The action uniting the two nudes is a ritualized gesture familiar from any number of medieval Christian paintings, particularly those depicting initiatory baptismal scenes. According to Jean Clair, this act clearly represents “une geste de bénédiction,” specifically one “dealing with an initiatory rite, perhaps the evocation of the passage of the Virgin to some secret state of knowledge.” Clair also aligns this work with the *Large Glass*, appearing a few years later, for their conjoined body-aura seems to him to present us with “une véritable ‘auréole’ de la Mariée, revealed in the very moment of her ‘passage’ from one state to another.”⁴¹ Perhaps correct, that must still remain an insight that presently only rests upon hindsight or informed retrospect.

On the other hand, what would have been easily available to Duchamp since 1905 was the text of *Les Formes-pensées*. As one may now question, why is the astral body inextricably linking the two women depicted in *Le Buisson* tinted a bright azure hue? As Duchamp might have read in the handy manual of esoteric chromatic iconography composed by Besant and Leadbeater, for Theosophists there exists a certain color they call “the loveliest pale azure, with a glory of white light shining through it—something indeed to tax the skill of the indefatigable artist.” And just what does it signify on the

spiritual plane that so preoccupies all Theosophists? According to Besant and Leadbeater, "It is what a Catholic would call a definite 'act of devotion'—better still, an act of utter selflessness, of self-surrender and renunciation."⁴² Curiously, the kneeling blond acolyte's flesh is colored a gleaming pale yellow. If we were to grant to this hue a specific symbolic significance, the meaning of that is to be found on the very same page of *Les Formes-pensées*, where one discovers that pale yellow stands for the psychic state of "Vague Intellectual Pleasure." The corresponding explanation deserves citation at some length since it reveals the conviction and complication of Theosophical ruminations about spiritualized color theories. In this example a specifically artistic model is again cited:

Yellow in any of man's [or woman's] vehicles always indicates intellectual capacity, but its shades vary and it may be complicated by the admixture of other hues. Generally speaking, it has a deeper and duller tint if the intellect is directed chiefly into lower channels, more especially if the objects are selfish. In the astral or mental body of the average man [or woman] it would show itself as yellow ochre, while pure intellect, devoted to the study of philosophy or mathematics, appears frequently to be *golden*, and this rises gradually to a beautiful clear and luminous lemon or primrose yellow when a powerful intellect is being employed absolutely unselfishly for the benefit of humanity.

Most yellow thought-forms are clearly outlined, and a vague cloud of this color is comparatively rare. It indicates intellectual pleasure—appreciation of the result of ingenuity, or the delight felt in clever workmanship. Such pleasure as the ordinary man [or woman] derives from the contemplation of a picture usually depends chiefly upon the emotions of admiration, affection, or pity, which it arouses within him [or her], or sometimes, if it portrays a scene with which he [or she] is familiar, its charm consists in its power to awaken the memory of past joys.

An artist, however, may derive from a picture a pleasure of an entirely different character, based upon his recognition of the excellence of the work, and of the ingenuity which has been exercised in producing certain results. Such pure intellectual gratification shows itself in a yellow cloud; and the same effect may be produced by delight in musical ingenuity, or the subtleties of arguments. A cloud of this nature betokens the entire absence of any personal emotion, for if that were present it would inevitably tinge the yellow with its own appropriate color.⁴³

To the contrary, the flesh of the older woman, who is evidently more experienced and knowledgeable, is tinted a pale red. She also is most affectionate in her relationship to her younger acolyte, upon whom she bestows that ritualized gesture of benediction. Once again Besant and Leadbeater provide a chromatic explanation that appears wholly consistent with the emerging meanings of Duchamp's *Le Buisson*, namely, the Theosophical belief that

Affection expresses itself in all shades of crimson and rose; a full clear carmine means a strong healthy affection of normal type; if stained heavily with brown-grey, a selfish and grasping feeling is indicated, while pure pale rose marks that absolutely unselfish love which [is] possible only to high natures; it passes from the dull crimson of animal love to the most exquisite shades of delicate rose, like the early flushes of the dawning, as the love becomes purified from all selfish elements, and flows out in wider and wider circles of generous impersonal tenderness and compassion to all who are in need. With a touch of the blue of devotion in it [as is represented by their conjoined body-aura], this may express a strong realization of the universal brother [or sister]hood of humanity.⁴⁴

As it turns out, that underlying theme of initiation, which so many students of Duchamp have observed in *Le Buisson*, was also a topic often discussed by the Theosophists. Most of their arguments were derived from an occultist best-seller wholly given over to the initiatory topic, Edouard Schuré's *Les Grands Initiés*. Since its first appearance in Paris in 1889, Schuré's esoteric opus, subtitled "A Study of the Secret History of Religions," has gone through some 220 editions and by now has reached a readership of nearly a million. Perhaps Marcel Duchamp was one of these eager students of Schuré's initiatory scriptures. If so, then he would have read how "Ancient initiation rested upon a concept of man, both healthier and nobler than ours. We have, today, disassociated the training of the body, soul, and spirit. Our physical and natural sciences, progressive in themselves, set aside the principles of the soul and its diffusion in the universe; our present-day religion does not satisfy the needs of the spirit." Again, the major problem, as was recognized by Kandinsky, is with the present age:

Modern man seeks pleasure without happiness, happiness without knowledge, knowledge without wisdom. . . . "In order to attain mastery," said the sages of the ancient age, "man needs a total remolding of his physical, moral, and spiritual being. Only then can he say that he has conquered fate and that here on earth has acquired his divine freedom. Only then can the initiate become an initiator."

Schuré concludes by stressing the tangible significance of initiation: "Therefore, initiation was, then, something very different from an empty dream, and was, then, far more than a simple scientific precept: it was, then, the creation of a soul through itself, its development to a higher level, and its efflorescence in the divine world."⁴⁵

Schuré also spoke of certain notable female initiates. If one grants the possibility that Duchamp perused this once celebrated occultist philosophical manual, then Schuré's narrative commentaries may be again used to cast specific contextual light upon the meaning of *Le Buisson*. The sensuous

appearance of Duchamp's duo of nude initiates, for instance, reminds one of certain voluptuous Dionysian celebrants, the Bacchantes. According to Schuré's rather poetic reading, these lusty servants of Eros—for whom truly the motto was *Eros, c'est la vie*—mainly chose to appear

in the somber night, when only the murmur of the river between the green banks nearby can be heard, when the silent incantation of Diana reigns over all. . . . They are those white shadows who walk in long lines between the poplars [and are] women who are about to become initiated into the Mysteries of Dionysius. . . . Here no one knows the name of anyone, and each forgets their own. As at the entrance to the holy realm, the mystics leave their soiled garments when they bathe themselves in the river, afterwards clothing themselves in robes of clean linen; here each leaves their name in order to receive another. For seven nights and seven days, one becomes transformed; one passes into another life. They are not grouped according to family or country, but according to the god [Dionysus-Bacchus] who inspires them. The young girls file by [and] move into the depth of the dark forest. From it come violent cries, mixed with languishing sobs. Little by little, these die away. Then a passionate chorus arises from the dark myrtle-wood, mounting to the sky in slow measures: "*Eros*, you have wounded us. . . . Our heart is a consuming furnace. Others die of poverty; it is love which consumes us. Devour us, Eros, *EROS!*"⁴⁶

With Schuré's text in hand, we might even venture to give Duchamp's two initiates their proper names, namely Aglaonice and Eurydice, in which case another sub-text of *Le Buisson* emerges: lesbianism. According to Schuré,

Aglaonice cast her eyes upon Eurydice. She was overcome with a perverse desire, an unbridled evil lust for this virgin. She wanted to draw this young girl into the cult of the Bacchantes, to subdue her, and to give her over to infernal genii after having despoiled her youth. Already she surrounded her with seductive promises, with nocturnal incantations. . . . Eurydice's golden curls flowed over her white shoulders, her narcissus eyes swam with intoxication as she walked toward the mouth of Hell. . . . Dead [she says], Eurydice made me find truth. It was with love that I myself put on the robe of linen, dedicating myself to the Great Initiation and to the ascetic life; it was through love that I entered into magic and sought divine knowledge.⁴⁷

This seemingly perverse textual application actually makes contextual sense. It is notorious that Duchamp fancied himself an initiate of "*Eros, EROS!*" As he explained to Pierre Cabanne in 1966,

I believe in eroticism a lot, because it is a rather widespread thing throughout the world. It replaces, if you wish, what other literary schools

called Symbolism, Romanticism. It could be another “ism,” so to speak. . . . If eroticism is used as a principal basis, a principal end, then it takes the form of an “ism,” in the sense of a school. . . . Erotic was a theme, even an “ism,” which was the basis of everything I was doing. . . . It kept me from being obligated to return to already existing theories, esthetic or otherwise. [It was] always disguised, more or less, but not disguised out of shame.⁴⁸

Another decisive, if easily overlooked, turning point in Duchamp’s early development is marked by his small painting *Paradise* (MD-40).⁴⁹ Painted in Neuilly during the winter of 1910–1911, its link to the psychic portrait discussed above is overt: Dr. Raymond Dumouchel reappears in the painting, but this time in the obviously symbolic role of Adam. In the wider sense, again we are dealing with subject matter of broadly primordial (or *brissonnié*) significance. A rather bashful and modest (*pudique*) Adam-Dumouchel stands next to a crouching and disinterested Eve. These two figures represent the first parents of the Book of Genesis, a man and a woman who were the epitome and original source of all future human generations, whether actual or allegorical. In fact, the narrative must be taken in the latter sense; according to Jean Clair, “On entre ici dans le cycle des peintures [duchampiennes] allégoriques.”⁵⁰ Although Clair correctly observes the art-historical significance of this canvas, he does not specify the actual content of the specific allegory propelling it. Intrigued, we may now hazard an informed guess regarding the character of its allegorical content.

Among other *aperçus*, in this painting we easily find the first clear statement by Duchamp of his forthcoming topics of potential fecundity, that erotic theme to which he referred in his interview with Pierre Cabanne. The more specialized topic of Adam and Eve, when this couple is treated as signs of those eternal feminine-masculine polarities to be eventually resolved within the *coniunctio oppositorum*, was, just as one might expect, also a subject often addressed by the occultist authors of Duchamp’s youth. Edouard Schuré was one of these, and as he explains, “in the Judeo-Christian mind, Eve is the Eternal Feminine.” There is also a potential cryptographic aspect: “The three letters of Eve’s name expressed the three orders of nature, the three worlds in which this thought is realized, and then the cosmogonic, psychic and physical sciences which correspond to them.” Above all, Schuré’s Eve is allegorical, transcendental, part of the duality, for she is:

the Ineffable [which] encloses deep within Itself the Eternal Masculine and the Eternal Feminine. Their indissoluble union [representing the original *coniunctio oppositorum*] makes for His power and mystery. . . . In the story of Adam, Eve, and the Serpent, you will see that the Fall of the first couple, that celebrated Original Sin, suddenly becomes the vast revelation of divine and universal Nature, with its kingdoms, its classes and its specifics, in the tremendous, ineluctable cycle of life.⁵¹

Like nearly every other occultist at work during the last part of the nineteenth century, Schuré must have eagerly read the works of Éliphas Lévi. That earlier authority made much of the allegorical potential contained in the familiar story of Adam and Eve. As he explained in his *Dogme et Rituel de la Haute Magie* (1856), this primordial conjunction also potentially conveys great Kabbalistic wisdom:

Knowledge supposes the “Duad”—a being who knows and an object known. The Duad is the generator of society and of law; it is also the number of the GNOSIS. The Duad is Unity multiplying itself in order to create, and hence in sacred symbolism Eve issues from the inmost bosom of Adam. Adam is the human tetragram, summed up in the mysterious JOD, a type of kabbalistic phallus. By adding to this JOD the triadic name of Eve, the name of Jehova is formed, the Divine Tetragram, which is eminently the kabalistic and magical word, JWH, being that which the high-priest in the Temple pronounced JODCHEVA. So Unity, complete in the fruitfulness of the Triad, forms therewith the Tetrad, which is the key of all numbers, of all movements and of all forms. By a revolution about its own center, the square produces a circle equal to itself, and this is the [alchemical] quadrature of the circle [see fig. 15], the circular movement of four equal angles around the same point.⁵²

As we see from these standard authors, Adam and Eve could function as a symbol of primordial Creation and, additionally, general Cabalistic Gnosis. More to the point, particularly in relation to Duchamp's painting of the first couple in *Paradise*, is the fact that the primordial pair could also generically stand for *l'Amour*. Lévi explains that “Love has a tendency to unify beings,” and, to take the amorous argument an esoteric step further, he goes on to conclude that

Love fashions the sidereal body of the one in the image and likeness of the other, so that the psychic medium of the woman is like a man, and that of the man like a woman. It was this transfer which Kabbalists sought to express in an occult manner when they said, in explanation of an obscure passage in Genesis, “God created love by placing a rib of Adam in the breast of the woman and a portion of the flesh of Eve in the breast of man, so that at the bottom of the woman's heart there is the bone of man, while at the bottom of man's heart there is the flesh of woman”—an allegory which is certainly not devoid of depth and beauty.⁵³

Moreover, any such deep and beautiful allegorical exegesis of the story of Adam and Eve was found frequently to be open to some strictly alchemical explanations. Lévi later concluded, in his *Histoire de la Magie* (1860), that

The name *Adam* in Hebrew signifies red earth, but what is this earth actually? It is that which the Alchemists sought, and it follows that the Great Work was not the secret of metallic transmutation—a trivial and accessory result—but the Universal Secret of Life. The Universal Secret which was sought by mystic Alchemy was more truly that of the life of life; it was the quest of transmutation in God. It was the quest for the middle point of transformation, at which point light becomes matter and condenses into an earth containing within itself the principle of motion and of life. . . .

For disciples of Hermes Trismegistus, the metals were the coagulated blood of earth, passing, like that of man, from white to black and from black to crimson, following the work of the light. . . . The end was more arduous and sublime; it was a question of recovering the adamic earth, which is the coagulated blood of the vital earth; and the supreme dream of the [Hermetic] Philosophers was to accomplish the work of Prometheus by imitating the work of God—that is to say, by producing a man who should be the child of Science, as Adam was the child of divine Omnipotence. The dream was insensate perhaps, and yet it was sublime.⁵⁴

Besides being the great popularizer and synthesizer of modern French Occultism, Éliphas Lévi was an extremely eclectic author. He mixes together nearly all of the diverse strands collectively making up the Esoteric Tradition. Therefore, if one wants to know something more about the alchemical significance of Adam, or for that matter Dumouchel-as-Adam in Duchamp's *Paradise*, one turns to a specifically Hermetic authority cited by Lévi. In French letters, that person was Dom Antoine-Joseph Pernety. As one reads in his *Dictionnaire Mytho-Hermétique* (1787) regarding "ADAM",

This is a name which the [Hermetic] Philosophers have given to their Magisterium [alchemical operation] once it reaches perfection within the red stage. Because their materials are the Quintessence of the Universe and the First Matter of all individual matter in Nature, this *materia prima* presents a perfect correspondence with Adam. In Adam God put together the purest substance of all beings. Besides that, Adam, whose name signifies "redness," best expresses the color and qualities of the Magisterium itself.⁵⁵

Accordingly, the flesh of Adam—Dr. Dumouchel as "the child of Science"—is tinted pale brick-red by Duchamp, while his Eve is a chalky white. That too makes sense, for Eve seems much less significant to the Alchemists; Pernety only says that she represents the "Magisterium of the Wise," a sign of approaching whiteness in the cooked alchemical matter.⁵⁶

So, why did Duchamp put his friend Dumouchel, a youthful *médecin*, in the allegorical guise of Adam? Since Duchamp himself has not left any statement clarifying the reasons for his odd iconographic move, taking these

popular texts of the Esoteric Tradition as our contemporary guide, we can now hazard a learned guess. As one supposes, Duchamp choose, again with Gallic wit, to picture his school chum as that primordial researcher, a novice physician, the "Child of Science," an optimist in search of that elusive "Universal Secret of Life." For him, as for so many other seekers after Gnosis in the early modernist period, "the dream was insensate perhaps, and yet it was sublime."

As we have seen, Duchamp had dabbled on more than one occasion, beginning as early as 1910, with one of the most common iconographic staples drawn from the Esoteric Tradition; this colorful pictorial device was the body-aura, visible only to a well-initiated *clairvoyant*. This motif evidently whetted his appetite for more of the same. Duchamp was certainly not the only avant-garde artist known to be flirting with similarly esoteric materials at that time in order to generate nonrepresentational art which would mean something.⁵⁷ Whatever the intended significance, the visual markers of then popular esoterica appearing in the art of Duchamp's contemporaries usually arose from their preoccupations with signs of hidden forces beyond average human perception. Accordingly, their emblematic devices were mainly visual translations of such occultist topoi as Cosmic Imagery, Synesthesia, Dualism and/or Correspondences, Sacred Geometry, Higher Planes of Existence, Universal Energy and Vibration, Astral Vision, and others. For instance, the sculptor Jacques Lipchitz acknowledged that his innovative Cubist colleagues

made determined, if good-humored, searches in the realm of practical magic and alchemy and tried to cultivate their spirit, if not actually pursue their ends. Thus, we had read *The Emerald Table* by Paracelsus [Hermes Trismegistus]. . . . The Cubists were also very much interested in the occult properties of images. . . . We used to spend hours playing this [neo-alchemical] game, as if to prove to ourselves that there really were intangible properties in matter that transcended physical reality.⁵⁸

The next game, or esoteric tactic, employed by Duchamp was more ambitious than those ludic gambits pursued by his avant-garde colleagues in Paris. This means that, at the very least, his choice of subject matter was more specialized than most others inscribed within the lavish menu of thematic choices offered by the Esoteric Tradition. For Duchamp, the next move was evidently to venture into the realms of alchemical iconography. Why? For one reason, as Lipchitz might have recognized, more so than any other facet of the Esoteric Tradition, it was Alchemy that best dealt with those "intangible properties in matter that transcended physical reality." Another informed guess would have it that our artist's choice was logically dictated by the fact that Alchemy is the most heavily pictorialized of all the Arts belonging to the Esoteric Tradition.⁵⁹ Another reason, mostly overlooked by

Duchamp exegetes,⁶⁰ is that Alchemy actually became newsworthy during the artist's youth.

As we have seen, in chapter 2, in France *l'Alchimie* had already become, again as largely due to Eliphas Lévi, a ready-made paradigm for early modernist artistic integrity and messianic endeavor. It often additionally functioned as a metaphor of individual spiritual purgation. In the more personal sense, Duchamp, like the modernist poetic Alchemists, is known to have exalted the imagination as the primary act of creation. In the way that they were largely misrepresented by the Rosicrucian writers active after the seventeenth century, who were still flourishing as Theosophists towards the end of the nineteenth, the medieval Alchemists had pursued a spiritual quest. In so doing, according to the fin de siècle Occultists, the Alchemists naturally denigrated the intrinsic materialism of their laboratory pursuits. The elaborately detailed mechanical apparatuses they employed were, it was said, merely metaphorical signs of their higher imaginative endeavors. Like the legendary Alchemists, the mature Duchamp reveled in process, the sheer doing for doing's sake, *faire pour faire—l'art pour l'art*. For sensitive souls operating at the fin de siècle, Alchemy was wonderfully pseudoscientific: whereas it was said to be like Science in its emotional commitment to Nature, expressed in practice by elaborately specialized knowledge and a host of ritualistic procedures, it represented, at the same time, complete immateriality. Therefore, it was said, Alchemy was truly objectless and selfless in its real goals.

Nonetheless, after 1902, Alchemy briefly became officially scientific, and thus was made a topic of modernist interest.⁶¹ In that year Ernest Rutherford and Frederick Soddy, British physicists working in Canada with the newly discovered effects of radiation, announced their theory of the transmutation of elements. Since this constituted a dramatic revelation, a kind of intellectual bombshell that genuinely overturned conventional ideas about the nature of matter, it was widely reported, especially in the popular press. Contrary to their findings, a century of theoretical and experimental work preceding their claims had established for most *other* chemists and physicists the conviction of elemental atoms as unchangeable units of matter. For instance, in his 1873 address before the British Association for the Advancement of Science, James Clerk Maxwell referred to the current Darwinian obsession, evolution, as a dynamic theory that should not be applicable, Maxwell said, "to account for the similarity of atoms," meaning their apparent family relations. Maxwell stoutly affirmed, as did all of his late Victorian scientific contemporaries, that whereas "evolution necessarily implies continuous change, the atom is incapable of growth or decay, incapable of generation or destruction." All such recent assurances about the fixed life cycles of atoms, the conventional wisdom of contemporary science, began to be questioned in 1896, when Henri Becquerel announced his discovery of cer-

tain mysterious effects associated with what we now call radioactivity. Those familiar with the Esoteric Tradition will recall that the issue of psychic "evolution"—not to mention some complementary N rays—was a central topic for, among others, the writers of Theosophical and Anthroposophical persuasions.

Initially, students of radioactive phenomena insisted that energy streaming from the interior of the atom could not reflect any basic change in the atom itself, and Becquerel assumed that the emanations of subatomic *puissance* merely represented an enduring form of phosphorescence. Another interpretation, also widely reported, was advanced by Marie Curie. She argued that Becquerel's all-pervasive rays were a secondary radiation, and that emissions by uranium and thorium were stimulated by those elements' absorption of, as she put it, "rays analogous to Roentgen rays [now meaning X rays] that pervaded all of space." It was natural that such analogies should be made: the coeval publication of Röntgen's findings, at the end of December 1895, marked a radical change in collective consciousness. A host of new and unprecedented "invisible realities" had been suddenly exposed by unimpeachable, truly scientific experimentation. Linda Henderson observes that the news of Röntgen's mysterious emanations

triggered the most immediate and widespread reaction to any scientific discovery before the explosion of the first atomic bomb in 1945. During the year 1896 more than fifty books and pamphlets, and well over a thousand papers, were published on the subject of x rays. . . . The x-ray fad produced cartoons, poems, songs, and numerous public demonstrations of x-rays in action [but] the most important lesson to be drawn from Röntgen's experiments was the inadequacy of human sense perception.⁶²

Beginning in 1898, Rutherford, joined three years later by Soddy, began an investigation of the radioactivity emitted by the heavy element thorium. Eventually they deduced that the phosphorescent emanations came not from the element itself but rather from a chemically separable, gaseous product they dubbed (à la Röntgen) "thorium X." The great contrast in physical and chemical properties between the element and its emanation became the first definite clue leading to their theory of the transformation of elements by radioactive decay. As Soddy blurted to his colleague, "Rutherford, this is *transmutation!* The thorium is disintegrating and *transmuting* itself into an argon gas." The natural rejoinder from an aghast and decidedly unmythical physicist was "For God's sake, Soddy, don't call it *transmutation*. They'll have our heads off as *alchemists!*"⁶³

Nonetheless, the esoteric term seemed attractive and most fitting to the situation at hand. In April 1902, Rutherford wrote to Sir William Crookes, stating, "I believe that in the radioactive elements we have a process of disintegration, or transmutation, steadily going on, which is the source of the

energy dissipated in radioactivity.” With Crookes’s encouragement, Rutherford’s provocative conclusions were published in the July, 1902, issue of the *Transactions of the Chemical Society*. Then the word “transmutation” itself became transmuted into “transformation,” and Rutherford concluded “that radioactivity is at once an atomic phenomenon and the accompaniment of a chemical change in which new kinds of matter are produced [that are themselves] a manifestation of sub-atomic chemical change.” His colleague Soddy actually suggested in print that radium was the new “Philosopher’s Stone.” The public, however, mainly knew of these findings in the way that Crookes, himself a committed Spiritualist, described them, that is, as a comprehensive interpretation of radioactivity that, he said, “undermined the atomic theory of chemistry, revolutionized the foundations of physics, revived the ideas of the alchemists.”

This was an idea long held as gospel by the French Occultists. One such was Frédéric Jollivet-Castelot, whom we have already encountered. In a widely discussed article on “L’Alchimie,” appearing in the November 1895 issue of the *Mercur de France*, he observed with pleasure how “the official chemists are accepting our theories of Matter.” In this case, “modern Chemistry” had to do so, especially since “Crookes a découvert, démontré la réalité d’un quatrième mode: la Matière radiant.” Besides “demonstrating the reality of a fourth mode [or potential fourth dimension],” this “radiant Matter,” he says, corresponds to the Alchemists’ “Feu,” likewise to the “lumière astrale” beloved of “les Kabbalistes,” also to “l’Ether que nous [les alchimistes modernes] nous appuyons.” According to the standard Occultist dogma of the time, that “Ether” is likewise “le Protoplasma de la Matière,” and so “L’Ether forme la base de tout,” so provoking the existence of supposed “atomic whirlwinds.” Jollivet-Castelot dramatically described “les atomes, en perpétuel mouvement,” particularly as stirred by that new modernist leit-motif, “l’électricité.” In short, “par Quintessence, les alchimistes entendaient la Matière radiant,” the kind rediscovered by Crookes and his colleagues in “la Chimie moderne.”⁶⁴

Not surprisingly, comparisons between modern radiation and medieval Alchemy began to appear after 1902 with increasing frequency in popular literature.⁶⁵ Curiously perhaps, in spite of such a radical challenge to conventional thinking, in official publications produced by the scientific establishment, one finds no record of informed opinions calling these alchemical conclusions farfetched. By 1906, the last dissenters fell silent, and the neo-alchemical proposition of subatomic transmutation presented by Rutherford, Soddy, and Crookes became completely accepted as the new creationist gospel. An anonymously authored essay discussing “The Old and the New Alchemy,” appearing in the January 1907 issue of the *Edinburgh Review*, reveals conventional wisdom regarding the exciting new scientific perspectives opening up on the threshold of the age of Cubist revelations:

Modern physicists have gained a point of view from which the search for the [alchemical] philosophers' stone appears less aberrant from reason than it did to their confident predecessors in the Victorian era. . . . An "Urstoff" is implied, nay, insisted upon by an array of well-ascertained facts. Sir William Crookes identified it, a quarter of a century ago, with the "radiant matter" in his vacuum-tubes. . . . It is matter in potency, rather than in act, intangible, inaccessible to sense-perception, probably indifferent to the solicitations of gravity. Critically considered, it is found to consist of countless swarms of "electrons," traveling with prodigious speed. . . . The conservation of mass was heretofore regarded as the corner-stone of the [conventional] chemical edifice. It assumed matter to be indestructible. . . . But the break-up of the atom in radio-active processes lands us on a totally different plane of inquiry. . . . Thus physical science in the twentieth century has been strangely led to reoccupy some of the abandoned strongholds of the discredited horde of alchemists. . . . Should human ingenuity find means, in the future, to fling wide the gates of a half-seen Eldorado then the newer alchemy will far outbid the promises of the old, and will cap its illusory performances with as yet unimaginable realities.⁶⁶

Besides the complementary discoveries of radioactivity and X rays, the period of Duchamp's intellectual formation saw the announcement of electrons, the photoelectric effect, quantum theory, the theory of relativity, wireless telegraphy, and other amazing, truly scientific revelations.⁶⁷ Following one another in quick succession, they officially established in strictly scientific terms novel perceptual premises already fashioned by avant-garde painters of the Symbolist, then Expressionist and Cubist camps. Like the most advanced artists of the period, physicists and chemists alike now seemed bent upon esoteric explorations beyond (*au-delà*) the realm of the merely visible, and thus the rational element previously taken to be latent in every nook and cranny belonging to the physical world was now made potentially mysterious. Now it was official: perception was itself only relative; accordingly, reality itself had to be redefined.

The turbulent years just before the outbreak of World War I marked the point at which the Esoteric Tradition and Science were briefly espoused; as Linda Henderson concludes, "as an example of the supersensible vibrations of the electromagnetic spectrum, x-rays offered contemporary occultists a scientific rationale for phenomena such as clairvoyance as well as telepathy. . . . X-rays and radioactivity had made it impossible for the layman to think any longer of matter as solid and impenetrable or of space as a void."⁶⁸ And, according to Henderson's most recent appraisal (1998),

Now, from an overview of radioactivity as a popular phenomenon, it is clear that Duchamp could hardly have avoided an acquaintance with

alchemy, which was associated with the latest scientific developments that so interested him. . . . Duchamp, like Jarry and Roussel before him, simply borrowed useful models from the closely related realms of occultism and science.⁶⁹

Now, we are able to identify Duchamp's initial alchemical venture. We also know the occasion that impelled this decisive move. Finally, with the advantage of hindsight, we can even suggest the most easily accessible, therefore most likely, published sources for the picture in question, sources that are equally graphic and textual in character. This small canvas (66 x 50 cm.), datable to early August 1911, is called either *A Young Man and Girl in Spring*, or simply *Spring* (*Le Printemps*: MD-47)⁷⁰ (fig. 3). Due to the strict bilateral symmetry of its composition, it seems provocatively singular when compared to Duchamp's oeuvre before this date. The arrangement of the figures and background elements on either half of the vertical axis of Duchamp's picture is nearly identical, or mirrorlike. Taken by itself, this trait of highly formalized, even hieratic disposition suggests a graphic prototype, most likely one with archaic subject matter.

The painting is inscribed and dedicated to Marcel's younger sister Suzanne (born in October 1889): "à toi, Ma chère Suzanne, Marcel." The picture was unquestionably conceived as a *pièce d'occasion*, made as a wedding present (*cadeau de mariage*) to celebrate his twenty-two-year-old sister's forthcoming nuptials, which took place on August 24, 1911. The groom was Georges Desmares, a registered *pharmacien*, which is to say a chemist. As was the case earlier with the *Portrait of Dr. Dumouchel*, Duchamp again found a witty way of celebrating the metaphorical, quasi-professional *figures* of his sitters. In this example, he did so by drawing an appropriate pharmaceutical motif from the iconography of the Esoteric Tradition. So apt was his choice in this instance—for the hermetic theme he picked was the "Wedding of the Opposites"—that the couple later found their natures irreconcilable, and so—*c'est la vie!*—they eventually got divorced.⁷¹

As may now be easily demonstrated, the underlying narrative element of Duchamp's *Le Printemps* is essentially allegorical in nature. Moreover, it clearly deals with an image basic to all alchemical symbolism, the *coniunctio oppositorum*, or marriage of opposites. This theme, also called the "Reconciliation of the Opposites," is in fact a leitmotif that Francis Naumann rightly attributes to the whole of Duchamp's work, including his *Spring*—but that Naumann also says "has nothing to do with alchemy," even though this conjugal topos represents the fundamental issue in Hermeticism!⁷² Moreover, the *coniunctio oppositorum* is especially typical of published alchemical imagery, where traditional hermetic subject matter is customarily represented by complex sequences of anthropomorphic figurations that stand for generally inanimate substances. That the *coniunctio oppositorum* is typical of alchemical

imagery is a point now made familiar to all of us, especially by the research of Carl Gustav Jung (for instance, in his *Psychologie und Alchemie*, first appearing in 1944)—but Jung is one hermetic author I do not believe to have ever been seriously studied by Duchamp.

Just as for a Swedenborgian, to the hermetic philosopher the world and all its component parts are potentially infused with life. Even more significant is the fact that *la vie alchimique* is usually rendered rife with sexual dualisms: *Eros, c'est la vie!* Those generic polarities result from the fundamental opposition of two complementary principles: the active male principle and the passive female principle. As in the case of Duchamp's *Spring*, the hermetic union is figured by the voluptuous conjunction of Sulphur, often called the Sun (*Sol* or *le Soleil*) or King (*Rex* or *le Roi*), and Mercury, commonly known as the Moon (*Luna* or *la Lune*) or Queen (*Regina* or *la Reine*). In alchemical literature, the product or offspring of their heated encounters is the hermaphroditic *Rebis* ("two-thing").

In Duchamp's playfully allegorical painting, two laterally placed nude figures, who look like a youthful Adam and Eve before the Fall, eagerly stretch themselves upwards as though to pluck forbidden fruit from the Tree of Knowledge. The male figure is placed on the right of the composition and the female to the left. Between their strained torsos is a round, clear glass vessel, and Duchamp placed boldly painted highlights on its upper face to make its vitreous nature quite unmistakable. Within the crystalline sphere a small, childlike figure is seen with what appears to be a wing sprouting from behind its head. The infant above would appear to represent symbolically the forthcoming product of marriage between the two figures below. It also appears that originally wings also were placed on the backs of the man and woman. In the case of the slim female figure on the left, Duchamp's pentimento incongruously turns into a huge, pink leaf shape, while the effaced wings on the male to the right have become circular doodles. Once sought, an easily accessible, traditional iconographic model—actually *two* of them—is easily found for Duchamp's conspicuously symmetrical composition, with its marked marital context and unique glass-enclosed mini-person flanked by two nude attendants with distinctively arranged, crooked, and outreaching arms.

The first of the most likely graphic sources for Marcel's *Spring* is found in one of the most popular of all alchemical emblem books, the anonymous *Mutus Liber*, subtitled *Le Livre muet, dans lequel toute la philosophie hermétique est représentée en figures hiéroglyphiques*.⁷³ Its provocative engravings were often reprinted; for instance, one such album appeared in France in 1914, and Guillaume Apollinaire, now Duchamp's fervent champion, published a review praising it.⁷⁴ The *Mutus Liber* was very popular in Duchamp's homeland. This same publication, the "Mute, or Text-less, Alchemical Picture-Book," in the original edition of 1677, is still in the library where Duchamp chose

to work not long after his initial ventures into alchemical artwork (see works marked with # in the bibliography).

A close examination of this widely reprinted picture album seems to indicate that Duchamp's *Spring* makes a clear reference, as a parallel compositional composite, to at least one of the better known of the fifteen engravings illustrating *Le Livre muet*. (fig. 4). In the upper register of the eleventh plate of the *Mute Book* one sees, just as in Duchamp's *Spring*, two winged, youthful, and handsome figures who are similarly placed on either side of a central glass flask containing a smaller figure with a winged helmet. Even the basic arrangement of crooked arms and legs belonging to each figure seen in the alchemical engraving was more or less faithfully duplicated in Duchamp's *Spring*. Because the rigidly symmetrical composition of Plate XI nearly exactly reiterates the layout and details of Plates II and VIII in the *Mutus Liber*, the importance of this particular symbolic arrangement within the sequentially developed narrative scheme of the alchemical emblem book becomes self-evident.⁷⁵

In this instance, there is no doubt that the crystal vessel repeatedly shown in the *Mutus Liber* is, according to standard alchemical terminology, the hermetically sealed "Philosopher's Egg." This kind of specifically alchemical crystal vessel was a standard feature illustrated in many other alchemical treatises; accordingly, the tiny figure that it encloses in Plates II and VIII and IX of the *Mutus Liber* would have additionally been easily identified as representing a seminude *homunculus*, or mini-man, likewise another standard pictorial motif in hermetic publications. However, because of his winged helmet, and since he carries a caduceus with eight snake heads in Plate XI, he is actually to be called *Mercurius*, the prized offspring of *coniunctio oppositorum*, the alchemical marriage. A curious, pseudomedical, even "spermy," explanation of the hermetic *homunculus* captive in his glass prison, or alembic, was provided in the sixteenth century by (among others) Paracelsus in his *De natura rerum*:

The spermatic fluid of a man should be enclosed in an alembic for forty days, and left to putrefy until it starts to live and to move about, which is easy to see. Soon after this, there will appear a form resembling that of a man; but it must be kept moderately and carefully for forty days and at a heat constantly equivalent to that of a horse's belly. After which time, it becomes a real living child, complete with all its members, just like the child born of a woman, only much smaller.⁷⁶

The iconographic relation of the print in the *Mutus Liber* to Duchamp's *Spring*—that is, once the latter is understood to represent a thematic composite of the entirety of this plate—is made even clearer by the compositionally distinct contents belonging to the bottom register of the old, but often reproduced alchemical engraving. Here we see the Alchemist, placed to the

left, facing his so-called Spiritual Sister (*soror mystica*). Both mystical siblings are energetically praying over an empty glass Philosophical Egg, which they have just placed into the alchemical furnace. This vitreous vessel spiritually ascends into the upper register, so becoming its transmuted alter ego. As further transmuted by a certain painter in 1911, we may additionally suppose the Alchemist and his Spiritual Sister appear to have become the “Marcel” and his “chère Suzanne” signalled in the painting’s dedicatory inscription. The standard narrative significance of the bottom register of Plate XI is further explained in a recent commentary as depicting

a couple of alchemists who kneel in front of their furnace which is designed like a castellated tower with three interior parts. At the base a lamp burns to provide a slow steady heat; in the middle of the tower furnace a funnel-shaped device is seen; and immediately above this is a hermetically sealed flask. The male alchemist on the left kneels in passive prayer, while his companion, the female alchemist on the right, is more animated, as if trying to communicate some insight or inspiration; her prayer for the success of the work is a more active exhortation.⁷⁷

But a wholly alchemical interpretation of the figures and actions depicted in Duchamp’s *Spring* need not rest solely upon the graphic authority of a textless *Mutus Liber*. In fact, all the elements encountered both in the print first published in 1677 and in the painting of 1911 are hermetic commonplaces of the postmedieval period. Illustrations of these themes were reproduced in any number of esoteric books published during the Symbolist period. Although the pictorial components of alchemical publications are certainly striking by themselves, one must turn to their accompanying texts—which the pictures only illustrate—in order to perceive their full meanings. What we want now is an authoritative, strictly alchemical explanation for Duchamp’s distinctive pairing of an act of espousal, marriage, and we might also expect that our source would even include a timely, even detailed, reference to the customary season of its specific occurrence, spring.

This combination is in fact easily found. For the definitive answer to the full, conventional meanings of Duchamp’s *Spring*, we may turn to Martin Rulandus, the author of a most useful *Dictionary of Alchemy* (*Lexicon alchemicae*, 1612, marked with # in the bibliography, showing its easy accessibility to Duchamp since at least 1912). Speaking of the standard topos of the Alchemists’ “*Nuptiae*—Marriage,” Rulandus explains that “there is no term in more frequent use among the [Hermetic] Philosophers than the word ‘Marriage.’” Rulandus observes that commonly Alchemists

say that the Sun and the Moon must be joined in Marriage together . . . and all these expressions have reference exclusively to the union between the Fixed and the Volatile, which takes place in the Vase

[or Alchemical Vessel] by the inter-mediation of Fire. All the seasons are fitting for the celebration of this Marriage, but the Philosophers especially recommend Spring (*Primavera*), as that is the period when Nature is most impelled to Generation.⁷⁸

Even the tree, towards which Duchamp's two figures so eagerly aspire, also has a familiar alchemical terminology, namely, *Arbor Philosophicus*. Among the many hermetic authors who discuss the venerable arboreal-philosophical topic, one of the most accessible to Duchamp would have been Dom Antoine-Joseph Pernety. As he explained in his *Dictionnaire* (1787),

TREE is also the name which the Hermetic Philosophers have given to the matter of the Philosophers' Stone, and they do so because that is vegetative in nature. The great Tree [*Arbre*] of the Philosophers means to signify their Mercury, their Tincture, their Principle [*leur principe*] and their Vine; sometimes it also stands for the working of their Stone. An anonymous Authority has written a treatise on the subject which he titled "Concerning the Solar Tree," *De Arbore solari*, and he supposes that it had been transported to a certain Island which was ornamented with everything most precious that Nature can produce; among this bounty there were two trees; one was solar and the other lunar, meaning that the one produced gold and the other silver.⁷⁹

The commonplace Alchemical Tree was, as one might expect, often illustrated in modern hermetic publications, any one of which Duchamp could have easily seen, and or even purchased, in Paris. One of these, which we may now be sure Duchamp knew—indeed most likely owned (and much evidence to this effect will be presented)—was a strictly modern treatment of alchemical iconography, Albert Poisson's *Théories et Symboles des Alchimistes* (1891). Poisson's fifth plate shows the *Arbor Philosophorum*. According to this author's caption, this motif carries a weighty freight of alchemical symbolism, representing nothing less than "The Seven Metals; The Four Elements; The Operations and Colors of the Opus." All of Poisson's engravings were copied from earlier alchemical publications; in this case, the acknowledged source was the frontispiece of a treatise called *Gloria Mundi*, which was published in a famous anthology (itself often cited with approval by Poisson) called the *Musaeum Hermeticum* (1677).⁸⁰ As will be later suggested, Duchamp, following Poisson's lead, also frequently consulted this heavily illustrated collection of famous alchemical treatises.

Even more to the point of establishing the fact of Duchamp's close knowledge of Poisson's *Théories* as early as mid-1911 is this author's illustration—in his "Planche XIV"—of the Alchemical Homunculus put captive within his Philosophical Egg (fig. 5). Poisson's caption tersely explains that this picture was copied from the "*Liber singularis de Barchusen*" [i.e.,

Barckhausen], and that it represents ‘*L’Enfant Enfermé dans l’Oeuf*,’ or “the Child enclosed in the Egg [who] symbolizes the red color announcing the end of the Great Work.”⁸¹ Much more significant in the context of Duchamp’s *Spring* is the fact that this cut—as some scholars already recognize—proves to be the most likely iconographic source for Marcel’s depiction of his homunculus enclosed within the glassy Philosophical Egg.⁸² In short, the arrangement of the winged babyish figure, with widely spread legs and arms upraised to the right, proves to be identical in both the alchemical print (fig. 5) and in the painting later derived from it (fig. 3). We may now present the proof that Poisson’s print in his *Planche XIV* served as the principal iconographic source for Duchamp’s *Printemps* showing an allegorical marriage, that is, should such proof still be needed. Put briefly, the bottom half of Poisson’s Plate 14—which half Poisson states to have been copied from Basile Valentine’s *Twelve Keys*—illustrates a strictly alchemical scene of Marriage, namely, as Poisson describes it, “Conjonction, union ou mariage du Roi et de la Reine.” And *mariage* is of course the subject admitted by everyone to be depicted in the bottom half of Duchamp’s *Printemps*.

Therefore a nearly inevitable conclusion is that it was Poisson’s Plate 14—and its explanatory text—which served as the overall compositional source for Duchamp’s *Spring*. That means that Poisson’s picture (fig. 5) served for both top and bottom, and all together (*tout ensemble*); it provided not only Duchamp’s pictorial arrangement but also the allegorical scenario propelling it (fig. 3). Following Duchamp’s decision to appropriate this particular two-part compositional format from Poisson, I would suggest the painter borrowed further details from the *Mutus Liber* print (fig. 4), displaying the same kind of archaic, two-part symmetrical compositional format. Even if the adaptation process worked in reverse, with our painter first working from the illustration from the *Mutus Liber*, the actual iconographic sources for Duchamp’s *Spring* are now quite clear. This iconographic *trouaille* constitutes, in short, the art historian’s equivalent of a slam dunk in basketball. It also confirms that Duchamp must have purchased (at a mere five francs) a copy of Poisson’s illustrated opusculum before summer 1911, a point I shall further prove by identifying Duchamp’s other, mostly textual citations from this paperback.

Still, at this initiatory stage of his alchemical education, Duchamp would have had to pursue some fairly extensive readings in hermetic literature in order to fully understand the nature of the various motifs incorporated into his painting. This seems an obvious, even naive observation, but it must be belabored: since no one is born knowing about Alchemy, how does one find out about the meanings conveyed by its attractive but inevitably puzzling iconography? Initially, one consults an easily accessible, illustrated publication; that is the way I initially found out about Alchemy, for I too (like Duchamp) was born *sans le savoir*. Accordingly, the problem now

facing us is to identify, in a credible fashion, the titles and authors of specific publications to which Duchamp would have referred to acquire an education in Alchemy. Duchamp's self-taught course in hermetic iconography and allegory began in a rudimentary fashion early in 1911 and apparently continued for some decades afterward (in my case, another hermetic indoctrination began in 1978). Let us examine a particular example, indicating the most likely course of Duchamp's gradual lexicographical education into these arcane matters.

For instance, as one might choose to question, why did he pick "Spring" as the title of his painting? It is curious that this question has never before been rigorously posed by students of Duchamp's early career, especially since it is readily apparent that this title did not exactly fit the occasion for which the picture was painted, if only because Suzanne was actually married in the late summer of 1911. Even Duchamp's choice of the title "Spring" for that particular painting celebrating his sister's forthcoming *mariage* to a *pharmacien* tells us a great deal about the published sources to which the clever artist most likely turned.

Pernety, who often cites Rulandus's alchemical dictionary, also had something significant to say about the symbolic season of "Printemps (*Primavera*)," allowing us to suggest this particular text as another likely to have been handled by Duchamp during the summer of 1911. According to Pernety's description of "SPRING,"

This is the time [*le Printem(p)s*] when Mercury acquires from the air a hot and humid temperament and complexion; this is achieved through a fire of the second degree. This kind of heat must be middling and temperate; it should however also be hotter than that corresponding to [the stage called] Winter. During this regime Sulphur dries out the Mercury. Spring produces philosophical grasses and flowers, which means to say those colors which precede white, and even whiteness itself [*la blancheur elle-même*]. At this point, the alchemical matter can be reduced no further. In order to characterize a certain passage from blackness into whiteness [*ce passage du noir au blanc*], they have designated this stage to represent Spring; and likewise even the alchemical matter itself is called Spring [*printemps, de même que la matière elle-même*].⁸³

Besides explaining the striking "whiteness" (*la blancheur elle-même*) of the two figures in our painting, Pernety's *Dictionary* has much to say about any number of other themes or motifs incorporated in Marcel Duchamp's evidently strictly alchemical treatment of *A Young Man and Girl in Spring*. This dictionary tells us so much that is obviously pertinent to various motifs and themes incorporated within this painting that one should not entertain any further doubts that Duchamp was indeed handling this thick digest of alchemical lore during the summer of 1911; as we now also know, at the

same time he was making many references to motifs drawn from Poisson's *Théories*.

First of all, given the thoroughly documented nature of Duchamp's canvas as a *pièce d'occasion*, namely as a pointed *cadeau de mariage*, there is the matter of the Marriage it was specifically composed to celebrate, which itself represents an extremely important motif in alchemical literature. According to Pernety, who again stresses the significance of the occurrence of *Mariage* in "Spring" (and not in August), the symbolic nuptial rite is to be symbolized by a nude couple:

MARRIAGE. No other term is more employed in the writings of the Hermetic Philosophers than this one. They say that the Sun must be married to the Moon, or Gabertin with Beja, the Mother with her Son, Brother with Sister; and all these couplings only stand for the union of the Fixed with the Volatile, and this is that which must be done within the vessel by means of Alchemical Fire. Even though all the seasons may be seen as appropriate for this marriage, the Philosophers particularly recommend Spring, for this is the time when Nature is most disposed to produce vegetation. Basil Valentine says that the betrothed couple must be despoiled of all their vestments [*dépouillés de tous leurs vêtements*, i.e., "*mis à nu*"], and that they must be made clean and washed before entering into the nuptial couch.

In sum, "the entire secret belonging to the preparation of Alchemical Mercury consists of these purifications."⁸⁴

Pernety then quickly gets to the heart of a complementary theme, Duchamp's depiction of what appears to be a symbolic sibling relationship in his painting of *Spring*:

MARRIAGE. Hermetic Chemists have given this name of "Marriage" to the Union of the Fixed and the Volatile. . . . At this time, Beja is married to Gabertin, Brother to Sister [*du frere et de la soeur*], or Sun to Moon. During this time of the perfect Union, which is wrought by Sublimation, the Alchemist sees presented before him the Marriage of Heaven to Earth, from which Union there were produced all the Pagan Gods. This Marriage represents [above all else] the Reconciliation of Contrary Principles [*cest la réconciliation des principes contraires*], the regeneration of the Mix, which is itself the manifestation of Brightness and Power, enacted upon the Bridal Bed which engenders the Royal Child of the Philosophers: it is he [meaning the *homunculus* in the glass vessel] who is more powerful than his respective Fathers and Mothers; it is he who must pass on his scepter and crown to his siblings. This is the process which the Alchemists have called the Incest [*l'inceste*] ensuing between Father and Daughter, Brother and Sister, Mother and Son.⁸⁵

As for the matter of those potentially incestuous Siblings, or those two “*Frères*” that are depicted in Duchamp’s painting, Pernety further tells us that, regarding the “BROTHER,”

It is he [*le Frère*] who represents the Magisterium in its red stage. In his ‘Code of Truth,’ Aristeus says to the King, ‘Give us Brother and Sister, or Gabricius or Beja, for one can not achieve true generation without these two Siblings, nor can any tree multiply without them.’ The Brother leads his Sister, and not the husband his wife; once they become one [*ils seront devenus un*], they shall then engender a Child, and this is the one [*the homunculus*] who shall become even more pure than themselves.”

It was also pointed out by Pernety that “the only ones who enter into our Magisterium are Brother and Sister, which really means [Quick-] Silver and her fellow-sufferer, or Mercury and Sulphur.”⁸⁶

Since Marcel dedicated this painting to his sister (*Soeur*) Suzanne, what does Pernety have to say about the Mystic Sister’s crucial role in the Great Work? As he explains, it is she who must represent the White Stage of the Alchemical Operation:

SISTER. It is she [*la Soeur*] who represents the Magisterium in its white stage. It is so called by the Alchemists because they name it their Moon, or Diana, and because the Moon is the Sister of the Sun, just as Beja was the sister of Gabritius, or Gabertin. . . . We shall join them together by an indissoluble bond; so doing, they shall be empowered to engender children who shall be even more perfect than their parents.⁸⁷

If taken literally, which one should not do (but which some Duchamp exegetes have done)⁸⁸, such a union between Brother and Sister—in this case, Marcel and Suzanne—would, obviously, result in incest. Nevertheless, even this kind of apparently dysfunctional familial perversion also has own quaintly allegorical, hence rather innocent, significance in Alchemy. Given the length accorded to the topic of *Inceste* by Pernety, evidently there is much potential alchemical significance to the theme:

INCEST. The Hermetic Philosophers say that the Great Work is consummated by an act of Incest between Brother and Sister [*le grand oeuvre se fait par l’inceste du frère et de la soeur*]. Certain disciples of Pythagorus had remarked (as was stated in the “Epistle of Aristius,” which is put at the end of the *Turba Philosophorum*) to the King ruling the sea coasts, “Your subjects do not produce offspring, and this is because you only conjoin males with males.” And the King replied, “And which thing is more suitable to Conjunction?” Aristeus replied, “Take with you your son Gabertin and his sister Beja; she is the substantial matter of Gabertin and, through their Marriage, we shall then find ourselves delivered of

sadness. It can be done no other way." And as soon as Beja accompanied her husband, who was her brother Gabertin, and once he was put into bed with her, he then died, so losing his lively colors. Speaking of what precedes this [symbolic] operation, D'Espagnet says that Beja was innocent of crime and that her virginity remained immaculate for she had contracted a spiritual love before she gave her vow to Gabritius. This means the same thing as saying that Gabritius (or Gabertin), in order to become whiter, more alert and more fitting for his marital acts [*plus propre aux actes du mariage*], must make a contract with her. The Adepts also state that in this Union between the Male and the Female Principles [*cette union du mâle et de la femelle*] one recognizes the state of Incest between Father and Daughter, Mother and Son. This is taken to be so because in this operation their bodies return to [the condition of] their *materia prima*, which is the composite of their elements and of the principles of Nature herself, in which operations they appear to compound themselves.⁸⁹

We have already read Pernety's comments on the ubiquitous motif of the Alchemical Marriage; but what does he particularly have to say about the idea of any such "Marriage Between Brother and Sister"? It, in fact, reads as follows:

MARRIAGE BETWEEN BROTHER AND SISTER. This [*Mariage du frère et de la soeur*] signifies, according to the terms of Hermetic Science, the mixing of Sulphur and Mercury within the Philosophical Egg. This is the manner they have chosen to employ in order to refer to a copulation of Male and Female Principles [*la copulation du mâle et de la femelle*]. And when the Philosophers say that from this Marriage there is born a Child, who is considerably more beautiful and excellent than its Father and Mother, they mean to refer by this to the engendering of Alchemical Gold, or an auriferous powder; this is what transmutes imperfect metals into Perfect Ones—meaning into Alchemical Gold or Silver.⁹⁰

Finally, we may conclude with the matter of a certain, homunculus-like Child (*Enfant*), shown by Duchamp in *Spring* to be strategically put in the center of his symbolic composition and then properly enclosed within the Philosophical Egg. The *Mytho-Hermetic Dictionary* describes the figure as follows:

CHILD. Quite often the Hermetic Chemists have given this name [*Enfant*] to their Sulphur, but sometimes they bestow the same name upon their Mercury. The Four Children of Nature are the Four Elements, to which Mercury attaches herself in order to form all sublunary beings. . . . Alchemical Philosophers have found that this Child is formed by Nature, and that their secret operation consists of wrenching this child from its matrix or mother-lode; then they nourish it with the

[symbolic] Milk which is most fitting for its growth. . . . As they say, this Child is more noble and perfect than its father and mother, for it is itself the offspring of the Sun and Moon, and it had the Earth herself as its very first wet-nurse.⁹¹

Regarding the internal narrative matter of *Le Printemps* (fig. 3), it may now be concluded that Duchamp probably first saw an often reprinted print included in the *Mutus Liber* (fig. 4). Intrigued by its inherently provocative alchemical symbolism, for which the anonymous author of a certain Mute (or captionless) Book did not provide any textual explanations, Duchamp then turned to the most accessible kinds of complementary, printed exegesis. In this case, it becomes quickly apparent that one obligatory textual source should have been Pernety's exhaustive *Dictionnaire*. Whereas there is, of course, no way to prove that the chain of events actually happened this way, all the evidence nonetheless suggests this to have been the most likely route for Duchamp's sudden acquisition, in mid-1911, of some fairly sophisticated knowledge of the inner workings and significance of standard alchemical iconographic motifs. All these he found explained by Albert Poisson, who even provided Duchamp the complete compositional format (fig. 5) eventually appearing in his painting of a joyful hermetic coupling in *Spring* (fig. 3). In any event, this is certainly the most obvious, or least esoteric, explanation.

I have gone into great detail about Duchamp's *Spring* for three reasons. In the first place, it is the first work by him in which the underlying subject matter is, as it should now be clear to any objective-minded student of the matter, wholly alchemical in nature. For this conclusion, I have presented evidence, both graphic and textual, most of which has not previously entered into discussions of Duchamp's *Spring*. Besides having been easily accessible to our artist, both kinds of supporting materials, graphic and textual, are complementary and certainly should establish my initial assertion: Marcel Duchamp did indeed begin a very serious study of alchemical lore as early as the summer of 1911.

The second reason for this very detailed interpretive analysis is, at the very least, to demolish all future attempts to claim, as did Duchamp himself in 1959 to Robert Lebel, that he was always completely ignorant of Alchemy, meaning of its principal motifs and of its major themes. I increasingly mean to make that conclusion—*Duchamp était sans aucun savoir de l'Alchimie*—patently untenable. The third point is that, given the institutional resistance to the alchemical interpretation of Duchamp's career, in these and many forthcoming analyses it seems that one has to quote persistently from certain alchemical texts (mostly in French, otherwise in Latin), endlessly reiterating the real significance accorded to a hackneyed series of standard hermetic motifs. However hackneyed, these motifs were standard hermetic themes to which Duchamp endlessly referred in the pictorial motifs, and, especially in

the inscribed titles of his various works. This kind of unrelenting textual analysis seem to be the only viable means by which to prove the point that, even though it was apparently denied by him, Marcel Duchamp, the acknowledged Artist of the Century, certainly did know Alchemy.

In sum, the principal Duchampian *motif-à-clef* throughout his artistic career is that of the Alchemical Marriage. A point that should now be considered proven is that this perennial Duchampian *motif-à-clef* actually did make its premiere appearance in the painting of 1911 called *A Young Man and Girl in Spring*, or simply *Spring* (*Le Printemps*: fig. 3). The traditional motif now shown to have shaped its compositional particularities, Alchemical Marriage, stands for a hermetic concept broadly summing up, in a single image, all those generalized conditions of “les amours hermétiques,” and to which the idea of *mariage*, the obvious goal of all esoterically overheated *célibataires* in pursuit of a chaste *Mariée*, has always referred. In short, that is also the essential meaning of the acknowledged central work in Duchamp's entire career, the *Large Glass* (figs. 1, 11; to be discussed in detail in chapter 5).

Students of Duchamp's endlessly enigmatic oeuvre should now finally acknowledge that many of the themes endlessly analyzed by Pernety in his comprehensive *Dictionnaire* (and many more will be quoted in due course) serve to explain the intrinsic significance of innumerable verbal motifs encountered in various texts later composed by Duchamp. Among these, most notable are the Notes (begun in 1912, perhaps even late in 1911) accompanying the forthcoming *Large Glass* (executed 1915–1923), which have previously defied any coherent explanations. Their most consistently credible explications are, for the most part, provided by *l'Alchimie*, particularly as explained in some detail by Pernety and, especially, Poisson. But given the obdurate resistance vocalized by Duchamp's posthumous defense counsels, it seems that this point likewise demands more bouts of interpretive overkill and evidential overload. More evidence from primary documents is needed to convince conventionally trained historians accustomed to dealing with far less esoteric subjects than the likes of Marcel Duchamp and Alchemy.

But what was, after 1911 and *Printemps*, the inner significance of *l'Alchimie* for Marcel Duchamp? Since his was a modern, and certainly not at all a medieval, nor even a particularly scholarly, mind, it seems most logical for us to turn for explanations in popularized introductions to alchemical practices and ideas. If one chooses to pursue the elusive matter of Duchamp's literary sources in a logical and methodical manner, one finds the best solutions to the perennial riddle of Duchamp's art provided in writings by other contemporary, equally French and modernist, minds. In this case, our most convenient spokesman for statements characterizing a strictly modern range of alchemical ideas is a specific author, whom I have already proven to have been once well known to Duchamp, namely Albert Poisson. To the

scholar who has read any number of the much older sources, meaning those hermetic-alchemical texts which had been continuously composed from the Hellenistic to the modernist period (see the bibliography), it is clear that Albert Poisson really had nothing at all new to contribute to ancient Philosophical Science.

In short, since his little volume on the *Théories et Symboles des Alchimistes* was admittedly only intended to serve as an inexpensive *divulgarion* of the ancient wisdom of the Hermetic Philosophy, and since it was one specifically designed to be consumed by modern Frenchmen sorely in need of some ancient gnosis, why should Poisson have tried for originality? In fact, just like the medieval alchemists, Poisson constantly quotes from his traditional sources, always however scrupulously citing author and title. The value of Poisson's well thought out and inexpensive (5 francs per copy) digest of a mass of otherwise often inaccessible and often indigestible primordial wisdom seems unarguable to anyone who has bothered to study its contents in detail. Therefore, especially given the premise that Duchamp knew this work exceedingly well, it seems unnecessary for the most part to cite older classics of the alchemical scriptures. Henceforth, save for some timely references to other works that were conspicuously cited by Poisson (mostly in Latin), only Poisson and Pernety's invaluable and exhaustive *Dictionary*, also easily accessible to Duchamp in Paris during those formative years in his career just before the Great War, need be quoted *in extenso*.

After having pondered the matter for some years, my best reasoned conclusion is that, between July 1911 and July 1912, Duchamp's alchemical research only involved Poisson and Pernety. After that date, coinciding with a mysterious sojourn in Munich (July–August 1912), and as followed by Duchamp's subsequent training and work as a librarian-archivist in Paris (from May 1913 to May [?] 1915), Duchamp's hermetic bibliography seems to become considerably expanded, now including, it appears, some much older publications with Latin and possibly German titles; Duchamp's expanded reading-list will be discussed in due course. But at the beginning of his specifically hermetic research, Duchamp only really needed Poisson to get started. Poisson would have been the author who first recommended to Marcel Duchamp Dom Pernety's nearly inexhaustible *Dictionnaire Mytho-Hermétique*.

At the outset of his paperback introduction to the *Theories and Symbols of the Alchemists*, Poisson cheerfully admits that nearly always "les traités des hermétiques sont obscures." Nevertheless, by dint of willpower and some grinding scholarly labors, even this initially daunting obscurity can be overcome: "Once the alchemical theory becomes familiar, and once you possess the key to the principal theories," Poisson announces brightly, "then you too can boldly begin reading their works." Then the fun of Alchemy really begins: "you will yourself experience great pleasures through deciphering, by spelling out (so to speak) this unknown language, so marching, step-by-step

but ever surely, towards the Light." Quoting Pernetty, Poisson stresses that Alchemy is a kind of artwork which actively works to perfect Nature: "la Chymie hermétique est l'art de travailler avec la nature pour perfectionner les composés que la nature a formés." The noble Hermetic Philosophers are, Poisson declares, selfless men who "abandon themselves to researches delving into the nature of the Philosophical Stone," and they always do so, "not for greed but rather for the love of learning." Then comes an invidious comparison: "False alchemists [those 'souffleurs' already mentioned] only strive to make gold; real Philosophers desire nothing but Science."

As pseudo scientists, the modern Alchemists' goal was essentially theoretical and also fundamentalist: "ils s'enquièreent les principes des choses." As though they were precociously producing ready-mades, these are hermetic artists who create nothing at all; they only modify matter by slightly changing its outer form: "dans l'opération alchimique l'artiste ne crée rien; il modifie la Matière, il change sa forme." Next Poisson states the nature of "the problems which the Alchemists propose to resolve." "The first, and also the principle problem," states Poisson, "consisted in the preparation of a certain compound [*composé*] which was endowed with the property of transmuting ordinary metals into gold or silver, and this was named *elixir, magistère, pierre philosophique ou philosophale*." As if this were not sufficient, according to Poisson, "additionally, the Alchemists were searching for the Alkarest, or universal dissolvent."⁹²

But *la Théorie* is all important to the Alchemist (just as it is for postmodernist art criticism). According to Poisson, alchemical theory is all about the Unity of Matter, and how Matter takes on (like certain, now notorious ready-mades; see chapter 6) a diversity of shapes, and how these diverse forms are combined to produce even more, newer forms. Before diversity—and even before the basic Four Elements: Air-Fire-Water-Earth, and even before Chaos—there was first a single anterior matter, the *materia prima*. Poisson states, "as the basis of hermetic theory, one finds a single great law: *l'Unité de la Matière*. Matter is unitary in nature, ONE, but it can take on diverse forms, and under these new forms it can combine with itself and so produce new bodies in an infinite number of shapes." The Alchemist's world is one of constant flux on the outside and a still, but liquescent stability within: "All things pass and change, and there is a certain Prime Matter [*matière première, or materia prima*], and this precedes, or is earlier than the appearance of the elements. . . . Prime matter is a liquid; it is a kind of water which, at the very beginning of the world, was Chaos itself."⁹³

As soon as there arose Matter, then came the two really essential Alchemical Principles, Male and Female, simultaneously symbols of Sulphur and Mercury. According to Poisson, alchemical Maleness (Sulphur) is essentially an allegorical personification of hoary gender clichés, for it represents the Active Principle, force, colorfulness, combustibility, warfare, aggression,

and hardness. The Female Principle (Mercury) stands for opposed, but equally stereotypical values, namely the Passive Principle, gross matter, brightness, splendor, volatility, fusibility, and malleability. Following the initial establishment of *les principes mâle et femelle*, Sulphur and Mercury, the third factor introduced was Salt, but, says Poisson, “this was simply the means by which Sulphur and Mercury were united, by the vital spirit mediating between body and soul.” Thereby Poisson gives us (just as any other standard alchemical author might) a convincing explanation for Marcel Duchamp’s self-appointed designation, familiar to all students of his career, as *Marchand du Sel*, a “salt-seller.”⁹⁴ Nonetheless, in the end all of these *principes*—Sulphur-Mercury-Salt—are but abstractions:

It is additionally stated that it was Fire which plays the role of Maleness [*le rôle de mâle*] in connection with the Female Matter [*la matière femelle*], and it was in this way that there were engendered all the bodies which now make up the Universe. As we view it, the hypothesis of the First Matter constitutes the very basis of Alchemy; working from this principle, it was then logical to admit the fact of a transmutation of metals. Matter was at first only specified as being either Sulphur or Mercury, and it was said that these two principles were united in varying proportions in order to form all [subsequent] bodies. . . . Accordingly, it is the amount of Sulphur within a given metal which determines its color, combustibility, an ability to attack other metals, hardness, etc.; to the contrary, it is Mercury which represents brightness, volatility, fusibility, malleability, etc.

Later on, there was added a third principle: Salt or Arsenic, but without its having added anything essential to either Sulphur or Mercury. Salt simply represents the means to achieve a Union between Sulphur and Mercury [*le sel c’était simplement un moyen d’union entre le soufre et le mercure*]: it works like a vital spirit mediating between Body and Soul. . . . Sulphur, Mercury and Salt are, in any event, only abstractions [*ne sont donc que des abstractions*], conveniently employed in order to designate a certain group of intrinsic properties.⁹⁵

Following his initial venture into alchemical lore and iconography in or just before August 1911, Duchamp must have continued to study publications dealing with these novel but obviously intriguing materials. Shortly after he completed his relatively straightforward painting of *Le Printemps*, Duchamp decided to pursue a much more specialized aspect of Alchemy.

As early as November or December 1911, we find Duchamp dealing with a single emblematic sign standing for the entire alchemical operation, Rotation, itself an important hermetic process known as *Circulatio*. These mobile motifs, moving from Rotation to Grinding (*broyer*), are also significant features of the extended *Large Glass* project (discussed in the next chapter). In the sort of alchemical publications which Duchamp appears to have con-

sulted beginning in 1911, hermetic Circulation was customarily rendered in a schematic or diagrammatic format, as a circle or wheel. Whereas such circular and spinning motifs are admittedly completely commonplace in most illustrated publications belonging to the endlessly diverse Esoteric Tradition,⁹⁶ given the precedent of a wholly hermetic interpretation of *Spring*, I feel justified in assigning strictly alchemical significance to various rotational works executed by Duchamp immediately following that painting. The advantage of this particular approach to Duchamp's esoteric content, the strictly hermetic one, is that it yields plausible results, also assigning to some of more obscure works executed after late 1911 much more consistent sense than has previously appeared in studies about the artist.

The first concretely iconographic sign of this new rotational interest, which Duchamp was in fact to pursue for decades, is encountered in a small oil sketch (33 x 12.5 cm) called the *Coffee Mill* (MD-61).⁹⁷ According to Duchamp's posthumously published (1973), and typically bland, description of this miniscule mechanical operation, "it shows the different facets of the coffee-grinding operation, and the handle on the top is seen simultaneously in several positions as it revolves. You can see the ground coffee in a heap under the cog-wheels of the central shaft, which turns in the direction of the arrow on top."⁹⁸ He had already said much the same thing in 1966 to Pierre Cabanne:

The origins [of the *Coffee Mill*] are simple. My brother had a kitchen in his little house in Puteaux, and he had the idea of decorating it with pictures by his buddies. He asked Gleizes, Metzinger, La Fresnaye, and, I think, Léger, to do some little paintings of the same size, like a sort of frieze. He asked me too, and I did a coffee grinder which I made to explode; the coffee is tumbling down beside it; the gear wheels are above, and the knob is seen simultaneously at several points in its circuit, with an arrow to indicate movement. Without knowing it, I had opened a window onto something else. That arrow [*flèche*] was an [iconographic] innovation that pleased me a lot—the diagrammatic aspect was interesting from an esthetic point of view.

And when Cabanne acutely questioned whether the image actually "had no symbolic significance," Duchamp answered, again blandly but now also evasively, that it had "None at all. Unless ['symbolism' means] that which consists in introducing slightly different modes into painting." But he did admit outright that "it was a sort of evasion [*échappatoire*]. You know, I've always had this need to be evasive [or 'slippery']—*il y a toujours eu chez moi ce besoin de m'échapper*."⁹⁹ In fact, Pernety gives a very useful contextual definition of the meaning of *échappatoire*, as "ruse," and this I shall quote in due course (in chapter 6) as representing the real meaning of any such *échappatoire* for the ever evasive Marcel Duchamp.

Can we find a likely published source for the various facets belonging to Duchamp's evasive and self-admitted *échappatoire rotatif*? Albeit cleverly concealed, what are the most likely, and most internally consistent, meanings of various themes and motifs compounded in his circulatory grinder? To begin with, one rotates the crank in order to produce coffee grounds in a coffee mill; so doing, one grinds the beans. The French verb for the act of grinding is *broyer*, and this verb has, even in French, a clear-cut alchemical function; according to Pernety's *Dictionary*, "In the terminology of Symbolic Chemistry, *Broyer* refers to the cooking of the [Alchemical] Matter—and not to the pulverizing of it within a mortar, or some other like object."¹⁰⁰ Duchamp's painting depicts, just as he claimed, a *MOULIN à café*. According to Pernety, this object, a mill—*moulin*—has its own particular, but universally understood, alchemical significance, particularly once it is read as the sign of the "MILL OF THE WISE. This [*Moulin des Sages*] stands for the dissolvent of the Philosophers. They have given this name to it for the same reason that they have also called it 'Marble,' 'Sieve,' or 'Mortar'; for which you must read the articles referring to these terms."¹⁰¹

Duchamp also made much ado about his diagrammatic arrow, or *flèche*. According to Pernety's definition, "The arrows of Apollo and also those *flèches* of Hercules only represent the Fire of the Philosophers, all according to the explanations given by Nicholas Flamel for these Hieroglyphical Figures."¹⁰² As Duchamp explained, his symbolic arrow was meant "to indicate movement." The movement so described by the arrow is wholly, purely circular. Therefore, Duchamp's arrow literally indicates a "CIRCLE." Pernety explains this particular motif:

According to the terminology of Hermetic Science, a Circle stands for the circulation of the alchemical matter within the Egg of the Philosophers. It is with the same sense [as *Cerclé*] that they call their operation the "Movement of the Heavens," really meaning the circular revolutions of the elements [*les révolutions circulaires des éléments*]; likewise, they also name the Great Work a "Squaring of the Physical Circle" [*Quadrature du Cercle Physique*; see fig. 15]. Michael Maier composed a little treatise on this subject, the title of which is *De Circulo quadrato Physico, sive de Auro*. Accordingly, the Alchemists divide the manipulations of the Philosopher's Stone into seven Circles, or Operations; nevertheless, all these operations really just boil down to Dissolution and Coagulation. The first Circle represents Reduction, of the First Matter into Water, and the second Circle stands for Coagulation, of this Water into fixed Earth, and the third Circle symbolizes a Digestion of Matter, which process happens only very slowly. This is the reason why Hermetic Philosophers will say that the revolutions of this Circle are realized within the Secret Furnace. The furnace heats up the nourishment of the Child of the Wise, converting it into homogeneous parts, just like a stomach prepares food in order to turn it into tissue for the body.

D'Espagnet, however, will only admit three Circles; he says that it is only through the repetition of these three that one will succeed in reducing Water into Earth, so reconciling the Enemies, meaning thereby joining together the Volatile with the Fixed, the Wet with the Dry, the Cold with the Warm, Water with Fire.¹⁰³

To sum up, what are the broader meanings most likely to have been attached to circles, arrows, and mills—such as they were initially brought together in Duchamp's seemingly inconspicuous painting of a certain *Moulin à Café*? The comprehensive answer to that has to be "Circulation." According to Pernety, it's all rather simple: "CIRCULATION is a term belonging to Hermetic Science, which, besides its alchemical meaning, also again signifies the repetition of the various operations belonging to the Great Work, being those which strictly deal with the multiplication of the quantity and qualities of the Philosopher's Stone."¹⁰⁴ Although rarely considered as having symbolic significance, the intrinsic function of Duchamp's first ready-made—*Bicycle-Wheel*, or *Roue de Bicyclette* (1913: MD-87)—most likely was to signal Circulation (deeper analysis of this emblematic function appears in later chapters).

The visual evidence demonstrating that, at least since mid-1911, Duchamp was consulting Poisson's *Théories* has already been provided (figs. 3, 5). Scholars are of course familiar with Duchamp's seemingly obsessive involvement, during the 1920s, with certain rotative glass disks. At that time, he also executed a number of smaller objects, consisting of spinning disks, many bearing punning or nonsensical inscriptions: *Disques avec inscriptions de calembours*; *Anémic Cinéma* (MD-139, MD-140).¹⁰⁵ To cite but one representative example out of many, a "calemboric inscription" of 1926 (MD-139), we find that it initially reads: "SI JE TE DONNE UN SOU, ME DONNERAS TU UNE PAIRE DE CISEAUX?"—If I give you a penny, will you then give me a pair of scissors? Of course, once Duchamp's inscribed disk begins to spin, it thereafter ceases to say anything intelligible to the viewer. Has this defiantly inscrutable *calembour* perhaps an identifiable iconographic source?

It turns out that in 1891 Albert Poisson had already illustrated the same kind of inscribed and rotating objects (fig. 6). The third engraving in his *Théories* shows two wholly different but similarly verbalized spinning disks, one placed above the other. As was the case with all his other engravings, we are looking at an image reproduced many times previously from a standard Renaissance treatise on the Hermetic Arts; in this instance, the source is, as Poisson announces, Basilius Valentinus's *Azoth Philosophorum* (1613). The calemboric inscription of the superior placed disk illustrated in Poisson's inexpensive paperback book reads: "Visita Interiora Terrae Rectificando Invenies Occultum Lapidem"—"Explore the interior of the earth; rectifying, you shall find the hidden stone." In his "Explication de la Planche

III,"¹⁰⁶ Poisson observes how, Duchamp-like, "once the first letters of each word are joined, one discovers [another word:] 'Vitriol'."

Various symbols placed within the disk illustrated by Poisson (fig. 6) are likewise quickly explicated by this author as representing the Seven Metals, and the Eagle and the Lion, respectively signs of the Volatile and the Fixed: "On y voit de plus les signes des sept métaux: l'aigle, symbole du volatil et le lion, symbole du fixe." The lower disk in Poisson's Plate III has no such plastic symbolism, only a string of Latin words arranged in a trio of concentric circles. As Poisson again explains, the interpretive process is exactly the same: you must join the first letters each separate word in order to find the hidden meaning of the whole, and this is revealed in a single, densely symbolic phrase: "V.I.T.R.I.O.L.; S.V.L.P.H.V.R.; F.I.X.V.M.; L.O.S.E.S.T." This disk-symbol is what might also be described as a particularly choice example of those *Pantacles acrostiques* favored by the Alchemists. Another acrostic pentacle might be spelled "L.H.O.O.Q." (see MD-121; further explained in chapter 6). As Poisson further explains,

Figure III is taken from Father Kircher's *Mundus Subterraneus*. For the first two concentric statements, the procedure for reading these is the same as in the preceding figure [yielding, as we saw, "V.I.T.R.I.O.L"]; one finds *Sulphur Fixum*. For the third phrase the result is *Ergo Sic Tuos Lege Omnes Sophos* ["Hence the Laws of All Your Wisdom"]. The sentence must be divided into two parts; the first part yields "Is" (*Est*), and the second is read beginning with "Wisdom" (*Sophos*), yielding "Sun" (*Sol*). In its entirety it means: "Fixed Sulphur is the Sun." This means that Sulphur, which is the fixed principle, is synonymous with Sun or Gold.¹⁰⁷

Duchamp's word games, which have been aptly called a ceaseless "pyrotechnie calembourdesque," have often fascinated scholars. Michel Sanouillet has collected a huge number of these, which he subdivides into two major categories: *contrepétrie* ("an inversion of letters or syllables within a group of words, generally usually picked to yield others with their own sense"), and *paronymie* ("words with similar pronunciation, but with a different sense and spelling").¹⁰⁸ Whereas the specific mechanics of Duchamp's calembourdesque operations are now best left to philologists, the student of modern esoterica can instead point to their most likely historical sources, meaning in this case ones lurking within the rampantly esoteric milieu of Duchamp's youth. For an initial interpretive recognition of their function purely as *jeux hermétiques*, although Marcel's verbal *jeux d'esprit* have never before specifically analyzed as such, again Albert Poisson seems our best guide. At the beginning of the second part of *Théories*, he reminds his readers that "les traités hermétiques sont obscurs pour le lecteur," also noting that "the Hermetic Philosophers have deliberately [*volontairement*] rendered them obscure."¹⁰⁹

Besides being praiseworthy because he would not sell his artworks, Duchamp, as everyone now admits, was decidedly secretive. These conditions also happen to fit—exactly—the operations of the Alchemists as described by Poisson: “Even if Hermetic Philosophers hide their science, they will nonetheless never sell these secrets. Once they find a person worthy of initiation, they will put him upon the right path, but they will *never* reveal to him everything they know.” One tangible historical result is, as Poisson admits, that “there is no known example of *any* hermetic treatise that ever spoke out openly and at once about all the parts making up the Great Work.” Just like Duchamp, “the Alchemists write in an obscure and symbolic fashion in order to save themselves from being so accused,” that is, of having practiced such an unwelcome magical art.¹¹⁰ Then Poisson names their specific means to achieve this laudable obscurity, namely *les signes* and *les noms*, with the latter typically including “un grand nombre de mots étrangers, hébreux, grecs, arabes.”

For a quick introduction to the kind of polyglot *échappatoires* which might be used by any ingenious and ambitious modern Alchemist, we are provided by Poisson with the following heterogeneous examples: “*hylé, matière première, hypoclastique, vase à séparer les huiles essentielles, hydreloeuum, émulsion d’huile et d’eau, élixir, alcool, alcali, borax, alcali, étain, alafar, matras, alcahal, vinaigre, almisadir, airain vert, zimax, vitriol vert*” These are not however the only verbal ruses traditionally employed by the devious Alchemists; just as did Duchamp, “ils procédaient encore par énigmes,” not to mention their frequent employment of “l’Anagramme,” “l’acrostiche,” “la cryptographie,” and, exclaims Poisson, they even write backwards: “les alchimistes écrivaient à rebours!” Once you have grasped the nature of all such enigmatic *échappatoires calembourdesques*, then you can strike off on your very own to find out just how those endlessly clever Alchemists operate in order to conceal their heterodox ideas: “nous allons voir maintenant comment les alchimistes voilaient les idées.” Thoughtfully, Poisson then tells us—or told Duchamp—exactly where to go for the final word on all such linguistic esoterica: “Nous renvoyons pour tous ces mots au *Dictionnaire mytho-hermétique* de Pernety.”¹¹¹ Accordingly, we too shall turn to Pernety to disentangle Duchamp’s vocabulary.

But exactly what is the great alchemical significance of one motif briefly introduced by Poisson, and later by Duchamp in his Notes, namely *Vitriol*? According to Pernety’s dictionary, this substance is truly one of the essential and central symbols of the alchemical pursuit, thus it calls for lengthy clarification. Additionally, Pernety’s explanations provide even more information about those critical clues leading towards a better recognition of the real sources of Duchamp’s notorious and consistently misunderstood addiction to puns and anagrams:

VITRIOL. There is scarcely any subject which has so excited the Alchemists as common *Vitriol*. They take this to represent the First Matter of the Magisterium of the Philosophers, and one swears that there is nothing more likely to trick [*à tromper*] those who would take literally the words of the Alchemists than this Vitriol. Besides that, they are all of such a single mind in praising this mineral salt that it becomes difficult not to fall into the [verbal] traps which they set out for the ignorant [*les pièges qu'ils tendent aux ignorants*], or so it would appear. They do however warn everyone not to take their words at face value, rather to look for the underlying sense of those words, which is hidden by them [*sens qu'ils cachent*]. Accordingly, they have proposed the following enigma, in which the initial letter of each word, once joined together, yields *Vitriolum*: *Visitabis interiora terrae, rectificando invenies occultum lapidem, veram medicinam* ["When you journeyed down into the interior of the earth, it was by rectification that you found the Hidden Stone, the True Medicine"]. A few of them, in place of *occultum lapidem* [hidden stone], have instead put *oleum limpidum* [limpid oil].

As they say, the whole of the Great Work and its Matter is contained within these very words. Nevertheless, because this term, "Vitriol," is equivocal—because it could be taken to mean *all* the vitriols, whether natural or man-made, including extracts from pyrites or minerals or from vitriolic waters or metals, the Alchemists have taken pains particularly to apply the term to either Roman Vitriol or to the Hungarian kind, and the former belongs to Mars and the latter to Venus. Admittedly, Rupe Scissa writes that one must use the Roman Vitriol, but if he actually had needed to make use of it, and as if it were the same matter as that belonging to the Philosopher's Stone, would he have then called it by its correct name? Once, however, one realizes that the Alchemists *always* hide the real names of their materials, and with almost as much care as they conceal the rest [of their alchemical operations], one then necessarily becomes wary in the face of the apparent ingenuity of these Hermetic Authors.

Planiscampi has explained the sense of a kind of verbal riddle [*cette espèce de logogriph*] found in *Visitabis*, etc., meaning that the Vitriol of Gold is made with the Oil of Saturn, and some other Alchemists have understood that the Vitriol of Silver is made by the same means. According to this Hermetic Author, Vitriol of Gold is used to work up the red stage, whereas Vitriol of Silver is employed in producing the white one. Once these two Vitriols are joined together in due proportion, then one adds to them the Mercury of Gold, then passing the whole through the Fire of the True Alchemists. The final results will be, he says, in their virtues, powers and riches, like unto that magnificent Prince, for whom so many search and so few do actually encounter. . . .

You must not, therefore, take lightly all those [verbal] traps which the Hermetic Philosophers lay out before the ignorant [*ces pièges que les Philosophes tendent aux ignorants*]. . . . All those who wish to penetrate into the hidden sense [*le sens caché*] of these words, *Visitabis*, etc., must

study Nature and her procedures, and they must combine this knowledge with that which the Hermetic Authors write for them to study. Then you must observe whether that which they say about the Matter in the Great Work does indeed conform to that which Nature herself employs as a seed of metals. This seed is not literally meant in the sense of a remote seed or absent sperm [*semence éloignée*], but rather semen which is actually nearby, being of the very same matter from which it must be extracted. . . . The process is like modeling a man; you will have no success by just taking a head, an arm and the other members belonging to a perfect man. Likewise, the first *semence éloignée*, which is the one found in the elements, plants and animals, serving them as their nourishment, is not what you seek. Your goal is instead the semen belonging to the man, which is concocted within him by Nature herself.

Hermetic Philosophers assure us that the clearest explanation of the matter and the operation of the Great Work is that given by Hermes Trismegistus in his *Emerald Tablet* [and] to accompany this *Emerald Tablet* there is attached an alchemical emblem, the one which is enclosed within a double circle [fig. 6]. Between the two rings there have been inscribed the words which I have just explained, *Visitabis*, etc. . . . In general, one can say that the Philosophers' Green Vitriol [*le Vitriol vert des Philosophes*] represents their raw or uncooked Matter; their White Vitriol stands for the White Magisterium and the Red Vitriol, which is their "Colcotar," signifies their Sulphur, but only in its perfect red stage.¹¹²

Besides seemingly appreciative of the "ingenuity of these Hermetic Authors," unquestionably Duchamp himself was generally familiar with this mysterious, diversely manifested, "Vitriol des vrais Chymistes." As one reads in his Notes for the *Large Glass*—specifically in Note 37, written in 1913—Duchamp was interested in "the figuration of a possible," but "not as the opposite of an impossible." His conclusion was that, as he put it, "the possible [means or procedure?] represents only a physical 'mordant' (in the category of vitriol)."¹¹³ This statement is, of course, wholly (al)chemical in significance. "Mordants" are defined, in English as well as French, as chemical compounds, or caustic substances, used to form an insoluble compound, a tincture (*teinture*), which produces in the material to which it is applied a fixed color. Duchamp's Notes contains many other references to *teintures*. Therefore, the sense of this brief remark by Duchamp—recognizing that the essential means to "fix" the mystical *coniunctio* is wholly physical, and that it specifically requires Vitriol—is wholly in line with Pernety's more extended commentaries on the Alchemists' Vitriols.

It will similarly be recalled how Pernety described the manner that "la Nature emploie pour semence des métaux, non pas précisé comme semence éloignée, mais prochaine, et de quelle matière on doit l'extraire." Duchamp also makes much mention of the odd adjective "éloignée," as in Note 21, "Éloignement" (including a comment ostensibly "against military service").

In this case, the “distancing” is said to be of “each limb, from the heart to the other anatomical units”; the result is a “stripping,” in that that “each soldier can no longer dress up in a uniform.” “Then there is more alimentation [and] each *éloignée* becomes isolated.”¹¹⁴ Taken on face value, this remark is wholly confusing. Nevertheless, Poisson also makes brief mention of the distinctive “distancing” terminology in a way that, being briefer than Pernety’s lengthy commentary, makes more contextual sense of the adjective employed by Duchamp. “The three metals,” notes Poisson, “only represent the extended matter of Philosophical Stone [*la matière éloignée de la pierre*]; instead, the nearest matter [*la matière prochaine*] is Sulphur, Mercury, and also the Salt which is to be drawn from them.”¹¹⁵

In short, Duchamp seems to say that it is the Philosopher’s Stone, itself the perennially remote goal of the Alchemists, which turns out to be an as yet uncompound “distant matter” that was to be extracted by the Alchemist-Artist from Sulphur, which is “nearest,” and also taken from Mercury and Salt. Moreover, as Pernety said, the process is like the art of sculpture: “The [alchemical] process is like modeling a man; you will have no success by just taking a head, an arm and the other members belonging to a perfect man.” He also points out the utility underlying Duchamp’s notorious “non-sense.” According to Pernety, “once one realizes that the Alchemists hide the real names of their materials, and that they do so with almost as much care as they do the rest [of their alchemical operations], one then becomes wary in the face of the apparent ingenuity of these Hermetic Authors.” This also constitutes excellent advice for anyone so rash as to deal with Marcel Duchamp’s Notes.

Another case in point, which is based upon a similarly ingenious treatment by Duchamp of the adjective *éloignée*, is found in the evidently alchemical context of another Note. Because of its rather straightforward hermetic typology, I suppose this verbal relic to have been composed rather early in Duchamp’s career, either late in 1911 or early in 1912.¹¹⁶ Duchamp begins by discussing a kind of primary “*éclaircissement perspectif*”; accordingly, this initial stage of a “perspectival illumination” is to be painted “black and very light white.” This color combination, we are told, is a convention for rendering a light source, the kind “more distant than the sun (*plus éloignée que le soleil*).” For the Alchemists, the Sun was a sign of the arrival of Alchemical Gold, as Pernety among many others, says: “Chez les Chymistes [hermétiques] le Soleil est l’or vulgaire.”¹¹⁷

For Duchamp, additionally this primary black-to-white combination symbolically signifies “la valeur colorée de matière” of each component which eventually “has to disappear.” As signalled by Duchamp, one can in fact identify the composition of each significant bit of matter in later, or further developed, stages of their operation by their respective color values: white, black, red (*blanc, noir, vermillon*). In a slightly different order, these three

colors represent, of course, the canonic three stages or sequences of the alchemical Great Work: black, to white, to red. By these means, the components acquire, says Duchamp, 1. a Name [*un nom*]; 2. a Chemical Composition [*une composition chimique, mélange, qui sera celle du mélange des couleurs*]; 3. a Visual Appearance, broken down into two significations: “1° colorée et 2° formation moléculaire.” For Duchamp, these are all signs of certain “schematic and conventionalized procedures” (*procédés schématiques et conventionnels*), and these traditional schemata point to the fourth component, their intrinsic “properties”: “IV. des propriétés.”¹¹⁸

In order to make stick the controversial title of “Alchemist of the Avant-Garde,” it seems one must indefatigably provide further contextual analyses of Duchamp’s Notes. It seems equally obligatory to remind the reader that this effort presents a seemingly endless interpretive task. It is, additionally, largely pointless, that is, once the universal *contexte hermétique* is granted. As Albert Poisson pointed out to us over a century ago, “une fois la théorie alchimique [est] connue, possédant la clef des principaux symboles, même vous pourrez hardiment entreprendre la lecture.” Nonetheless, for those (*même vous*) who might wish to pursue the tedious interpretive enterprise on their own, certain Notes of seemingly peripheral significance may now be cited (and recommended for your closer inspection) in a footnote.¹¹⁹

A more formally developed Futurist type of painting by Duchamp directly followed the summary oil sketch for the *Coffee Mill* (MD-61). The new look in his painting perhaps recalls Poisson’s comment that in correct hermetic thought “ne sont donc que des abstractions.” No matter; Duchamp’s stylistic departure rather suddenly appears in a canvas dating from December 1911 (MD-62), which is inscribed on the back: “Marcel Duchamp nu (équisse): Jeune homme triste dans un train.”¹²⁰ As one initially gathers from this laconic statement, we have before us a sketch for the self-portrait of a stripped Marcel, and the environmental setting for this naked and sad young man is in a train. Little else is known about the enigmatic content of this Futurist composition, other than what Marcel recounted to Pierre Cabanne in 1966, and then he related this image to the much better known painting of the *Nude Descending a Staircase* (MD-64). According to Cabanne’s transcription of another bit of seeming artistic disinformation by Duchamp,

In October 1911, I was [already] thinking about doing the *Sad Young Man on a Train*. First there is the idea of the movement of the train, and then that of the sad young man, who is in a corridor and moving about, being displaced [*qui se déplace*]; thus there are two parallel movements which [laterally?] correspond to each other. Then [additionally], there is the distortion of the simple-minded chap [*bonhomme*]: I had called this a parallelism of elements [*le parallélisme élémentaire*]. It represented [moreover] a decomposition of form [*décomposition formelle*]; meaning into thin linear sheets [*en lamelles linéaires*], which follow one another like [elementary] parallels and

so deform the object. The object is completely stretched out [*étendu*], as if made elastic [*élastisé*]. The lines follow each other in parallels, while changing subtly to form the movement, or the form in question. I also used this procedure in the *Nude Descending a Staircase*. The *Sad Young Man on a Train* already showed my intention of introducing humor into the picture, or, in any case, the humor of a *jeu des mots*: *triste, train*. I think it was Apollinaire who called the picture “Melancholy in a Train.” The young man is sad because there is the train that comes afterward. “Tr” [as a prefix] is very important. . . . It was autobiographical, about a trip I took from Paris to Rouen, alone in a compartment. My pipe was there to identify me.¹²¹

We may take this rather convoluted statement not to be altogether faithful to the picture’s original intention. In this case, the *Sad Young Man on a Train* should be considered to be more symbolic in intention than Duchamp allowed half a century after the fact. In the first place, the apparently devious artist did not clarify the principal point that the composition involves a single figure, colored in various golden tints, who is seen in, as it were, successive stages or passages. This interpretation follows one advanced many years ago by Lawrence J. Steefel, who then observed how Duchamp’s figure seems “to be undergoing transformation, from one status to another, but it is still in passage.”¹²² Even earlier, Robert Lebel had observed how, besides being a wholly painterly term, “the dialectical notion of *passage*, associated with that of [alchemical] *transmutation*, has a profound significance for Duchamp.”¹²³

In any event, Duchamp’s formally decomposed subject, the pipe-smoking Artist himself (and very possibly masturbating, as we shall soon see), certainly does increase in relative illumination, and so perhaps enlightenment, as he advances forward, in parallel or mirrorlike sequences, from each edge of the canvas towards a kind of orgasmic culmination in its center. His linearized and sequentially repeated *figure* (à la Dumouchel) becomes brightest in the very center of the composition, and therefore the most appropriate Duchampian term for that particularly conspicuous kind of brightening is *épanouissement* (a key term appearing in the Notes for the *Large Glass*, further analyzed in chapter 5). Moreover, in the painting there appear to be altogether seven stages, or passages, leading to Duchamp’s figurative *épanouissement*: six on the left side and, in mirror imagery, six to the right; the shared seventh is the central, crucial and most enlightened, figure: Marcel himself.

Duchamp obviously made much of his choice of a word (or words) beginning with “tr. . .”; as he said, his point was “the humor of a *jeu des mots* [pun]: *triste, train*.” In French, “*être en train*,” besides referring to one’s placement within certain vehicles rolling along upon a *chemin de fer*, means to be in the midst of some transitive action; one of those actions just might comprise, as Lebel suggested, a transmutative and metaphorical character. In the

more popular slang sense, the phrase “*être en train*” signifies an early stage of intoxication (*ivresse*); it additionally means that one who is “in train” happens to be a person rather well informed about or privy to some highly specialized information, often of a secretive nature. In that case, the phrase is exactly synonymous with *être dans la note*; *être à la hauteur*. That, too, suggests a highly privileged state of intellectual enlightenment, a highly desirable condition attained only after a lengthy initiation. This state is referred to in the old alchemical literature as the *aureo apprehensio* (golden apprehension, or self-realization). For the Alchemists, this “is a train that comes afterward,” but only if one is favored by rare hermetic chance. When it fails to arrive, one therefore, naturally, becomes *triste*.

As it turns out, Pernety’s *Dictionnaire* lists no less than thirty-five words that begin with “tr. . .” In the chronological context of Duchamp’s *Sad Young Man on a Train*, a work following directly upon the conceptual heels of his alchemical rendering of *Le Printemps* (fig. 3), we may assume the most significant entry to be this one, referring to the physical heart of alchemical endeavor: “TRANSMUTATION (Physical).” According to Pernety,

Transmutation (Physique) is the changing or alteration of the form of a body, in such a way that it no longer resembles that which it had been beforehand and whereby it acquires another kind of being, a being transformed as much in the interior as in the exterior, such as it is transformed by another color, another virtue, another property.

That description does broadly correspond to Duchamp’s description of himself in his painting as visually appearing in “two parallel movements which correspond to each other. Then, there is the distortion of the simple-minded chap: I had called this a parallelism of elements [and] it represented a decomposition of form.” However that may be, Duchamp’s self-portrait does visually present us with altogether seven stages, or *passages*, leading to his figurative *épanouissement*, and Pernety actually concluded his explanation of *Transmutation (Physique)* by saying that, “every transmutation is done by degrees; generally *seven* of these are enumerated, and all the others appended by the Alchemists ought to be reduced to just these seven; these are: Calcination, Sublimation, Solution, Putrefaction, Distillation, Coagulation and Tincture.”¹²⁴

Duchamp additionally made much to-do about his thoroughly baffling “parallelism of elements [*le parallélisme élémentaire*].” For him, literally the process additionally “represented a decomposition of form [*décomposition formelle*]; meaning into thin linear sheets [*en lamelles linéaires*].” It was these decomposed linearities which, says Duchamp, “follow one another like parallels and so deform the object.” Unaided, there is no way any art historian can make much useful sense out of all this—except to say, of course, that it seems like a succinctly stated verbal formula for contemporary Futurist stylistic features.

Nonetheless, Pernety becomes once again a useful textual source allowing for a Poisson-like decipherment of Duchamp's *texte obscure*. As we are now privileged to learn from Pernety, originally it was the Alchemists who routinely practised a "decomposition" of elements, or basic forms. "Décomposition," as designated by Pernety, involves

a separation of the components of a compound; it is carried out in order to discover their underlying principles. Properly speaking, this represents analysis. However, when one is specifically pursuing Hermetic Philosophy, "Decomposition" only signifies the reduction of the body of the Gold of the Wise to its *materia prima* state, and that is done through "Dissolution," that is, by means of the Mercury of the Philosophers.

And likewise, once we look up Pernety's article dealing with "DISSOLUTION," we uncover what appears to have been the real meaning of Duchamp's *parallélisme élémentaire*. According to the way Pernety defined "Dissolution,"

The Alchemical Philosophers do not understand by this term the simple reduction of a hard body into a liquid, rather "Dissolution" means to them the reduction of a body into its *materia prima*; this means that they reduce it to its elementary, rather than elemental [or "parallel"], principles. This is because they never intend to reduce Gold into, for example, Air, Water, Earth, or Air, rather into Mercury, which is a compound of these four Elements. . . . The whole course of their Opus, as they say, rests upon Dissolution and Coagulation, which procedures are to be repeated more than once.¹²⁵

This endlessly reiterated decompositional and dissolutorial alchemical process properly includes, just as stated in Duchamp's analysis, a linearization. According to Pernety's complementary explanation of the "LINEAR (WAY),"

The Hermetic Philosophers often employ these terms [*Linéaire (Voie)*] in their writings in order to expound the simplicity of the procedures belonging to the Great Work. They say that it is the Linear Way of Nature which must be followed; this means that one must never amuse oneself with calcinations, sublimations, distillations, and all the other operations belonging to the vulgar kind of Alchemy; instead one must operate just as Nature does, without all those [redundant] multiplications of furnaces and vessels.¹²⁶

Perhaps all this dated alchemical terminology seems much too *récherché* to you. Instead, perhaps you have read, and even agreed with, those scholars who say that this apparent self-portrait of the naked young Marcel in a train really represents him masturbating. If you believe that, then you may also

believe there can be no possible alchemical interpretation. One supporter of the narrowly onanistic explanation was Joseph Masheck, observing that (presumably with a straight face) this “young man may well be masturbating: his penis occupies a prominent place in the center of this scene on a jouncing train; it [*son membre-dard*] bends lightly upward on its downward angled axis and an arc of [*spermatic*] dots trails down from the organ.”¹²⁷ In fact, the recent report of a laboratory analysis, performed by none other than the ever resourceful FBI, of a much later work by Duchamp—*Paysage fautif* (1946)—has actually scientifically determined that the artist once ejaculated upon his very own work! The “Faulty Landscape” was inserted into a later edition (no. XII) of the *Boite en valise*, and this was sent in 1946 to María Martins, Duchamp’s lover of the moment.¹²⁸ In another edition (no. XIII) of that same conglomerate, Duchamp added another original, *Tifs*, his hair clippings stuck to paper. Now that we have his DNA bank, a modern Prometheus (or Dr. Frankenstein) might wish to reconstruct Marcel Duchamp. Or perhaps not. . . .

Just in the way he purportedly portrayed himself in his *Sad Young Man in a Train*, we now know that later, in 1946 at least, Duchamp certainly masturbated for his “Faulty Landscape,” itself nought but a spermatic splatter. My Spanish colleague, Juan Antonio Ramírez, drily notes that, once again, we are confronted by “una obra pintada mediante un orgasmo (literal) masturbatorio.”¹²⁹ In which case, that is should he bring his autonomous amorous labors to their proper conclusion, then of course our artist-masturbator will soon produce a great splatter of sperm, or “seed.” If so, then here is another weird kind of proof for Duchamp’s specifically alchemical activities. We must so conclude because, besides various other hermetic experts discussing at length the bizarre spermatic motif, Pernety often mentioned this particular spermy entry, *semence*, and he eventually got around to treating it at some length:

SEMEN. Most simply said, according to alchemical terminology this word [*semence*] signifies the Sulphur of the Philosophers. But while they may speak about a “semen of metals,” what they really understand by this term is their Mercury, and sometimes even the part of the Magisterium when the sulphur is brought to the [intermediate] white stage. When Alchemical Adepts speak in general terms about a kind of semen belonging to common metals, this is a material they intuit to have been formed within the very bowels of the earth. Then the semen to which they refer represents a vapor formed due to a union of elements dragged down into the earth by the actions of air and water, and there to be sublimated, and then brought back again to the surface by the action of the internal fire. This vapor acquires a kind of corporeal form, turning unctuous or viscous [*onctueuse ou visqueuse*], and as it sublimes this viscous [*spermy*] stuff sticks to the sulphur it brings up with it, and

so the [spermy] vapor forms more or less perfect metals, depending upon the degree of purity belonging to the sulphur and of its matrix. For more on this subject, see the *Twelve Treatises* by Cosmopolitus and the section on “General Physics” found at the beginning of my *Revelations from the Greek and Egyptian Fables*.¹³⁰

In order to wrinkle out further the real significance of Duchamp’s *Paysage fautif* (1946), which the doughty FBI has since proven an onanistic daub, we should know that Pernety also emphatically notes that “*semen* must not be confused with *sperm*.” According to Pernety,

Sperme is the semen produced by individuals belonging to the three kingdoms: animal, vegetable and mineral. As produced in the first, by animals, it is a white, wet and sticky composition [*substance blanche, humide, onctueuse*] made from the purest parts of the blood. . . . One shouldn’t confuse sperm with semen, for one is merely the vehicle for the other. Sperm is the generative seed-particle and so it represents the [theoretical] principle lying behind things [*le grain génératif et le principe des choses*]. Because of this revelation, the Hermetic Philosophers gave the name of “metallic sperm” [*sperme des métaux*] to [masculine] sulphur, and they call [feminine] mercury “semen.” *Sperme féminin* is the Philosopher’s Quicksilver. *Sperme masculin* is the Sulphur of the Wise, the fixed particle maturing within the female sperm and which in turn works upon it in order to produce the Philosophical Child, he who is more vigorous and excellent than are his parents.¹³¹

Further contextual proof for Masheck’s seemingly egregious masturbation thesis may now be presented, actually reiterated. As we shall soon see in chapter 5, Walter Arensberg, since 1915 the putative American patron of Duchamp’s *Large Glass* (figs. 1, 11), had himself also expounded upon the *outré* topic of alchemical semen. As Arensberg probably told Duchamp, or, as I think just as likely, as Duchamp had first told him:

And since the form of putrefaction was the form in which the metal united with the materia prima, as maternal, for the purpose of rebirth, the putrefied form was equated with *semen*; the entrance of the *semen* into the alchemical retort or furnace was equated with the divine marriage; the retort or furnace itself was equated with the maternal womb; and the cooking of the metal in the retort or furnace was equated with gestation.¹³²

And then Arensberg backed up his assertion with a timely quotation taken (and so cited) from an old alchemical handbook: “Characteristic expression of sexual procreation and incest in reference to the alchemical procedure appear in the following quotations from the *New Light of Alchemy*, published

under the name of Michael Sendivogius." As quoted by Arensberg, the two quintessential spermatic citations are:

(1) The next instruction however is: "Take the living male and the living female and join them in order that they may project a *sperm* for the procreation of a fruit according to their kind." Again: "You must produce one thing out of two by natural generation." (2) ". . . that if gold emits its *seed* into steel, the latter conceives and brings forth a son much nobler than the father; that if this son fertilizes his own mother, her womb becomes "a thousand times better fitted to produce excellent fruit."¹³³

In short, alchemical *sperme* was familiar within the avant-garde circles Duchamp frequented, at least those flourishing in New York following his arrival early in 1915.

As Duchamp also revealed to Cabanne in 1966, it was in his *Sad Young Man in a Train* that he first employed, in December 1911, the kind of anomalous procedure that was immediately to be reiterated in his famous (or infamous) painting of a certain *Nude Descending a Staircase* (MD-64). As we should suspect, if only on the basis of evidence for distinctive hermetic content now revealed to have been concealed in some contemporaneous paintings made by Duchamp, *ce procédé* probably was largely alchemical in character.

The first physical anticipation of the famous painting is a preparatory pencil sketch that is customarily dated to November or December 1911 (MD-60).¹³⁴ An inscription—"Encore à cet astre / (Jules Laforgue)" placed to the right and bottom of the page—documents the literary source of the drawing, and thus the two paintings subsequently derived from it. Duchamp's literary *locus classicus* has already been subjected to a strictly hermetic analysis in chapter 2. To the contrary of the celebrated painting following, Duchamp's *équisse* reveals a nude who is ascending, certainly not descending, a probably symbolic *escalier*. As was pointed out in 1976 by Lawrence J. Steefel, "the drawing actually contains three clearly identifiable figures, the only ascending figure being obviously male and [also] clothed." As he further observes,

Reading from left to right as we face the page, there is *figure 1*, a female personage with legs and trunk; *figure 2* is a male personage with masked face and right shoulder, arm and hand, whose crenelated fingers cover and/or form the mouth of the mask; and *figure 3*, an ascending, goateed, male figure who pauses on a staircase to look back and out through a barred window. . . . The [three] personages are juxtaposed, rather than unified, into a single, coherent perspective. . . . There is, however, a fourth figure, *figure 4*. . . . This fourth figure, like the ascending figure, is seen from the rear and lies in the interval between the female figure and the central mass.¹³⁵

For our purposes, the most important interpretive clue is contained within the inscription citing a particular poem by Jules Laforgue; that verse, “Encore à cet astre,” which we have already subjected to an extensive alchemical analysis in chapter 2, now serves to demonstrate that the narrative element of Duchamp’s self-acknowledged literary model must have likewise dealt with a specifically hermetic scenario. That interpretive effort seemed worth the bother because, according to Duchamp’s own admission, this was the poem that provided the immediate inspiration or textual source for *two* painted versions of the *Nude Descending the Staircase* (1911–1912: MD-63, MD-64). Granted the universally acknowledged art-historical significance of Duchamp’s canvas, the real nature of its textual grounding in Laforgue’s verses deserves to be subjected to this kind of intense contextual scrutiny.

As we discovered in chapter 2, first in Laforgue’s poem there appears an introductory theme of upward yearning towards a metaphorical state of elevated consciousness and golden purity symbolized by the Sun. Laforgue tells us that the path to the seeker’s astral goal is, alas, frustrated, for the Sun’s golden rays are not enabled to shine downwards, below into a place, like Plato’s cave, which is populated by an ignorant and materialist mob brusquely rejecting the generous offer of spiritual transmutation from on high. The end result is that hermetic union, a generously proffered *coniunctio oppositorum* between that which is above and that which is below, fails miserably. In this failed act of transmutation, the physical sign of Alchemists’ Gold ends up only a deceitful counterfeit, “nothing but a flamboyant, shimmering froth.”

None of this imagery however represents original material, for it is very much in line with standard, late nineteenth-century interpretations of the healing, spiritual content of medieval Alchemy. As one read then, for instance in A. E. Hitchcock’s *Remarks on Alchemy and the Alchemists* (1857), “The real object [of Alchemy] was the perfection, or at least the improvement of man. According to this theory, such perfection lies in a certain unity, a living sense of the unity of the human with the Divine Nature, the attainment of which I can liken to nothing so well as to the experience known in religion as New Birth.”¹³⁶ Likewise, this notion of New Birth was certainly a central issue of the fin de siècle mystics, who accordingly interpreted Alchemy to suit their own purposes, and generally these were, says Serge Hutin, “to insure that all beings moved rapidly toward a higher state, to regenerate imperfect beings, to change base or ‘leprous’ metals into gold, so to restore the sick to health. The [modern] alchemist would become a true Superman, the regenerator of the world.”¹³⁷ As also mentioned in chapter 1, world regeneration was also the program announced for avant-garde artists since the Symbolist era.

For Duchamp, the next stage after his Laforguean preparatory sketch was manifested in two oil paintings, completed immediately following (1911–

1912: MD-63, MD-64). In these two oils he was to change drastically both the identity of the central figure and its actions. At this stage the figure was changed into a female, but also one who is stripped of her clothing while she descends into a metaphorical limbo. This fundamental metamorphosis first appears in an oil sketch on cardboard, *Nu descendant un Escalier n° 1*, measuring a little less than a meter in height (MD-63).¹³⁸ As in the preceding painting of *Sad Young Man in a Train* (MD-62), Duchamp's employs a color palette limited to a series of chromatic variation on the appearances of metallic, distinctly golden planes and parabolics. To the contrary of the much better known final version (MD-64), the composition of *Nu descendant un Escalier n° 1* is bordered by two, pitch-black, vertical strips. Since this putrefactive motif (as it may be called) bears absolutely no relation to the proportions of the final version, we may assume its anomalous presence to conform to motives of symbolic rather than formal significance.¹³⁹

Duchamp's explanations, as usual, avoid any meaningful reference to possible underlying content; he merely stated that he was very much attracted by "the problem of motion in painting." The method he said he employed was, however, what he called *démultiplication*. One may now ask, does this quirky process of demultiplication, as in the case (just examined) of his *décomposition*, represent only real motion, or does it instead also embrace the idea of a strictly metaphorical motion, or even of metamorphosis? The artist only chose to recall this:

quite interested in the problem of motion in painting, I made several sketches on that theme. In the first [oil] study of the *Nude Descending a Staircase* you can see a number of anatomical parts of the nude which are repeated in several static positions of the moving body. Compared to the final version, this is only a rough sketch in my search for a technique to treat the subject of motion. It was done in the last months of 1911 [by] using the method of *démultiplication* of the movement which was to be my main preoccupation during the first part of 1912.¹⁴⁰

In this instance however, Duchamp also admitted to what might be called by the art historian an "iconographic source." In effect he says that his two paintings referred to

the convergence in my mind of various interests, among which the cinema, still in its infancy, and the separation of static positions [seen] in the photo-chronographs of [Jules] Marey in France. . . . Painted as it is in severe metallic [or even "golden"] colors, the anatomical nude does not exist, or at least cannot be seen, since I had discarded completely the naturalistic appearance of a nude, keeping only the abstract

lines of some twenty different static positions in the successive action of descending.¹⁴¹

There is, it turns out, another way of elucidating the problem. Even these apparently narrowly formalistic explanations provided by Duchamp demonstrably belong to a broader intellectual milieu. At this time in France there had recently appeared a well-known metaphysical interpretation of the idea of “abstract and simple” imagery representing “movement in general.” Moreover, this statement was, just like Duchamp’s explanations, directly based on the simile of “cinematographic snapshots.” As one reads in Henri Bergson’s *L’Évolution Créatrice* (1907),

Suppose we wish to portray on a screen a living picture, [then] there is a way of proceeding[.]: it is to take a series of snapshots of the [subject] and to throw these instantaneous views on the screen so they replace each other rapidly. This is what the cinematograph does. . . . In order that these pictures may be animated, there must be movement somehow. . . . The process then consists of extracting from all the movements peculiar to the figure an impersonal movement, abstract and simple, movement in general, so to speak. Such is the contrivance of the cinematograph. And such is that of our knowledge. The mechanism of our ordinary knowledge is of a cinematographical kind . . . the cinematographical character of our knowledge of things is due to the kaleidoscopic character of our adaptation to them.¹⁴²

Returning to the strictly internal evidence of Duchamp’s *Nu descendant un Escalier n° 1* (MD-63), we find, comparing it to its preparatory sketch (MD-60), that four significant innovations have now appeared. These new elements are: 1. a woman; 2. one who is now shown to be *naked*, or figuratively stripped; 3. a possibly symbolically intended enframement in *black*; 4. a probably equally symbolic act of *descent*. The first motif may be simply explained as referring once again to the Alchemists’ *principe femelle*, which they, in turn, symbolically represented as liquid Mercury. In this case, the second motif is a given, since Mercury always had to be, according to many alchemical texts already quoted, stripped, or purified. In this hypothetical alchemical context, then why would Duchamp have placed a stripped figure of Mercury within a black border? According to Pernety, simply put, “Noircir. Cuire la matière, pour la faire dissoudre et putréfier”; put otherwise, “To make Black means cooking the matter in order to make it dissolve and putrefy.”¹⁴³

Still, Duchamp’s rigid borders seem to be “blacker than black itself”; in this case, their meaning becomes the one described by Pernety:

This [*Noir plus noir que le Noir même*] is the Matter of the Great Work when it is in a state of Putrefaction, at which time it resembles molten pitch. This kind of Blackness is only spoken of in relation to the second

operation, where the fixed [Sulphur] becomes dissolved due to the action of the volatile [Mercury]. In the Hermetic Fables Blackness is always indicative of this Putrefaction, which means the same as sorrow, sadness, and often death. . . . The Alchemists also call this the Key to the Work [*la clef de l'oeuvre*]; therefore, it is the first worthwhile demonstrative sign of the *Opus Magnum*. As Flamel says, this is because if you do not blacken the Matter, you will never be able to whiten: if, at the very outset, you do not see this Blackening, and before [the appearance of] any other particular color, then you must recognize that you have failed in your Great Work, and that you must then begin it all over again [*et qu'il te faut recommencer*].¹⁴⁴

The painting with the black borders was in effect Duchamp's second operation, another performed upon the latent alchemical content of Laforgue's *Encore à cet astre*. By adding two formally incongruous black strips, Duchamp probably meant to signify what Pernety called "la clef de l'oeuvre," particularly its "premier Signe démonstratif." Nonetheless, blackest Putrefaction was also commonly held by the Alchemists to prefigure a tragic emotional reaction: "le deuil, la tristesse, et souvent la mort." These seemingly disparate ideas—"sorrow, sadness, and often death itself," representing equally an optimistic initial sign of the Work in progress as well a portent of grief and decease—uniquely coexist on the same page in Pernety's *Dictionnaire*. For that reason, it is mainly, perhaps uniquely, this standard text that apparently proves a previous contention, namely that Duchamp had read into Laforgue's pessimistic verse a poetic situation of "sorrow and sadness, often [spiritual] death" due to a failure (*faillite*) of conjunction and transmutation.

This identification also provides the most plausible textual context for Duchamp's bizarre invention of a certain active noun, otherwise unknown in modern French: *Démultiplication*, obviously meaning to "un-multiply" or, likewise, to "fail to multiply." Again, Pernety explains the hidden ideological root of a reversed action bizarrely verbalized by Duchamp:

MULTIPLICATION. This [*Multiplication*] is a certain operation of the Great Work by which the Powder of Projection is multiplied, and this powder may be so multiplied, and either in quantity or in quality, into infinity, and all according to the pleasure of the Artist [*à l'infini, selon le bon plaisir de l'Artiste*]. Multiplication consists of re-commencing various operations already completed, but this time it is done with exalted and perfected materials—rather than with raw materials, as formerly. One Hermetic Philosopher says that the entire secret [of the Great Work] consists of a physical dissolution into Mercury, including a reduction into its *materia prima*. To achieve this effect, the Philosophers take the matter cooked and prepared by Nature; this they reduce to its *materia prima*, or the Philosophical Mercury from which it was originally drawn. In order to acquire a full understanding of this operation it must

be observed by you that every solution is made by fitness and expediency, and that anything which dissolves the Moon likewise dissolves the Sun.¹⁴⁵

Therefore, if Duchamp's Great Work is said by him to be "demultiplied," then this specifically means that, "selon le bon plaisir de l'Artiste," his calculated choice was not to multiply, in either quantity or in quality, his nude *principe femelle*, meaning Philosophical Mercury. In strictly alchemical terminology, to "demultiply" means to employ raw, rather than exalted, materials; the act is itself wholly reductive versus expansive. He returns, by means of demultiplication, to the First Principles, to the *material prima* itself.

This retrogressive notion is also wholly in line with another decision made by Duchamp, namely to have his provocative nude descend rather than ascend, as formerly. As with nearly everything else apparently concealed in his *Nude Descending a Staircase*, the underlying idea of reversed locomotion represents yet another hermetic commonplace. The idea of emotionalized hermetic descent is also completely in accord with the pessimistic picture drawn by Jules Laforgue in *Encore à cet astre*. As defined by various articles contained in the standard *Lexicon Alchemiae* (1612) composed by Martinus Rulandus, the complementary meanings embraced by Duchamp's symbolic descent at once include themes of downward movement, a loss of status or prestige, and also corporeal flux, dissolution, and decomposition. These notions are discussed sequentially by Rulandus in five articles.

According to the first, "DESCENSIO is the name of a process whereby a thing becomes less noble, as when the Sun becomes Mercury. Afterwards we call it falling and refining, when the vapor again descends, so that the water drawn from the earth is again poured upon it. The sediment remains in the glass." Secondly comes "DESCENSIO [which] is a process by which the subtler parts of any matter are caused to settle, or go down. It is warm or cold. The Warm Descension (vulgarly, Distillation by Descension) is the distillation in an inverted vase of the liquor dissolved out of bodies." Rulandus's third descending point is "DESCENSIO FRIGIDA—the Cold Descension is that process by which the liquor descends, being resolved in cold. This is Deliquefaction or Filtration." Fourth is "DESCENDUM, or *Descensorium*, [which] is an Oven or Chemical Furnace into which liquid goes down when separated from the gross matter." Finally, we have "DESCENDERE [which] is to Liquefy, or to Melt altogether."¹⁴⁶

The final point to consider is the matter of the physical mode of the metaphorical descent by Duchamp's nude, which is by means of *un escalier*. This is the same word used in French for either stairs or a staircase, and it has its root in the Latin *scala*, *scalae*, meaning either stairs or ladder. A ladder in French is an *échelle*, derived from *échelon* (step); accordingly, Poisson cites

in his bibliography (“Table des traités”) a certain anonymous, but well-known alchemical treatise called the *Scala philosophorum* (*l'Échelle des philosophes*).¹⁴⁷ *Échelle* is a word which Pernety says might represent “the material of the Work in the black-most-black stage, or in perfect putrefaction.”¹⁴⁸ Additionally, if (as we must believe; see figs 3, 4) Duchamp was already familiar with the fifteen celebrated wordless alchemical engravings in the *Mutus Liber*, he would have had at hand two complementary illustrations of the Ladder of Alchemical Knowledge (fig. 7). As strikingly portrayed in this “Mute Book,” these *scalae* are the fundamental symbols for both the suspenseful Initiation and the grand culmination of the Great Work. It is however only the first plate, revealing the intention of all that is forthcoming, that bears any inscription. In this case, the central motif is shown to be “Jacob’s Ladder.”

As presently set up in the *Mutus Liber* against dark and distant heavens (fig. 7), this symbolic device becomes a potential vehicle by which to arrive at superior enlightenment; as such, it illustrates a truly ancient concept, the Great Chain of Being.¹⁴⁹ Two heavenly messengers, winged angels, vigorously ascend and descend a symbolic *scala sapientiae philosophorum* while they earnestly blow oversized trumpets in order to rouse the unconscious figure of a neglectful and dreaming patriarch slumped in shadowy slumbers upon the stoney ground. In the kind of schoolboy Latin any *lycée* graduate (namely Marcel Duchamp) could read, a floridly inscribed motto tells us that we have placed before us: “MUTUS LIBER, in quo tamen tota Philosophia hermetica figuris hieroglyphicis depingitur, ter optimo maximo Deo misericordii consecratus, solisque filiis artis dedicatus.” In short, this means that we are consulting “The Wordless Book, in which, nonetheless, the entirety of Hermetic Philosophy has been pictured by means of hieroglyphical figures (sacred to God: the merciful, thrice best, and greatest), and these are uniquely dedicated to the Sons of Art.” In sum, what appears to represent intrinsically the most plausible and most internally consistent narrative scenario for a pictorial series culminating in Duchamp’s best known painting, the *Nude Descending a Staircase*, must now be acknowledged to be one written long before by the Alchemists.

Although Duchamp was involved with the physical execution of the *Large Glass* in New York between 1915 and 1923, some memoranda dealing with the project seem to date as early as July 1912. One important series of paintings occupied his attentions just before he embarked upon that obsessive, decade-long involvement with the *Large Glass* (fig. 1), a work which admittedly looks nothing like anything preceding it. These four, formally homogeneous works—two pencil sketches, a gouache, and an oil, and all rampantly abstract in the reigning Cubist-Futurist manner—were executed in Neuilly between March and May, 1912. The curious subject matter exclusively linking all four pieces belongs to the imaginary realm of certain “Kings and Queens.” As inscribed by Duchamp, respectively these pictures are called:

Deux Nus: un fort et un vite (pencil: MD-67); *Le Roi et la Reine traversés par des Nus vites* (pencil: MD: 68); *Le Roi et la Reine traversés par des Nus en vitesse* (gouache: MD-69); *Le Roi et la Reine entourés de Nus vites* (oil: MD-70).¹⁵⁰ Since the last work, an oil painting of “The King and the Queen Encircled by Swift Nudes,” was in fact painted on the back of the canvas bearing Duchamp’s evidently symbolic rendering of *Paradise* (MD-40), one supposes that this, too, might yield an analogous and/or complementary symbolic interpretation.¹⁵¹

Nonetheless, Duchamp’s own explanations of these works (as given in a 1964 lecture, “Apropos of Myself”) are typically bland, obliquely put, and rather evasive. As he then explained, or failed to explain,

Executed immediately following the *Nude Descending a Staircase*, this oil [MD-70] represents the development of the same idea. The title, “King and Queen,” was once again borrowed from chess, but the players of 1911, my two brothers [in *Joueurs d’Échecs*: MD-57], have been eliminated and were replaced by the chess-pieces of the King and Queen. The swift nudes are a flight of imagination introduced to satisfy my preoccupation with movement, ever-present in this painting. Unfortunately full of cracks, this picture has not stood time as well as my other paintings. It concerns the theme of motion in a frame of static entities. In other words, the static [or fixed] entities are represented by the King and the Queen, while the [volatile] “*nus vites*” are based on the theme of motion.¹⁵²

Omitting the chess references, much the same thing was said two years later in the Cabanne interviews:

The formula of “*parallélisme*” I mentioned [in connection with the *Sad Young Man in a Train*: MD-62] also played its role in the picture which followed, *The King and the Queen Surrounded by Swift Nudes*, the execution of which excited me even more than that of the *Nude Descending a Staircase*—but it did not create the same [public] impact as the preceding work. I don’t know why [so suggesting that an “impact” was desired]. . . . A drawing [MD-68] represented a first attempt at *The King and The Queen*; it was the same idea, and it was done around June 1912; the painting [MD-70] was done in July and August. Afterward, I left for Munich.

Asked by Cabanne if there was “a tie between the *Nude Descending a Staircase* and [the drawing of] *The King and Queen Traversed by Swift Nudes*,” Duchamp’s reply was that there was

very little [connection between them], but even so it was the very same form of thought [*c’était quand même la même forme de pensée*], if you like.

The obvious distinction was the introduction of [motifs of] the strong nude and the swift nude [*nu fort et nu vite*]. Perhaps it was a bit Futurist, because by then I did know about the Futurists, and I did change it into a King and Queen. There was the strong nude, who was the King; as for the swift nudes, there were [represented by] the trails [*trainées*] crisscrossing the painting, which have no anatomical detail, no more than before.

Duchamp concluded his remarks by admitting that his odd title represented, “a literary game. The word ‘*vite*’ had been used in sports: if a man was ‘*vite*,’ he ran well. This amused me—*Ça m’amusait*. ‘*Vite*’ is less involved with literature than ‘*en vitesse*.’” Questioned about the 1910 painting of *Paradise* (MD-40) on the other side of his canvas, Duchamp said that he had deliberately (*volontairement*) done so, but only “because I did not have any other [prepared canvases], and I was not enough of a technician to know that it would crack as it has.”¹⁵³ Perhaps one finds that technical *échappatoire* (ruse) a bit difficult to swallow.

As pure esoterica, “the same form of thought” cited by Duchamp—including his “formula of *parallélisme*” and “the theme of motion in a framework of static entities”—would have been familiar years before to any serious student of Éliphas Lévi. In his *L'Histoire de la Magie*, that wonderful compendium of just about everything later belonging to the Esoteric Tradition, the celebrated French Magus observed that:

There is a composite agent, a natural and divine agent, at once corporeal and spiritual, a universal plastic mediator, a common receptacle for vibrations of movement and images of form, a fluid and a force which may be called, in a sense at least, the imagination of Nature. By the mediation of this force [*cette puissance*] every apparatus is in secret communication together. . . . The universal principle of life is a substantial movement, or a substance which is eternally and essentially moved and mover, invisible and impalpable, in a volatile state and manifesting materially when it becomes fixed by the phenomena of polarization. . . . Its manifestations in the world of form are subject to eternal mutations by the perpetuity of movement [etc.].¹⁵⁴

Nonetheless, given the overt identifications provided by Duchamp's titles, the basis of these four images in traditional alchemical literature (versus just chess) is, if anything, even more easily established than was the case with some previously examined works. In short, and by Duchamp's own admission, “c'était quand même la même forme de pensée.”

As before, the procedure used to identify the real significance of “the same form of thought” is very simple, meaning mostly lexical in nature. In this case, the main clues, or *motifs-à-clef*, are: *Roi*, *Reine*, *Nu-Nudité*, *Fort-Force*, *Traverses*, and the like. Making cross-references between Pernety and Poisson, apparently supplying all that Duchamp needed to know about rudimentary

royal alchemical symbolism at this time (1910–1912) and including its standard terminology, we shall find all the necessary answers regarding Duchamp's most likely meanings solely provided by these two authors. Concerning the strictly alchemical King, the *Dictionnaire Mytho-Hermétique* conveniently explains that,

Among the Hermetic Philosophers this name [Roi] has different meanings. Most commonly, the King is understood to be the Sulphur of the Wise, or Philosophical Gold to make a distinction from vulgar gold; the latter is called the King of Metals. Occasionally however, the Alchemists take the name of King to stand for the Matter which must immediately enter into the preparation of Mercury; this is its first fire, being that fixed [male] seed which must overcome the coldness and the volatility [*que doit surmonter la froideur et la volatilité*] of this [feminine] Mercury. Basil Valentine, in the first part of his *Twelve Keys*, seems to understand the term “King” with these two meanings. Throughout his treatise he gives the name of “King” to perfected Sulphur, and even to the Powder of Projection. One will never learn, he says, how to carry off the victory if the King does not impress his force and virtues upon his Water [or Mercury], to which he tenders the key to his livery, meaning the royal colors, permitting him [thus “stripped”] to be dissolved by her [Mercury] and so rendered invisible. Their King additionally represents the same thing as their Lion. When they talk about a Powder of Projection, they say that it is a King, one who so loves his brothers that he will even give to them his own flesh to eat; so doing, he turns them all into Kings, meaning alchemical Gold.¹⁵⁵

As for the complementary matter of Marcel's Queen,

This [Reine] is the Mercurial Water of the Philosophers; they have so named it because they called their Sulphur a King, he who must be married to this Water [Mercury], which is his natural Bride and his Mother [*son épouse naturelle, et sa mère*]. Basil Valentine and Trevisan are the two alchemical writers who have most specifically discussed the allegorical terminology of the Queen.¹⁵⁶

Now we may turn to Poisson's *Théories* for a more succinct explanation of the Royal Couple of the Alchemists, including an explanation for the nudity of their entourage. Poisson even includes a picture (fig. 5b), taken from Valentine's *Douze Clefs* (a standard work also cited by Pernety), which depicts two standing figures facing one another, the hermetic King and Queen. He briefly explains that the old engraving really represents: “the purification of gold—the King—by antimony, which is the wolf in the crucible, and of silver—the Queen—through lead, or Saturn, placed in the crock.”¹⁵⁷ The more complete explanation of the ensemble given by Poisson reads as follows:

Sulphur and Mercury, representing the Male and Female Principles [*principes mâle et femelle*], were symbolized by a Man and a Woman, most commonly a King and a Queen. This is how they were represented, under the symbolic heading of King and Queen, in the first emblem in the *Twelve Keys* of Basil Valentine, [as reprinted on] page 393 in the *Musaeum Hermeticum* [Frankfurt, 1677]. The union between King and Queen constituted Philosophical Marriage. In hermetic manuscripts the King will be dressed in red and the Queen in white. Their clothes designate foreign matter, or impurities which are soiling them. An engraving in the *Rosarium* depicts them as being nude, meaning that they have just become purified, or disembarassed of all their impurities, and/or of their clothing. Here we find the allegorical treatment of the purification of Gold by antimony (Latin: *stibium*), and of Silver by lead (or Saturn). Purification used to be symbolized by a fountain; in this the King and Queen, meaning Sun and Moon, will come to bathe.¹⁵⁸

At this point it will be perhaps helpful to suggest a likely iconographic source for the basic composition of Duchamp's highly abstracted series of Kings and Queens. This sequence of four images by Duchamp always shows two prominent and upright figures, *le Roi et la Reine*, standing to the left and right of the composition; additionally, a third figure always seems to stand between and somewhat behind the Royal Couple. A curious diagonally rushing form, something like a shower, crisscrosses the center of all four works. By the time Duchamp had completely worked out his hermetic idea, in the final painting of *The King and the Queen Surrounded by Swift Nudes* (MD-70), it seems that certain metallic, or at least sharp-edged and bulky, apparatuses have begun to intrude, so filling the foreground plane to the left and right side of the painting. As much for its similar compositional arrangement, and especially for its parallel narrative element, it would appear that Duchamp's pictorial source was yet another engraving, Plate XIV, reproduced in Poisson's *Théories*. In fact, this is the *bottom* half of another print by Poisson, the top half of which is *L'Enfant Enfermé dans l'Oeuf* (fig. 5a), we already demonstrated Duchamp to have incorporated into the top half of his painting of *Spring* (fig. 3). This iconographic linkage is indisputable.

Noting his other illustration (fig. 5b) to have been derived from "the Sixth Key of Basil Valentine" (but specifically as reprinted in the *Musaeum Hermeticum*), Poisson succinctly explains that this other picture represents "*Union ou mariage du Roi et de la Reine*," that is:

Conjunction, which is the Union or Marriage between King and Queen, Sulphur and Mercury, Gold and Silver. The Sun and Moon [in the upper left and right corners, as in Duchamp's painting] relate to the King and Queen. The machinery for distillations [*appareils distillatoires*: lower left and right, as in Duchamp's later painting: MD-70], as well as

the showers pictured in the far background [*la pluie du fond*], point out how during the operations belonging to Conjunction certain phenomena, emissions of steam and condensation, will come to pass. These make their appearance during the stage of the white color, here symbolized by a swan. The priest [the central figure in both Poisson's print and in Duchamp's painting] represents the actual means of Alchemical Union, for he is Salt.¹⁵⁹

Moreover, since a close iconographic linkage between Duchamp's *Printemps* (fig. 3) and Poisson's *L'Enfant Enfermé dans l'Oeuf* (fig. 5a) has already been established, likewise, the two straining figures placed in the bottom of Duchamp's 1911 painting obviously represent *union ou mariage*, but that seems already an obvious point, given the known function of Duchamp's wedding gift (MD-47). Since Duchamp also latter called himself "Marchand du Sel," obviously "he is Salt."

Although the compositional layout and the verbal description belonging to the print reproduced in Poisson's Plate 14 (fig. 5b) are completely in accord with the known details of Duchamp's painting of *The King and Queen Traversed by Swift Nudes*, other motifs in the King and Queen series probably had another complementary and strictly textual source, namely the *Dictionnaire Mytho-Hermétique*. For instance, Marcel's Nudes, of which one only sees steamy traces (*trainées*) of their fleeting movements, are "swift" and "strong"; in both instances, they would therefore naturally seem to represent Force itself. According to Pernety's explanation of "FORCE,"

This is another term belonging to Hermetic Science, and this *Force* must be understood to refer as much to the active property of the Mercury of the Philosophers as to those spirits which are enclosed within it. When they would say that that "all its force was changed into earth," they meant by this that it had really become a white earth that became fixed against any test. "To take force from upper and lower things," means that an extract is made from Mercury, and this is immediately put, well purified, into the digestive stage; this makes it circulate [*le faire circuler*], and finally it fixes itself in the form of earth and so it comes to lie in the bottom of the vessel.¹⁶⁰

Given the preceding we may even now suppose that the "swiftness" (*vitesse*) of Marcel's Nudes was intended to make a direct reference to their innate quality, or virtue, of Volatility. Pernety notes that which "flies" (*volans*) is "Swift Silver," *Argent-vif* (literally "quick-silver"). All such swift metals belong, says Pernety, to a much larger alchemical category:

VOLATILE is that which flies, which rises up to the heights, that which is sublimated at the top of the vessel during distillation; it can also be that which evaporates due to the action of either the common fire or of

the innate fire, existing within the matter and which is the cause of its fermentation. One calls things "volatile" to render a comparison with birds. In the very beginnings of the Great Work, the Philosophers generally call "volatile" the state of either their Mercury or their Mercurial Waters; they do so in order to make a [pejorative] distinction about the volatility belonging to vulgar mercury. Its volatility has impelled them to designate Alchemical Mercury with names belonging to flying things, as in the example of Eagle, Vulture, Flying Dragon, Air, Water, and numberless other names, which can however be found scattered throughout this *Dictionary*, especially in the article entitled "Matter."

The corollary to Pernety's *volatile* are his "VOLATILES," and "Volatiles are what bring to us the Matter of the Stone." As Pernety further notes, "the Hermetic Philosophers' terminology have certainly served to trick chemists; taking these alchemical terms literally, chemists believed that 'volatility' really meant 'bird.' Nonetheless, Adepts will only discuss by similitude, and so they give the name of 'volatiles' to those ships which bring to us gold from the West Indies." Pernety's other references deal with "VOLATILIZATION [for which] see the article on 'SUBLIMATION' [and] VOLATILIZE (TO) [which] is to render an object, which was originally in a fixed state, volatile. The totality of the Art consists in volatilizing the Fixed, and in fixing the Volatile."¹⁶¹

Even the odd verb *traverser*, which was distinctively used by Duchamp to describe some unique actions pertaining to such symbols of Hermetic Force, is explained by Pernety, and even with a cogent reference to the aspiring Artist. As he observes,

TRANSVERSE means a person who does not follow a straight, or lawful, path. Some Hermetic Chemists have employed this term [*traverser*] in that particular sense, meaning to announce that Bad Artists—those whom they have called "tricksters," meaning pseudo-sophisticates [*les mauvais Artistes, qu'ils appellent "trompeurs," "sophistiqueurs"*—are not situated upon the True Path of the Wise. For this reason, their paths are instead transverse (or perverse), meaning sadly mistaken; so they express themselves in order to underline a fundamental difference belonging to the path that they themselves pursue during the course of the Great Work, and it is this which is called by them "the linear path" or "the straight route" [*linéaire, droit*].¹⁶²

Such as it appears in Duchamp's titular inscriptions, Linda Henderson also relates the verb *traverser* to contemporary scientific discoveries, namely the penetration of solid forms by electronic and radioactive energy.¹⁶³ While there was indeed much talk around 1912 about such invisible transversing energies, Duchamp seems particularly original in having made the popular modernist topic neo-alchemical.

If, as we must presently accept, Pernety was one of Duchamp's primary literary sources, for Duchamp himself had said these four pictures were indeed based on "un jeu littéraire," then, just as in the Laforgue-derived *Encore à cet astre* (MD-60), the underlying idea in this pictorial quartet also seems to represent a transmutative equivocation. Just as before, it appears that fateful error arose because a pseudosophisticated Artist failed to follow the True Path of the Wise, the route the Alchemists called "linear (*linéaire*)" and/or "straight (*droite*)." If one can imagine a simple diagram illustrating this concept, an appropriate label in Duchampian terms might be "*parallélisme linéaire*." One guess is as good as another, and so this particular point need only remain a tantalizing suggestion.

Whether or not one can today nail down the exact identification of a strictly personal meaning lying behind any one of these early works by Duchamp admittedly remains a somewhat questionable point. Nevertheless, our largely textual analyses of various series of deliberate assemblages of esoteric motifs composed by Duchamp have established an important context. In short, each and every one of those seemingly inscrutable, curiously labelled early images by Duchamp potentially carries an identifiable parallel and wholly consistent significance within the standard literature of Alchemy.

Having established a likely working bibliography for our secretive artist during his youthful apprenticeship as an avant-garde artist, we are now much better equipped to deal with the perennially daunting subject matter of Duchamp's universally acknowledged *chef-d'oeuvre*, the *Large Glass* (figs. 1, 11). The content of the acknowledged Duchampian masterwork, like that belonging to those lesser known early works just examined in detail, appears to be largely hermetic or alchemical in character. But in order to explain the mundane sources of such esoterica, first we had to examine (in chapters 1 and 2) the issue of a cultural commonplace, in France at least, namely the presence of alchemical figuration in a Symbolist artwork.

Another fundamental point clarified here was the essential context for the neo-alchemical fashion, namely its popular identification with the perplexing new discoveries of contemporary science: radioactivity, electromagnetism, and X rays. Accordingly, stress has been put on geographical and chronological availability of such ideas, something in the air as it were, and the very notion of easy physical access now makes the alchemical topic much less esoteric. To put it another way, today the once wholly arcane idea of an esoteric, electronically engineered, virtual reality has now become familiar to all bright and reasonably well-educated youth in North America. A century ago in France, I submit, much the same familiarity existed with what for us today is a formidably esoteric topic, *l'Alchimie*.

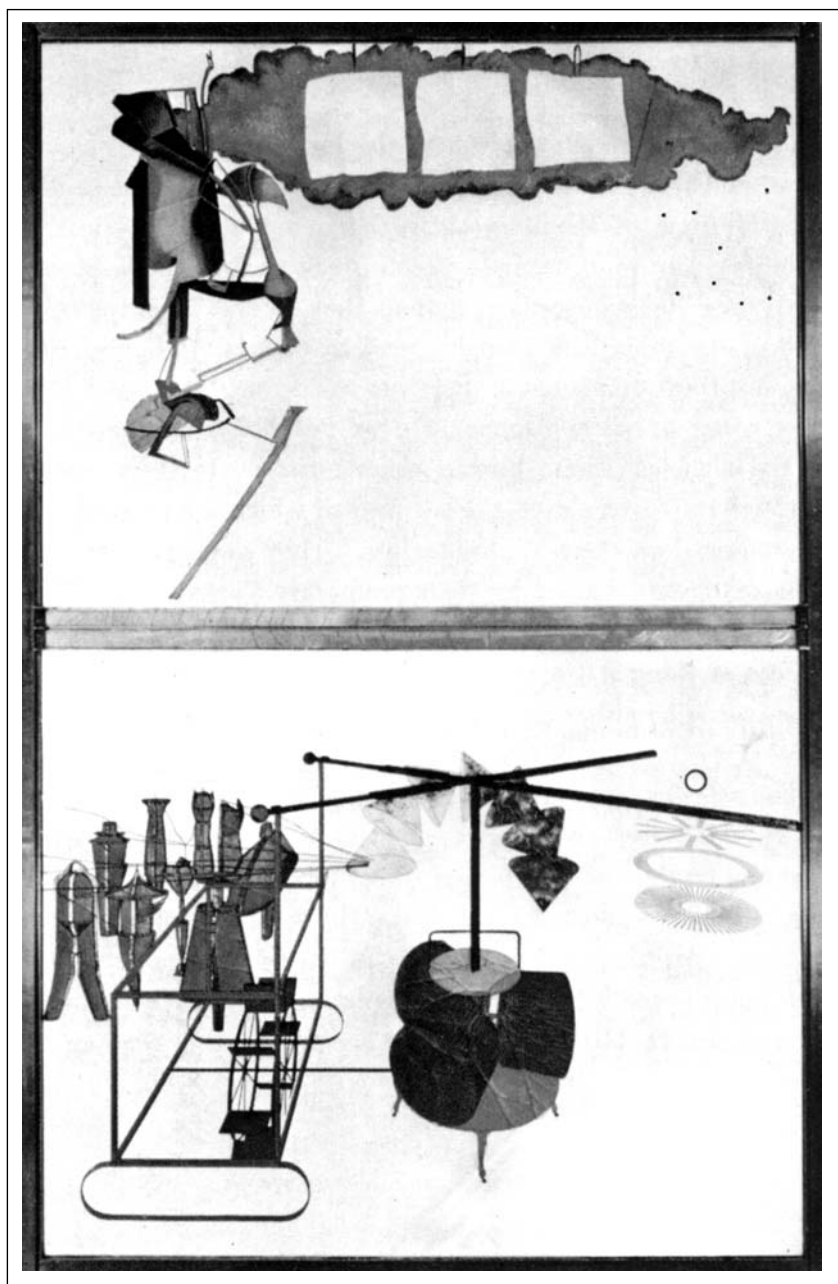


FIGURE 1

Marcel Duchamp, *La Mariée mise à nu par ses Célibataires, même*,
or *Le Grand Verre*, or (*The Large Glass*)

1915–1923, mixed media (MD-133)

(“MD-133,” etc., refers to numbers in Jean Clair’s 1977 *Catalogue raisonné*.)

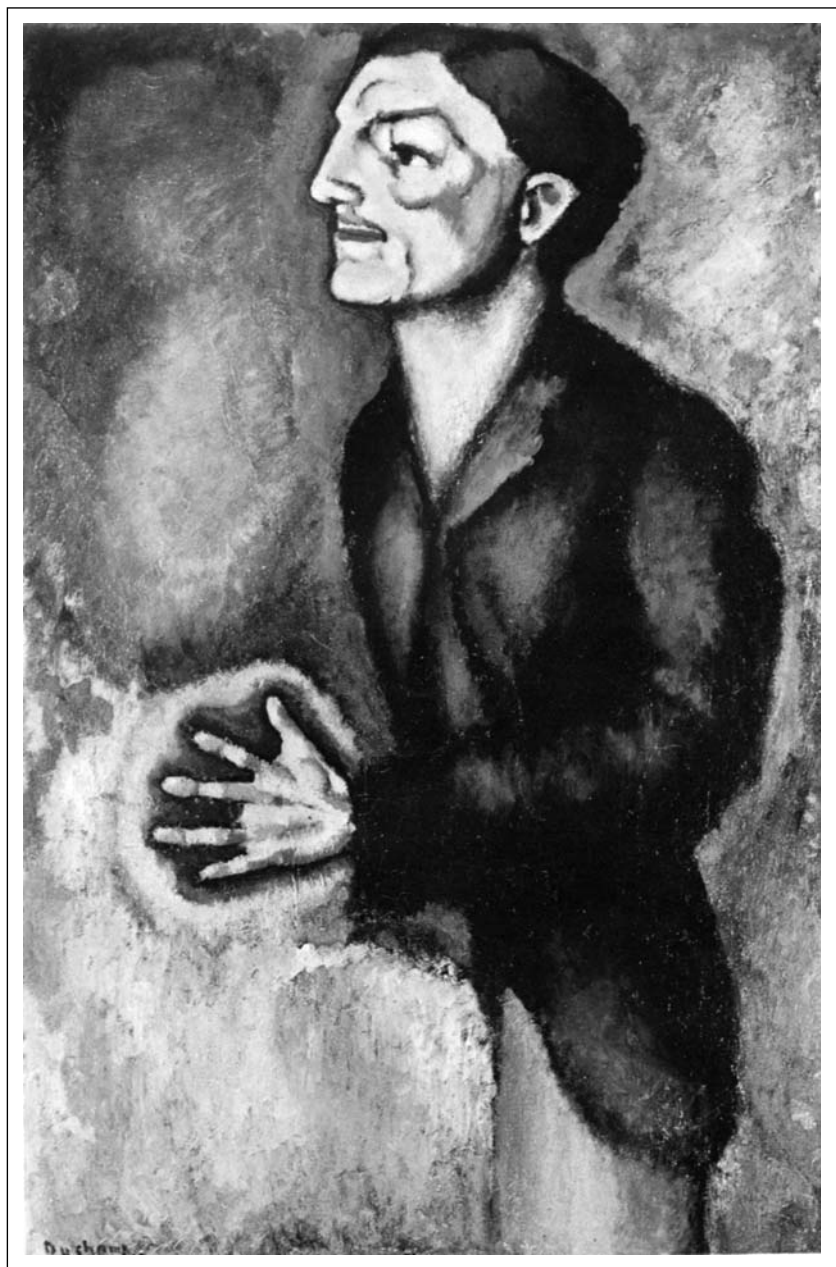


FIGURE 2
Marcel Duchamp, *Portrait du Docteur Dumouchel*
1910, oil on canvas (MD-38)

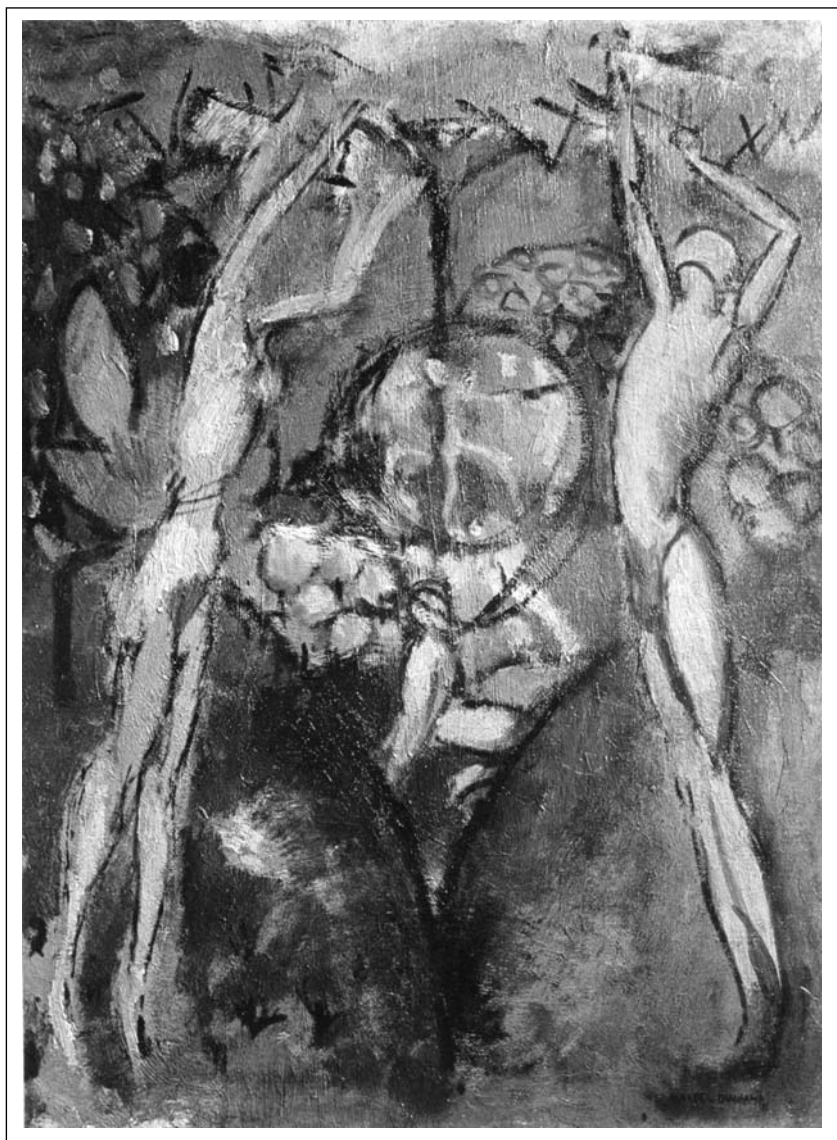


FIGURE 3
Marcel Duchamp, *Le Printemps* or
Jeune Homme et Jeune Fille dans le Printemps

1911, oil on canvas (MD-47)



FIGURE 4

“Mercury in His Glass Vessel” with “The Alchemist and His Mystical Sister Praying for Success of the Great Work”

1677, from Anon., *Mutus Liber*



FIGURE 5a
“L’Enfant Enfermé dans l’Oeuf”

From A. Poisson, *Théories et Symboles des Alchimistes*, 1891: Plate 14, *top half*: see also *bottom half*: fig. 5b “Conjonction, union ou mariage du Roi et de la Reine”



FIGURE 5b
“Conjonction, union ou mariage du Roi et de la Reine”

From A. Poisson, *Théories et Symboles des Alchimistes*, 1891: Plate 14, *bottom half*: see also *top half*: fig. 5a: “L’Enfant Enfermé dans l’Oeuf”

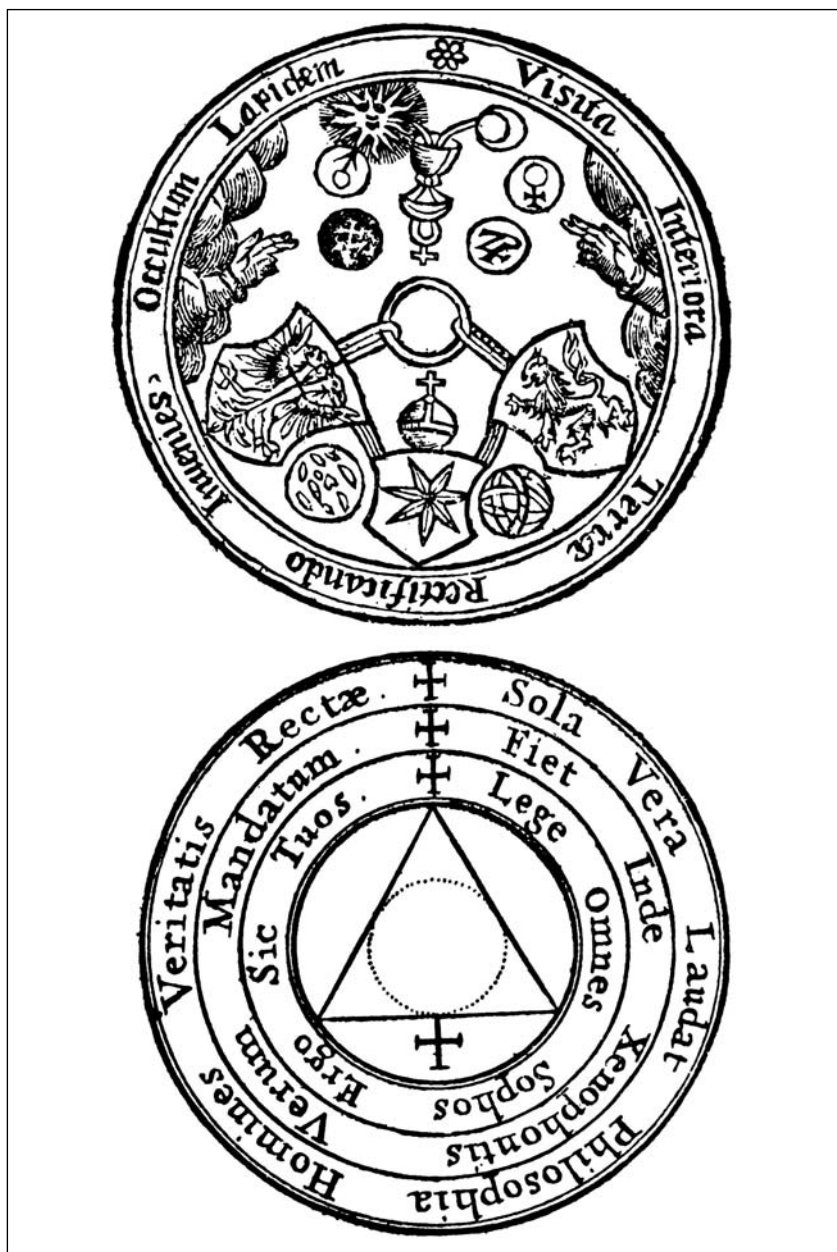


FIGURE 6

“Pantacles acrostiques alchimistes: V.I.T.R.I.O.L. & S.V.L.P.H.V.R.;
F.I.X.V.M.; L.O.S.E.S.T.”

From A. Poisson, *Théories et Symboles des Alchimistes*, 1891



FIGURE 7

“The Scala of Hermetic Knowledge”

Frontispiece from Anon., *Mutus Liber*, 1677

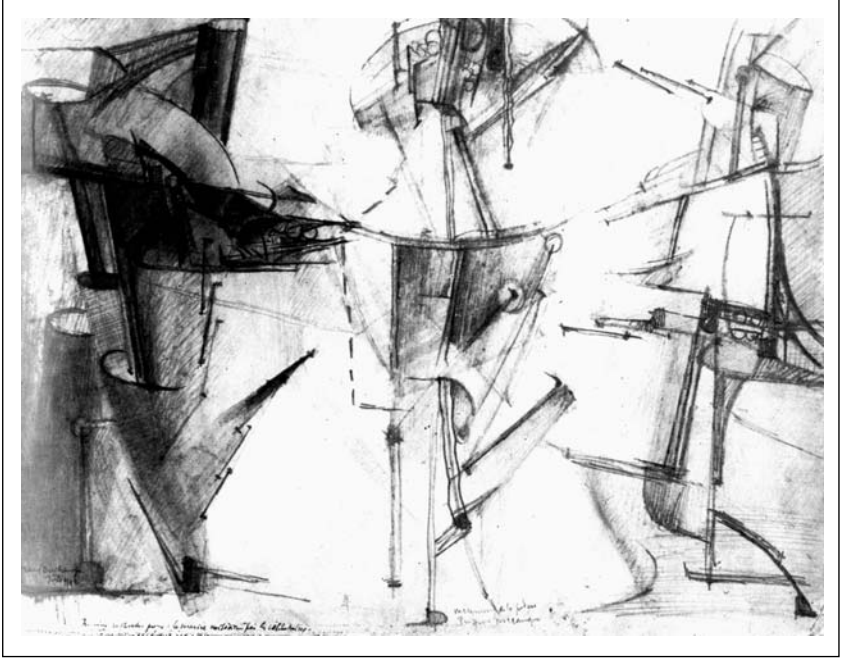


FIGURE 8

Marcel Duchamp, *La Mariée mise à nu par les Célibataires*

1912, preparatory pencil sketch (MD-71)



FIGURE 9

“Two Swordsmen Stripping Percipitated Mercury”

From *Musaeum Hermeticum*, 1677

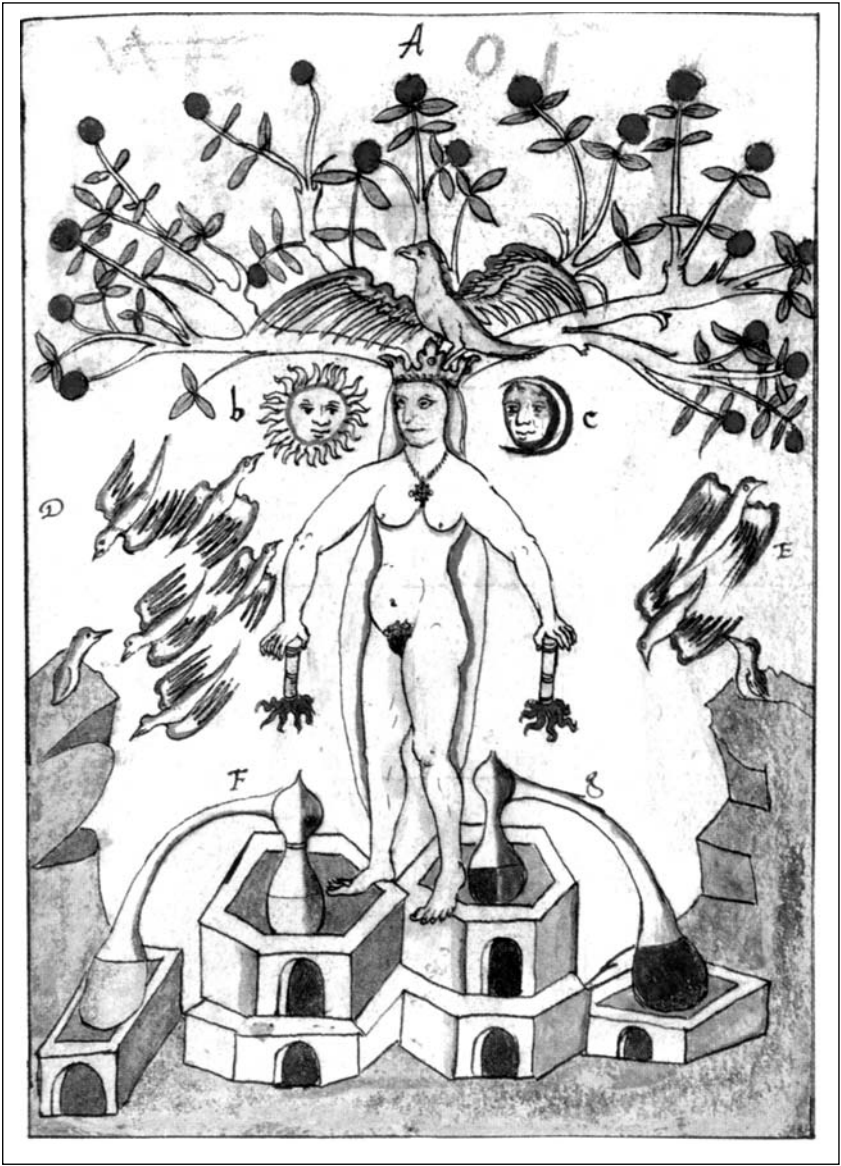


FIGURE 10

“The Nude, Crowned, Arbor-Type Mercury of the Philosophers”

From H. Reusner, *Pandora*, 1582

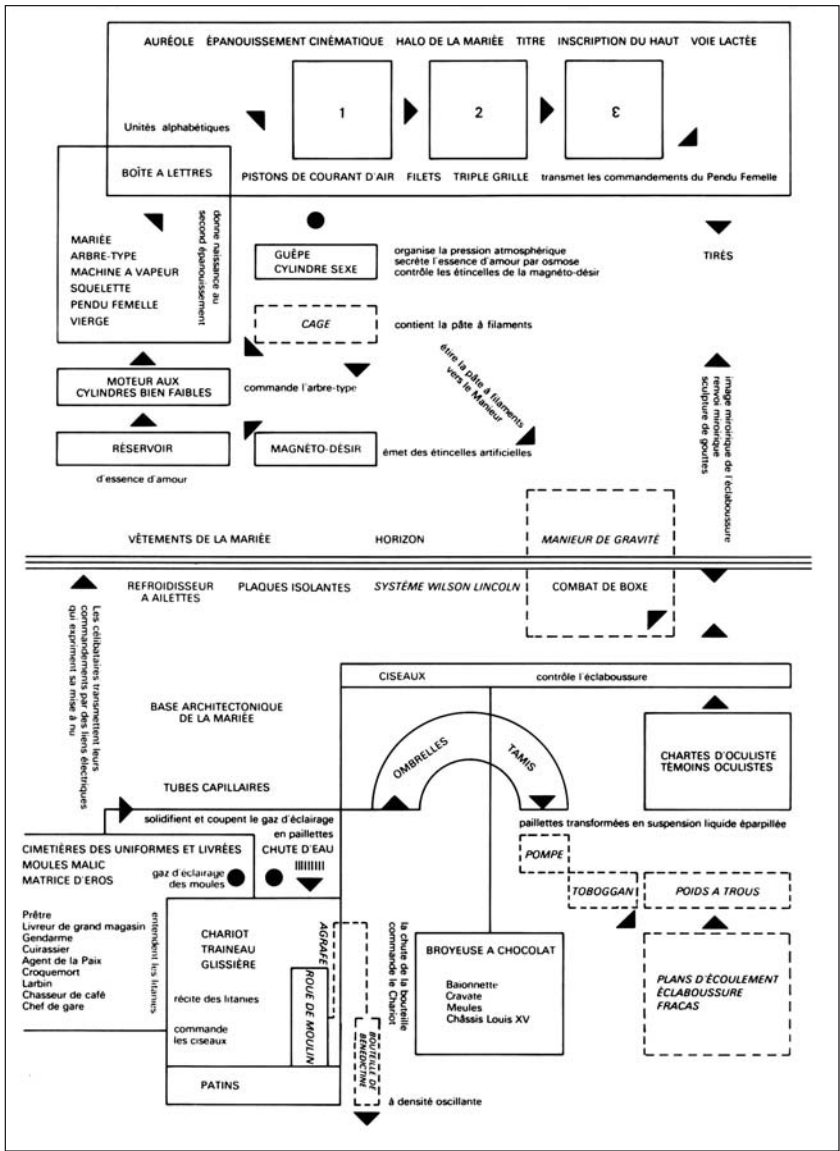


FIGURE 11
 Marcel Duchamp and Richard Hamilton, Schematic
 “Terminological” Plan of *The Large Glass*

1915–1923, after Jean Clair (MD-133)

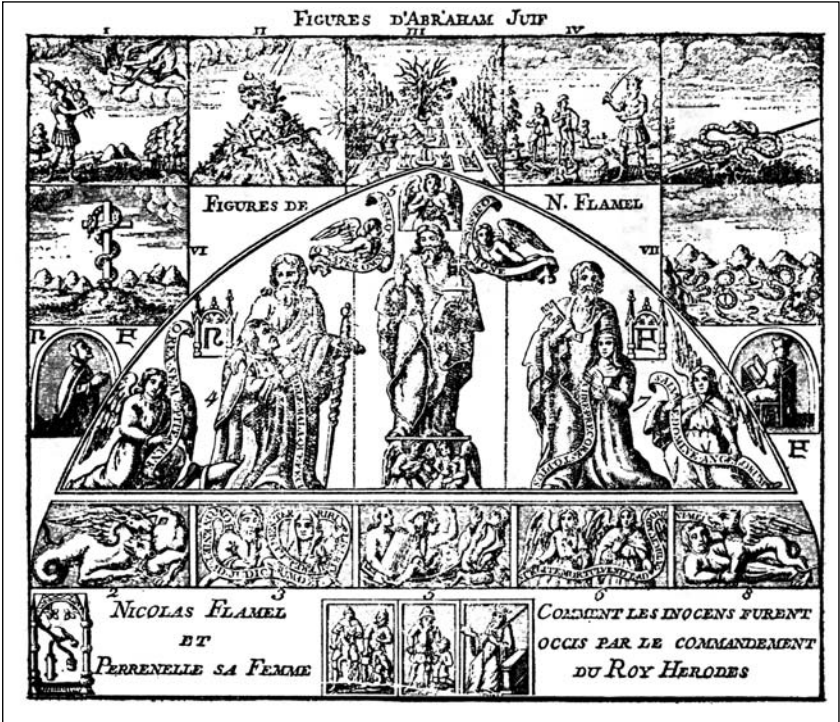


FIGURE 12

“Flamel’s Hieroglyphical Figures for the Cemetary of Innocents”

Frontispiece from A. Poisson, *Théories et Symboles des Alchimistes*, 1891

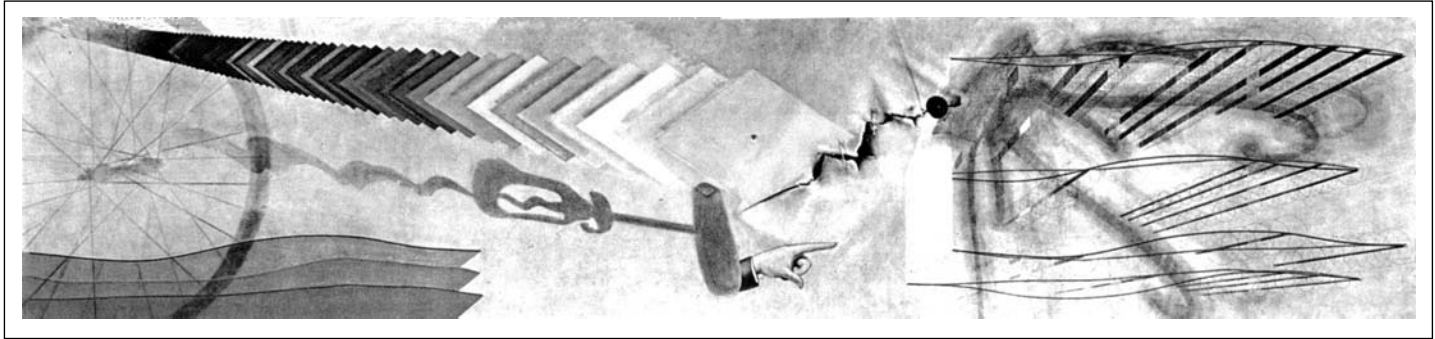
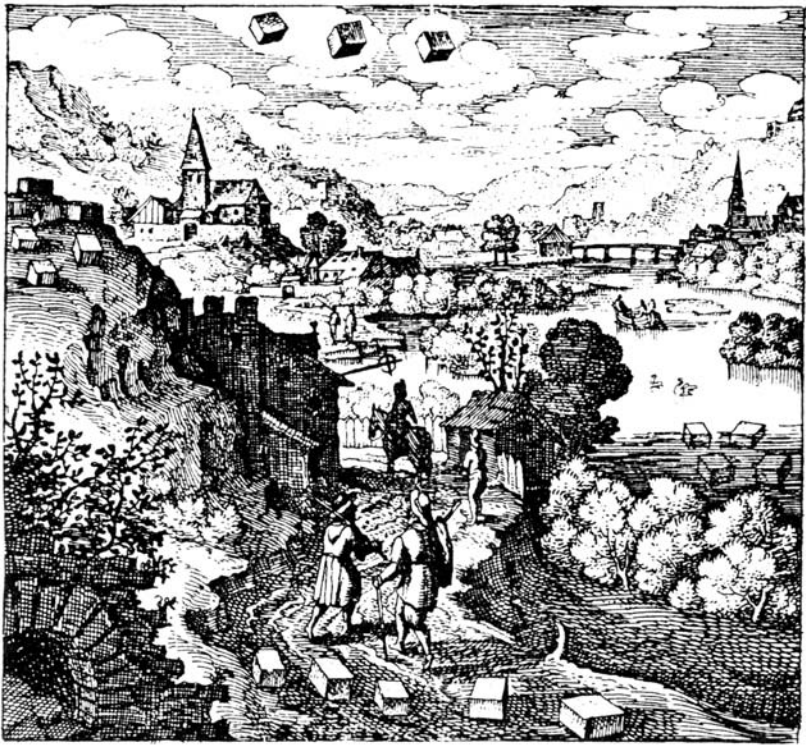


FIGURE 13

Tu m' . . .

Marcel Duchamp

1918, oil on canvas, with bolt, bottle brush, safety pins (MD-14)



EPIGRAMMA XXXVI.

*V*ilerecrementum fertur LAPIS atque jacere
Fortè viis, sibi ut hinc dives in ópsque parent.
Montibus in summis alii statuère, per auras
Aeris, at pasci per fluvios alii.
Omnia vera suo sunt sensu postulo sed te
Munera montanis querere tanta locis.

FIGURE 14

“The Projection of the Stone”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 36

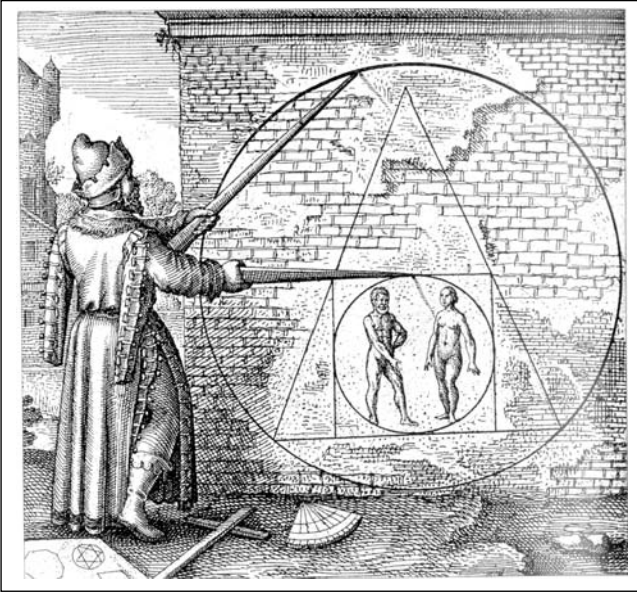


FIGURE 15
“The Squaring of the Circle”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 21

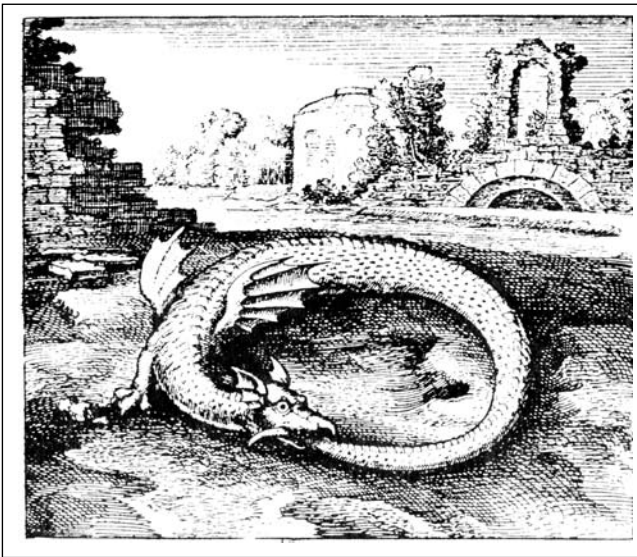


FIGURE 16
“This is the Dragon Eating its Own Tail”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 14

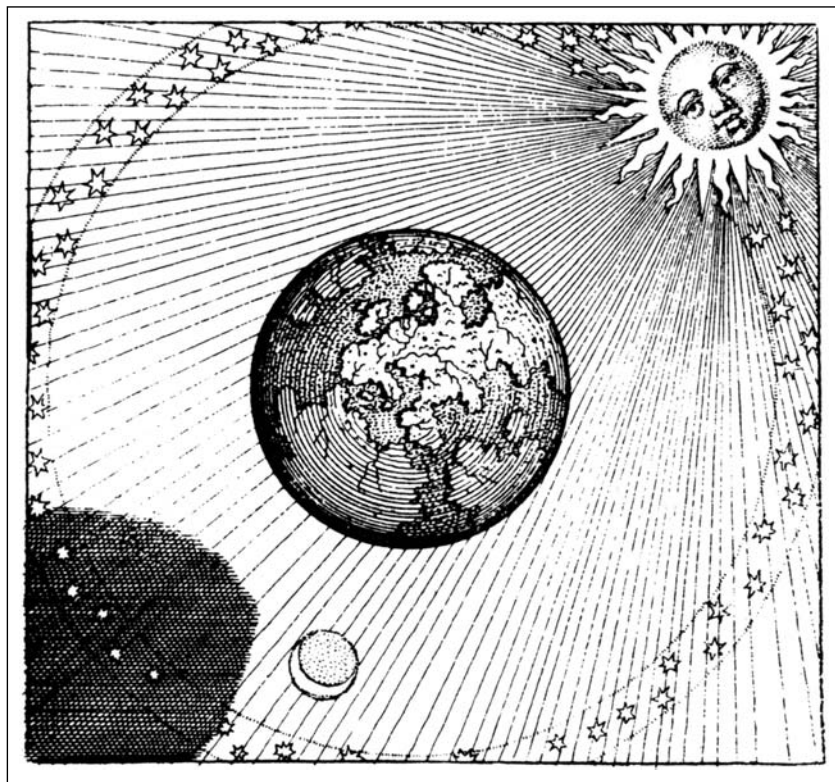


FIGURE 17

“The Sun and its Shadow Complete the Alchemical Work”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 45



FIGURE 18
“Make One Water Out of Two”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 40

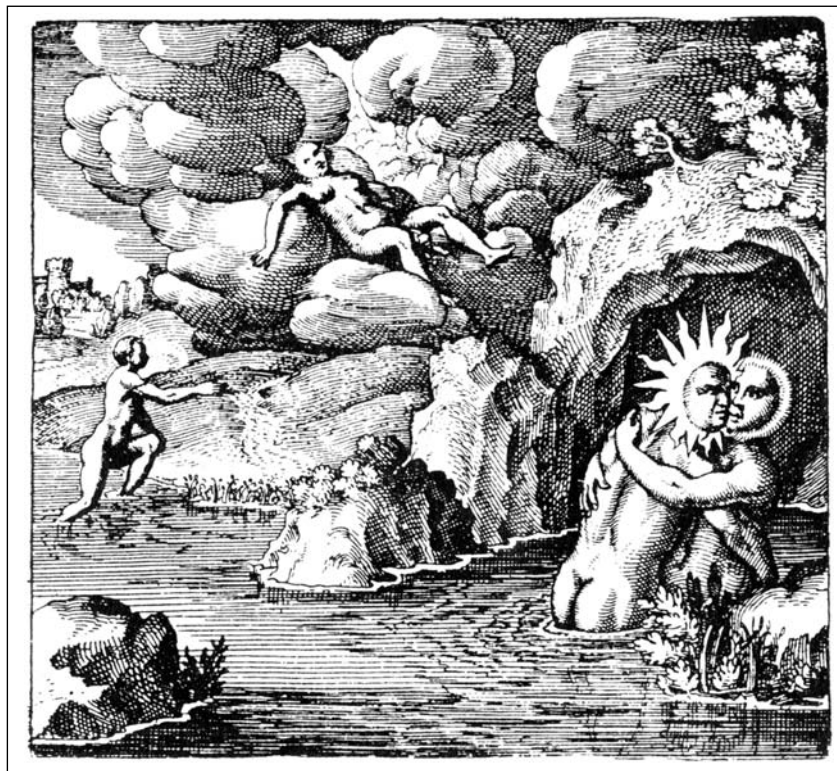


FIGURE 19

“Conception in the Alchemical Bath”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 34



FIGURE 20
Man Ray, *Marcel Duchamp as Rose Sélavy*
ca. 1920, photograph (MD-131)

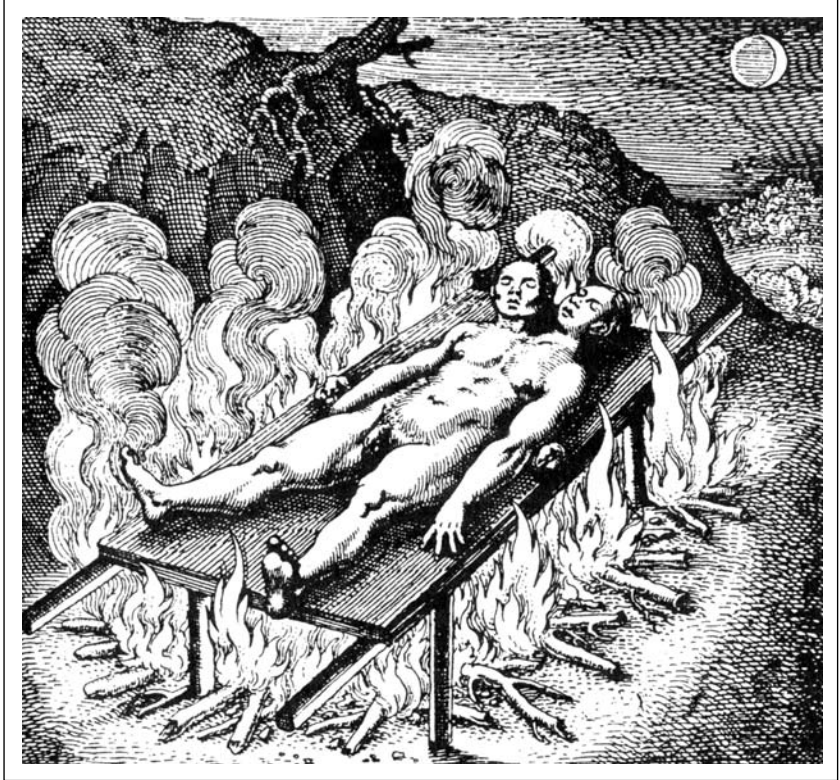


FIGURE 21

“The Alchemical Hermaphrodite”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 33)



FIGURE 22

“The Double-Thing and Its Parents, Hermes and Aphrodite”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 38)

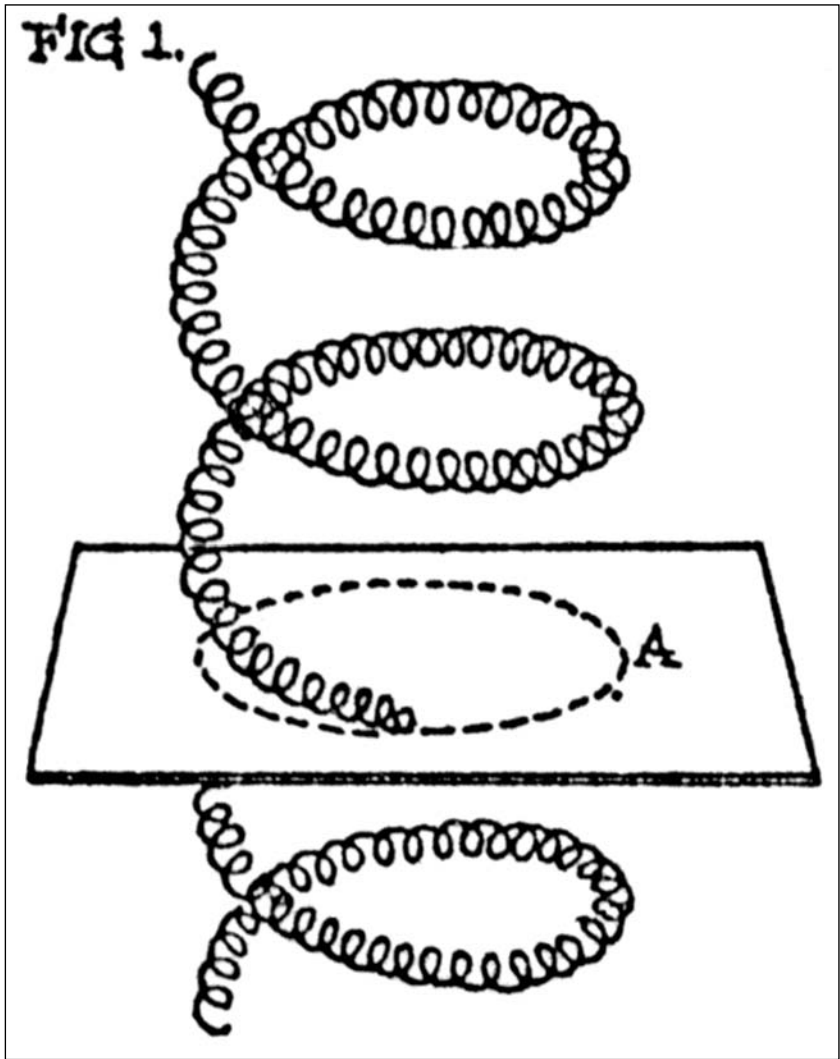


FIGURE 23

“Helix Penetrating Space and Time”

From C. Bragdon, *A Primer of Higher Space*, 1913

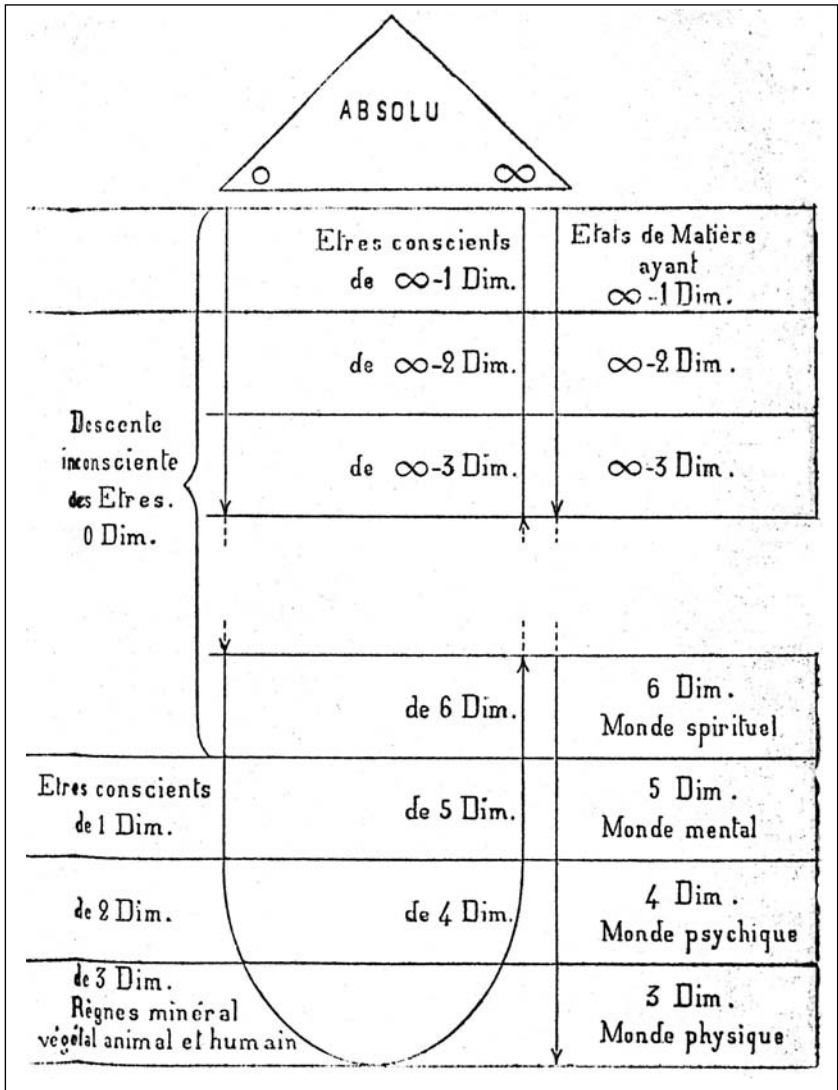


FIGURE 24

“Steps of Theosophical N-Dimensionality”

From A. Noircarme, *Quatrième Dimension*, 1912

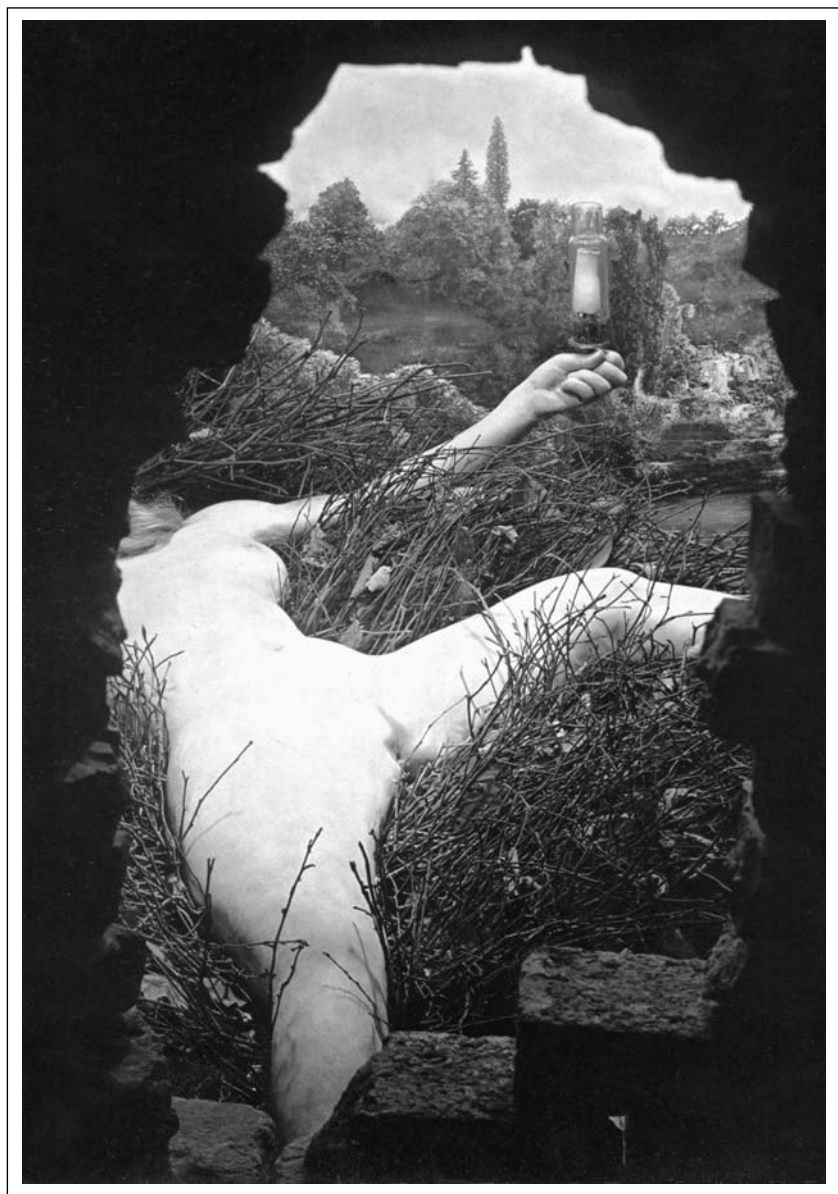


FIGURE 25

Marcel Duchamp, *Étant donnés: 1° la chute d'eau, 2° le gaz*

1946–1966, mixed media environmental assemblage (MD-169): interior view

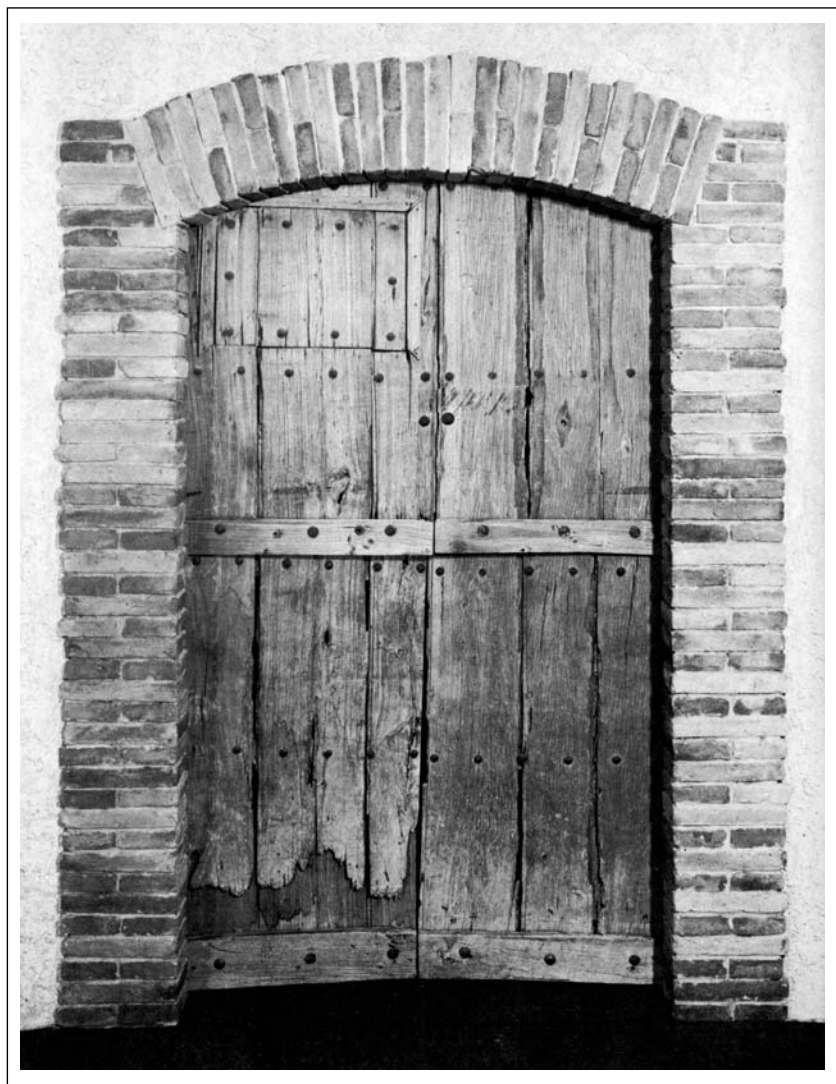


FIGURE 26

Marcel Duchamp, *Étant donnés: 1° la chute d'eau, 2° le gaz*
1946–1966, mixed media environmental assemblage (MD-169): exterior view

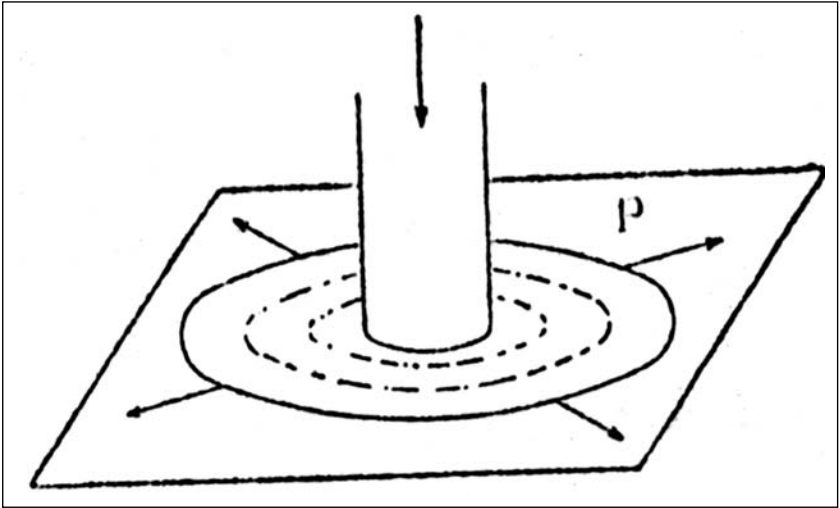


FIGURE 27
"A Fourth-Dimensional Water-Fall"

From A. Noircarme, *Quatrième Dimension*, 1912

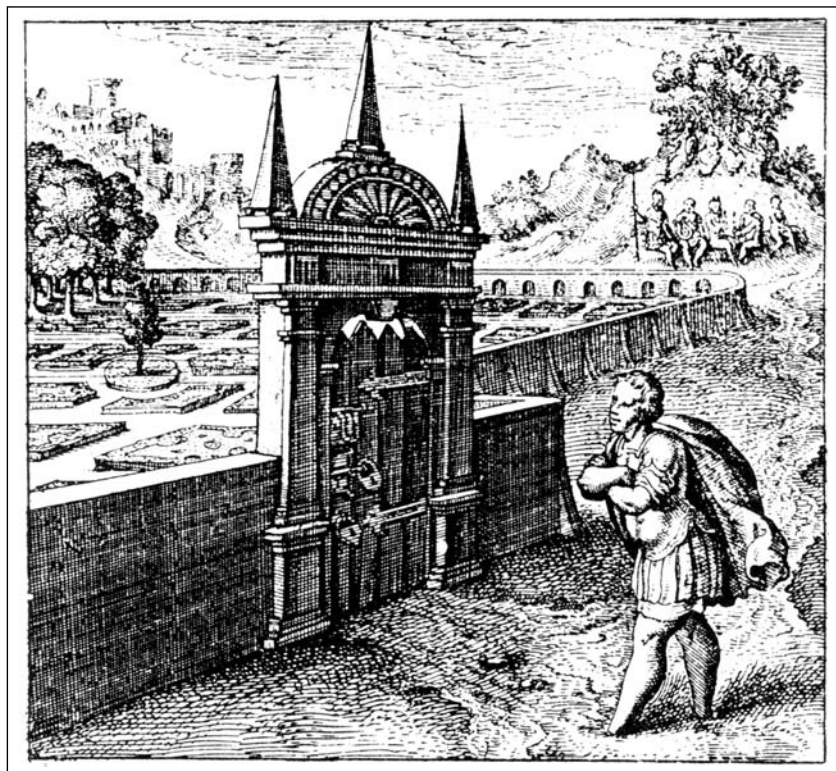


FIGURE 28

“A Thwarted Entrance to the Hermetic Garden”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 27



FIGURE 29

“Alchemical Orgasm and Death”

From M. Maier, *Atalanta Fugiens*, 1618: Emblem 50

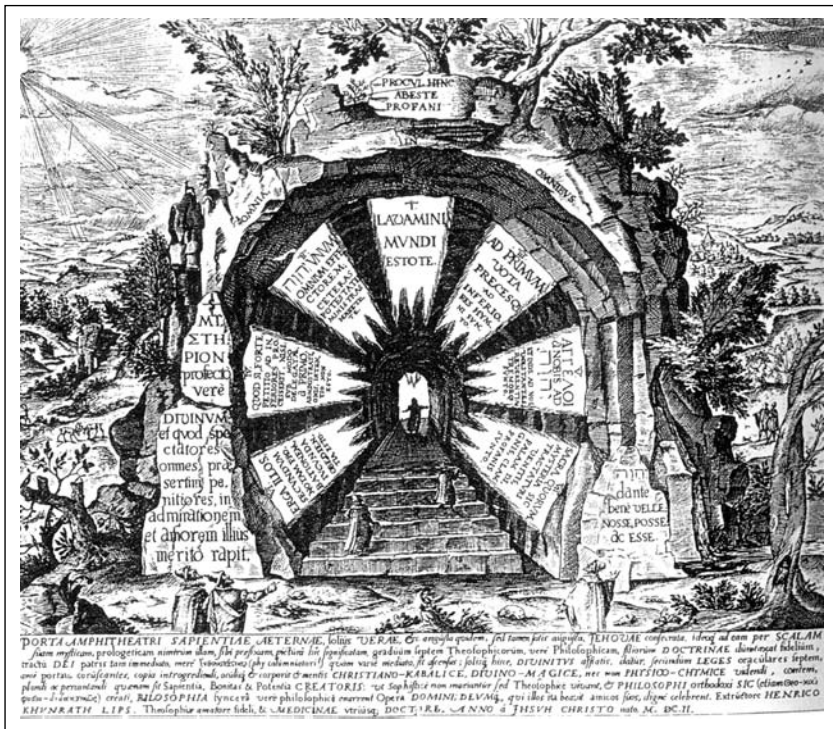


FIGURE 30
 “The Portal to the Amphitheatre of Eternal Wisdom”
 From H. Khunrath *Amphitheatrum Sapientiae Aeternae*, 1609

Duchamp in New York with esoteric patrons and the *Large Glass*, 1915–1923

Fleeing from a war-torn European continent, after a tense Atlantic passage in a blacked-out steamer cautiously navigating through dark waters to avoid German U-boats, Marcel Duchamp arrived in the port of New York on a sweltering Tuesday, August 11, 1915. Greeted on the pier by Walter Pach, the émigré artist was immediately brought to the apartment of Louise and Walter Arensberg, who lived at 33 West Sixty-Seventh Street.¹ The Arensbergs were to become Duchamp's most devoted patrons during his early years in America; in retrospect, this turns out to have been by far the most significant period in his entire career. The oeuvre Duchamp produced for his enlightened New World patrons now forms the unsurpassed Arensberg collection in the Philadelphia Museum of Art. The most important individual commission among all these diverse works is, of course, the *Large Glass* (fig. 1), which, in fact, Duchamp had been actively conceiving in his mind since around 1912.

In their New York salon the Arensbergs gathered around themselves a coterie of artists that included some already major figures of the European avant-garde. Among those who had wisely sought refuge in neutral America, besides Duchamp, Francis Picabia, Albert Gleizes (the early Cubist theoretician), the author Henri-Pierre Roché, and a composer of primitivist-anarchist music, Edgar Varèse. Numerous Americans susceptible to European avant-garde ideas were also attracted to the Arensberg Circle, including the painters Charles Sheeler, Man Ray (Emmanuel Radetsky), and John Covert. Also in attendance was another future art patron of Marcel Duchamp, Katherine Sophie Dreier (1877–1952), and we shall soon see that she, just like Walter Arensberg (1878–1954), possessed her own esoteric agenda.

For Duchamp, Walter Arensberg possessed two important features: considerable inherited (and married) wealth and an enthusiastic interest in the arts. Because of these factors, he was to become a most generous and charismatic supporter of, besides Duchamp, what is now called New York Dada.² At the same time, Arensberg was notorious for his own, rather odd intellectual pursuits, and these interests throw much needed light on some equally odd, new directions Duchamp's art was to take in America, beginning nearly immediately after his arrival in 1915.³ It appears that Arensberg and Duchamp often entered into active creative partnership. Long before he met Duchamp, and before he moved to California in 1921, Arensberg had been creating markedly esoteric works of pseudoscientific scholarship. The published results were *The Cryptography of Dante* (1921), *The Cryptography of Shakespeare* (1922), and *The Shakespearean Mystery* (1928). This pseudoscholar and art patron obviously fancied himself a code-breaker, a cryptographer. According to Arensberg, the real meanings of Dante's *Divina Commedia* and of several of Shakespeare's plays could be extrapolated by means of the decipherment of cryptic messages. Since these hidden, or occult, significances had been deliberately concealed within the famous texts by their devious authors, it obviously required a very ingenious intellect to bring them to light. Ever since Arensberg had graduated cum laude in English literature from Harvard in 1900, he searched through the collected works of his targeted subjects for their hidden codes.

In the case of the Bard of Avon, the purpose was to prove that Sir Francis Bacon was the real author of what less ingenious intellects naively thought a product of the mind of William Shakespeare. Besides that revelation, Arensberg also sought to demonstrate that Bacon was himself the mysterious founder of the Rosicrucian Brotherhood, those enthusiastic authors of alchemical allegories published during the baroque era. In the case of Dante, the proposal was perhaps a bit more original. As Arensberg meant to reveal to a startled world, the *Divine Comedy* symbolically reenacts various aspects of birth, reincarnation, and the primitive Mother-Goddess Cult. This stratagem allowed for modernist and, therefore, wholly anachronistic, Freudian interpretations of a previously unsuspected *Trecento* sexual symbolism. According to the indefatigable American literary cryptographer, Dante's three stages—Hell, Purgatory, and Paradise—were really representations of different aspects of the reproductive organs of the distinguished Tuscan poet's mother. If one knows how to read the great medieval epic, Arensberg claimed, Dante is first born through vaginal passage and then, by means of incestuous love-making, Dante is again destined to be reborn—as Christ. A decision on the real merits of these neo-Freudian insights is probably better left to a suitably informed scholar of high medieval culture.

In much later interviews with Pierre Cabanne, Duchamp recalled, not surprisingly, that Arensberg “had a difficult character, poor man. He was a

little older than I, although not much, and he wasn't recognized very quickly or very completely as a poet—so he became disgusted with poetry and soon stopped writing it." Frustrated, Arensberg turned to a very different literary enterprise; according to Duchamp, "he had a fantastic hobby, cryptography. . . . His system was to find in the text, in every three lines, allusions to all sorts of things. It was a game for him, like chess, which he [like Duchamp] enjoyed immensely. He had two or three secretaries working for him. . . . [His research] was mostly the conviction of a man at play. Arensberg twisted words to make them say what he wanted, like every one who does that kind of work." Then Duchamp mentioned how the would-be cryptographer became his patron: "When I arrived, he began buying my things. . . . Arensberg had known that I was coming to America, and, without knowing anything about me, he wanted to meet me. I stayed at his place for a month, during which time our friendship was born, a friendship which lasted all my life."⁴

As the artist further acknowledged, Arensberg directly contributed to Duchamp's material support, particularly by paying his rent. This largesse was supplemented by Duchamp with another job as a librarian, at the Institut Français in Manhattan, or by giving French lessons to Arensberg's wealthy friends, including Katherine Dreier and the three Stettheimer spinsters, Carrie, Florine, and Ettie. Duchamp's pay as a teacher was spectacular at a time when the going wage for an exhausting, nine-hour, workday in the automobile industry was only \$2.50. Both these part-time jobs provided Duchamp with enough money to be independent. Of his desultory linguistic labors, the artist later recalled, "I gave two or three lessons a day, and I probably learned more English than my pupils learned French. I was not a good teacher—too impatient. . . . I could almost live on what I made this way, because everything was so much cheaper then. You could live in New York on five dollars a day, and, if you had ten dollars, you were a king."⁵

Despite the somewhat disparaging tone of Duchamp's comments about his generous patron's cryptographic obsessions, it is unquestionable that Duchamp himself enthusiastically participated in the very same esoteric activities. Evidence to this effect is provided are four mysteriously inscribed postcards addressed to Walter Arensberg; now called *Rendez-vous du Dimanche 6 Février 1916* . . . (MD-105), this is an ensemble which Dieter Daniels labels a blatantly "kryptographischer Verschlüsselungen."⁶ In 1916, for instance, Duchamp also collaborated with Arensberg in the cryptic redoing of an ordinary dog's grooming comb; relabeled *Peigne* (MD-106), and once secretly inscribed, it rose to new heights of Arensberg-like occult significance (as is revealed in chapter 6). Another blatant example of an interest in that literally secret writing and enciphering that was equally shared by Arensberg and Duchamp is the art object called *À bruit secret* (MD-107).⁷

"With Secret Sound" was fabricated by Duchamp on Easter Sunday, April 23, 1916. This curious artifact consists of a ball of twine held between

two brass plates that are joined together with four long bolts. This was truly a work of collaboration. Just before its completion, Arensberg put something secret into the ball of twine. Today, that still unknown metallic device still makes the object mysteriously rattle when shaken. Not even Duchamp was let into the secret of Arensberg's hidden bruitist addition. On the top and the bottom plates of *À bruit secret*, there are inscribed three lines of jumbled French and English words, many of which are incomplete. Each letter was placed into its own square of a uniform size. The results of the inscribed sequences look like this—with a period to signify a missing letter and a slash to indicate the spaces deliberately left blank:

1. TOP PLATE:

P . G . // . E C I D E S // D E B A R R A S S E .
 L E // D . S E R T . // F . U R N I S . E N T
 A S // H O W . V . R // C O R . E S P O N D S

2. BOTTOM PLATE:

I R . // C A R . E // L O N G S E A
 F . N E , // . H E A . , // O . S Q U E
 T E . U // S . A R P // B A R . A I N

The idea was that the dots indicated missing letters, which are to be found somewhere in the same vertical column. The “sentences” apparently begin on the bottom (or upper?) plate and are supposedly completed, or brought to completion, above, in the top (or lower?) plate. One possible “solution” would be as follows—but, of course, one really does not know exactly which new letters (as here suggested in lowercase) should have been substituted for the original dots:

P a G e // d E C I D E S // D E B A R R A S S E r
 L E // D e S E R T s // F o U R N I S s E N T
 A S // H O W e V e R // C O R r E S P O N D S

a I R // C A R é E // L O N G S E A
 F i N E , // H E A t , // O r S Q U E
 T E n U // S h A R P // B A R g A I N

As one sees here, English words have been mixed together with French ones (their equivalents?) in a fashion that perhaps suggests a greater logic, but that is one that still eludes me—or anyone else. Unfortunately, after spending (or wasting) considerable time on the problem, this investigator finds the results to be nearly total nonsense. One comprehensive interpretation of the Arensberg-Duchamp text is the following, in which I have trans-

lated the likely French words into a probable English correspondence (underlined), and indicated the breaks from one plate to another, meaning from below to above, and beginning in the center line of each terzine: “The—desert[s]—furnish[es]—/ Fine,—heat,—when—/ Page [boy?]—decides—to clear up—/ Kept—sharp—bargain—/ As—however—corresponds—/ air—square—alongsea—.”

Although these sentences admittedly do not yield much coherent meaning, I have found what appear to be two instances of letter sequences of the sort Arensberg called an “anagrammatic acrostic,” which, he explained, “is not read consecutively; and, using as it does initial and contiguous letters, is not read exclusively on initials.” In this case, what seems actually revealed are the names of the two collaborators; nonetheless, again according to Arensberg, “the reading, however it may be confirmed, cannot be absolutely *proved* as intentional” (his emphasis).⁸ In the first instance we have “Arensberg,” as derived from this hidden sequence (with the pertinent letters underlined):

a I R // C A R é E // L O N G S E A
 F i N E , // H E A t , // O r S Q U E
 T E n U // S h A R P // B A R g A I N

The second instance, rather more obliquely—due to an alphabetical displacement of one letter, but just as with the preceding example—seems to yield “Duchamp”:

L E // D e S E R T s // F o U R N I S s E N T
 A S // H O W e V e R // C O R r E S P O N D S
 F i N E , // H E A t , // O r S Q U E
 T E n U // S h A R P // B A R g A I N

Although the results of my attempts to translate the whole text remain otherwise tenaciously devoid of any apparent sense, the format overall, now revealing his previously hidden authorship, appears to be derived from a traditional esoteric scheme unquestionably familiar to Arensberg, namely magic squares.

A number of these *Carées magiques* were recorded in the *grimoires*, the old French books of magic. A notable example was translated “from an old and rare French manuscript in the Bibliothèque de l’Arsenal at Paris” into English, and first published in London in 1898 by a noted British occultist, S. L. MacGregor-Mathers.⁹ The typically ponderous title of this esoteric publication is *The Book of the Sacred Magic of Abra-Merlin, the Mage as Delivered by Abraham the Jew Unto His Son Lamech. A Grimoire of the Fifteenth Century*. Arensberg probably had access to this publication, or at least to

another very similar; these texts were common then. In fact, Arensberg did cite MacGregor-Mathers's Cabbalistic studies in his own published works.¹⁰ All such occultist cryptographical materials were specifically directed, the Briton says, to both "English and American students of Occultism," and adds that *The Book of the Sacred Magic of Abra-Merlin* is "a Magical work of much importance from the Occult standpoint."¹¹

The inscribed plates of the Duchamp-Arensberg cryptographic effort, evidently "a Magical work of much importance from the Occult standpoint," have sixty squares below and seventy-five above. According to MacGregor-Mathers, the granddaddy of all such "Qabalistic Squares of Letters" is the "Key of Solomon," and this arcanum is found "inscribed within a double circle"; in this case, the hidden message corresponds to Psalm 77:8 in the Bible. Nevertheless, the prototypical occultist magic square transforms the text; as was explained by MacGregor-Mathers,

In the Hebrew, this versicle consists of exactly twenty-five letters, the number of the letters of the square. It will be at once noticed that both this form and that given by Abraham the Jew [a legendary Alchemist] are perfect examples of double acrostics, that is, that they read in every direction, whether horizontal or perpendicular, whether backwards or forwards. . . . It is also to be observed, that while many of the Symbolic Squares of Letters of the Third Book present the nature of the double Acrostic, there are also many which do not, and in the case of a great number the letters do not fill up the square entirely, but are arranged somewhat in the form of a gnomon. Others again leave the center part of the square blank.¹²

As we may now observe, besides appearing to have the composition of a *grimoire*-derived, "symbolic square of letters," Duchamp's *À bruit secret*—evidently standing for what MacGregor-Mathers calls "things carefully hidden and concealed"—is bilingual. MacGregor-Mathers, a convenient spokesman for a whole school of modern, strictly occultist cryptography, again provides the most likely explanation for the Duchamp-Arensberg secret art object:

I yet wish to state some reasons in favour of the employment of a language other than one's own. Chief, and first, is that it aids the mind to conceive the higher aspect of the Operation; when a different language, and one looked upon as sacred, is employed, and when the phrases in which do not therefore suggest matters of ordinary life. . . . If properly pronounced [other languages] are more sonorous in vibration. . . and from that circumstance they can suggest greater solemnity. Also know that the farther a Magical Operation is removed from the commonplace, the better. . . . Furthermore, the words in the ancient languages imply "formulas of correspondences" with more ease than those of the modern ones.¹³

The thoughtful British Occultist observes a potential risk in such endeavors: obsession. "At the risk of repeating myself I will once more earnestly caution the Student against the dangerous automatic nature of certain of the Magical Squares of the Third Book; for, if left carelessly about, they are very liable to *obsess* sensitive persons, children, or even animals."¹⁴ Arensberg should have paid heed to this warning.

For the purposes of this particular hermetic interpretation of Duchamp's oeuvre overall, it seems important to stress the fact that Arensberg was fascinated with Alchemy. Indeed, Arensberg typically pursued the colorful hermetic subject with his particularly tenacious kind of pseudoscholarship and exhaustive erudition. Oddly, even though easy enough to document, this is a significant point scarcely, if at all, mentioned in the few studies that focus on the obviously crucial Duchamp-Arensberg connection. What follows accordingly provides a particularly useful insight into a previously unconsidered aspect of Duchamp's unique conjoining of eroticism and contemporary scientific references, both being factors commonly acknowledged in current scholarship as having propelled the diverse projects surrounding the complex effort leading to the *Large Glass* (fig. 1). More to the specific point, we can actually document what Arensberg himself thought, and had to say in print, about the scientific experimentation supposedly propelling alchemical eroticism.

Since this useful text seems to represent new material for Duchamp scholarship, I may with clear conscience quote Arensberg's narrowly erotic explanation of Alchemy at some length:

The symbolism of the [Occultist] mysteries is the key to the scientific experimentation that appears in Alchemy [even though] this fact, however, is not properly understood. In order to understand the attempt that appears in Alchemy to adapt the symbolism of the mysteries to a scientific procedure, it is necessary to recognize the sense in which the process of sexual generation was equated in the mysteries both with the logical [or scientific] process of thought and with the physical process of nature considered as a [physical] mechanism. It was as a result of this equation that the Alchemist attempted the regeneration of metals (transmutation) by adaptation of the procedures taught in the mysteries for the regeneration of man.

The fundamental hypothesis of Alchemy is simply this: that the different forms of matter are variant developments of an original form which they all possess in common (*materia prima*); so that any one form, such as lead, may be changed into any other form, such as gold. . . . The analogies [as allegory] drawn between the alchemical procedure in the regeneration of metals and the procedure of the mysteries in the regeneration of man may be summarized as follows: the *materia prima* was equated with the mother; the metal to be changed was equated with the son; the reduction of the metal to the form of the *materia prima* was

equated with the return of the son to the mother; and the production of the desired metal was equated with the son reborn.

In the course of the reduction of a metal to its original form as *materia prima*, the metal was subjected to a process called putrefaction, which was equated with death; the entrance of the putrefied metal into the alchemical retort or furnace was equated with its burial; and the retort or furnace itself was equated with the grave. And since the [allegorical] form of putrefaction was the form in which the metal united with the *materia prima*, as maternal, for the purpose of rebirth, the putrefied form was equated with semen; the entrance of the semen into the alchemical retort or furnace was equated with the divine marriage; the retort or furnace itself was equated with the maternal womb; and the cooking of the metal in the retort or furnace was equated with gestation.

Thus there appears in the [allegorical] procedure of Alchemy, as in the procedure of the Mysteries, as the means of transmutation corresponding to the regeneration of man, the symbolism of a divine and incestuous marriage (since the *materia prima* of a metal becomes its *materia prima* a second time) in which the grave is equated with the womb. And since the womb thus equated with the grave was a grave which had to be sought in the form of experimentation, it was a grave which was represented, as in the Mysteries, in the sense of a secret grave. . . .

That Alchemy involves a divine marriage (as of the sun and moon) which is analogous to a human marriage is illustrated in [for instance] the plates reproduced from the *Rosarium Philosophorum* by Arnoldus de Villanova. Analogous symbolism appears in the plates reproduced from the works of Michael Maier [including his *Atalanta Fugiens*, for which see chapter 6]. Characteristic expression of sexual procreation and incest in reference to the alchemical procedure appear in the following quotations from the *New Light of Alchemy*, published under the name of Michael Sendivogius: (1) "The next instruction however is: 'Take the living male and the living female and join them in order that they may project a sperm for the procreation of a fruit according to their kind.' Again: "You must produce one thing out of two by natural generation." (2) ". . . that if gold emits its seed into steel, the latter conceives and brings forth a son much nobler than the father; that if this son fertilizes his own mother, her womb becomes 'a thousand times better fitted to produce excellent fruit.'"¹⁵

Later (in chapter 8) I shall quote again from the published writings of Walter Arensberg, showing how he carefully cited an old alchemical text to present many common narrative, allegorical elements of the ancient alchemical tradition. The purpose is then to expose those particular hermetic motifs, alchemical precursors as presented by Arensberg, as the ones that formed an erotic content propelling Duchamp's last masterwork, *Etant donnés* . . . (ca. 1946–1968: figs. 25, 26). Overall, however, the reader is forewarned that the

statement just quoted from Arensberg's *Shakespearean Mystery* (1928) does in fact provide nearly all the broader hermetic notions that I shall attribute to the larger bulk of Duchamp's works, as conceived and executed between 1912 and 1968.

Duchamp's other major American art patron was Katherine S. Dreier, an amateur painter and a financially comfortable connoisseur of newly fashionable abstract art.¹⁶ Unquestionably, she also took much delight in practicing the same sort of esoterica, Occultism in general, as did the Arensbergs. Katherine Dreier, like Walter Arensberg, was additionally very much interested in the use of cryptography in her own, spiritually sensitive artworks. She received both art counsel and French lessons from Marcel Duchamp, under whose thrall she fell in 1917. In 1920, Dreier and Duchamp co-founded the Société Anonyme, an enthusiastic but essentially amateur effort dedicated to an evangelical propagation of Modernism in America. In her case, the allegiance with mainstream Occultism is absolutely unquestionable: Dreier was, at the very least, a sympathizer with Theosophical beliefs, if not indeed an actual card-carrying member of the Theosophical Society, which she herself had called "one of the great philosophical movements of our times."¹⁷ Dreier's specific esoteric reference point was, unquestionably, Theosophy.¹⁸ As we saw in chapter 1, pseudoscientific in its method, Theosophy endlessly taught the existence of deeper spiritual realities; these are inevitably, tenaciously invisible to noninitiates. As is endlessly reiterated by Theosophists, these occult realities lurk behind the deceptive material appearance of the world of Nature.

Theosophy was irresistibly modern; according to its own definitions, it was scientific, it was philosophical, it was noble, and it was broadly humanitarian. Theosophy, like all the other modernist branches of the Esoteric Tradition, absorbed the notion of *Zeitgeist*, or "Spirit of the Age." According to these generally stereotyped tenets, each age possesses a dominant characteristic that can never be repeated. Modernism is, and particularly by Theosophy's reckoning, a unique age. Modernist art must, therefore, find the specific pictorial means to express that *zeitgeistliche* uniqueness.¹⁹ For many Theosophists in the early modernist period, the particular means was abstraction, a sign of the dematerialized, higher world of the clairvoyant Spirit. Theosophy also had a political platform, and this aspect clearly links it to contemporary but much less overtly spiritual movements like Socialism and Anarchism. Theosophy taught that mankind could attain higher psychic states, but these could only be arrived at through a rigorously applied schedule of intuition and meditation, all eventually leading to Cosmic Knowledge. With this universal Gnosis, there would come into being an international Brotherhood of Man.

Of all men, according to the Theosophical creed, it is the artist who has the most fully developed "seeing eye." He is, therefore, more capable than any others of perceiving the hidden spiritual underpinnings of the

Cosmos. Art, according to Theosophical dogma, only warrants that lofty title if it helps man to see the spirit, that great truth, that lies hidden behind the endlessly deceitful illusions of the sense world. Theosophy insisted that modern art—abstraction par excellence—was uniquely concerned with ponderous philosophical and metaphysical problems. Theosophy espoused a truly polemical art. The purpose of the new, equally spiritual and abstract Theosophical art was nothing less than the elevation of society as a whole to new, unparalleled levels of cosmic consciousness. Abstraction was the ultimate art form, and this kind of art, expressive of a mental attitude completely different from past patterns (as was the *antipassatemismo* of the Futurists), was the tangible means to reach the promised social utopia.

One of Dreier's favorite Theosophical authors was Rudolf Steiner (1861–1925).²⁰ Steiner, who later called himself an Anthroposophist, wrote a great deal—most Occultist Messiahs do naturally tend to be prolific scribblers—and from this sprawling mass of Anthroposophical publications only one sweeping statement need be quoted. Steiner's typically resounding Anthroposophist proclamation may most assuredly be taken to represent Dreier's Theosophical views on the holy mission of modern Art. It just might possibly also be taken to represent some ideas to which Marcel Duchamp, Dreier's co-worker in the noble mission of bringing Modernism to America, might have subscribed—even if only in an ironical way. As Steiner proclaimed in his book on “The Social Future” (*Soziale Zukunft*, 1919), during the promised Theosophical Millennium,

Once more an Art will arise, then filled with spirit, it will be an Art in no way symbolical, in no way allegorical, which does not betray its luxurious character by attempting to rival Nature, to the perfection of which it can never attain. Art demonstrates its necessity, its justification, in human life by proclaiming the existence of something of which the ordinary, direct beholding of Nature—*Naturalismus*—can give us no information. Even if the artist's attempt to give expression to something spiritual is but a clumsy effort, he is giving form to something that has a significance from Nature—because it transcends nature.

Once Nature has been transcended, then, says Steiner (just as did Kandinsky!), “for the first time, large numbers of people will feel spiritual life to be a vital necessity, when [through Art] spiritual life and practical life are finally brought into direct connection with each other. Because [only] Spiritual-Occult Science [*die geheime Wissenschaft*, or ‘Secret Science’] is able to throw light on the nature of matter, so will Art, which is born of Spiritual-Occult Science, attain to the power of giving direct form to every chair, every table, to every man-created object.”²¹

It is significant that Arensberg and Dreier, both of whom were knowledgeable students of and ardent subscribers to the Esoteric Tradition, were

the sole financial and moral mainstays of the art of Marcel Duchamp during his first American period. This period is certainly the most important—and cryptic—phase of Duchamp's entire career. A perhaps inescapable conclusion is that the content of Duchamp's art at this time must have reflected the Occultist interests of his patrons. And why not assume this symbiotic relationship? If we were, instead, dealing with the case of a standard Renaissance artist, for instance Albrecht Dürer, rather than a modernist paragon of mental purism, Marcel Duchamp, then the tangible effect upon his artworks of the wishes of his munificent patrons would be taken for granted. But in Duchamp studies, alas, the authorities generally reject the logical, easier explanations of the kind belonging to traditional *kunstwissenschaftliche* publications.

The geographical and art-historical context of the esoteric activities mutually pursued by Duchamp, Arensberg, and Dreier is what is now known as "New York Dada." This was, however, a cultural movement formed completely independent of, and in practice considerably earlier, than the much better known Dada movement in Zürich. William Agee has taken pains to point out the importance of the evidently esoteric Arensberg contribution, and he observes that, between 1915 and 1923, "the salon conducted by Walter Conrad Arensberg included Marcel Duchamp, Francis Picabia, Man Ray and a diverse group of Americans who together formed the center of Dada in this country. . . . The Arensberg circle is in a real sense an historical rarity, an avant-garde which has remained largely separate and apart from our history."²² Agee understands Dada as an anarchic, full-scale attack on bourgeois canons of art and morality. Additionally, he finds that this program had evidently been first announced—in America and not Switzerland—in an article by Benjamin de Casseres that appeared in the July 1910 issue of Stieglitz's *Camera Work*. At that time, de Casseres railed against the "sane and normal" in art and praised the "New Dreamer," the one who "stands there revising all axioms." In the January 1912 issue of *Camera Work*—which appeared four and a half years before the formation of the Dada group in Zürich—de Casseres published another, even louder, anarchistic blast at bourgeois rationalism.

Precociously praising paradox, gratuitous choice, alienation, perpetual instability, and total nihilism, de Casseres noisily announced: "In poetry, physics, practical life, there is nothing . . . that is any longer moored to a certainty, nothing that is forbidden, nothing that cannot be stood on its head and glorified. . . . Anarchy? No. It is the triumph of discrimination, the beatification of paradox, the sanctification of man by man. . . . Nothing which lasts is of value. . . . That which changes perpetually, lives perpetually. . . . I find my supremest joy in my estrangements. . . . I desire to become unfamiliar with myself. . . . I cling to nothing, stay with, am used to nothing, hope for nothing. I am a perpetual minute."²³ De Casseres repeated his rhetorical

anarchist exclamations in the April 1912 issue of *Camera Work*: “All great movements begin with the gesture of hate, of irony, of revenge. . . . There is a re-evaluation going on in the art of the world today. There is a healthy mockery, a healthy anarchic spirit abroad. . . . No art is perfect until you have smashed it!” We know that John Reed, among others, had said much the same thing, but he published his remarks in a left-wing radical journal, *The Masses*. As Agee notes, following this anarchist-grounded salvo from the Stieglitz Circle, beginning late in 1915, thenceforth “everything revolved almost exclusively around those who gravitated to the Arensberg apartment” in New York. In this case, “the catalytic force behind the Arensberg circle, and indeed all [New York] Dada, was Marcel Duchamp who, by the time of his arrival in New York, had reversed nearly every inscribed law of painting.”²⁴

As we already know, the reigning interests in the Arensberg arena were unique. Their sensitive and inner-directed fascination with abstract art, cabalistic cryptography, alchemy, eroticism, and mysticism in general were far different from the evangelical and anarchistic concerns of the Stieglitz group that wanted to politicize art and so to place it within a public arena. The Arensberg group, which supported Duchamp in a very tangible way, and who were dedicated to the interpretation of indecipherable textual esoterica, instead presented a much more secretive or literally occult face. As now appears likely, equally Arensberg and Dreier meant to impose essentially timeless occult systems upon seemingly straightforward modernist materials and perceptions. It is most likely that Duchamp actively participated, even colluded, in these overtly esoteric schemes.

If only because 1915–1923 is the time when Duchamp realized his *Large Glass* (fig. 1), the period of the first New York sojourn must be recognized as the most important episode in his whole life as an artist. Again, there is no question that this key work was mutually patronized (and perhaps even closely advised?) by both Arensberg and Dreier. As Duchamp later explained to Pierre Cabanne, in this grand summation of his entire career, “I was mixing story [*l’histoire*], anecdote (in the good sense of the word) with visual representation while giving [much] less importance to visuality.”²⁵ Obviously, the key to understanding a masterwork that still perplexes scores of learned exegetes is a discovery of its fundamental meaning, the correct identification of that underlying “story” or allegory. As Duchamp also admitted, the scenario or underlying narrative element—*l’histoire*—represented a complete break with the purposes of his earlier work. Now the new aim was what appears to be pseudoscience; as Duchamp put it,

I completely forgot the idea of [Futurist] movement. . . . In the *Large Glass* I tried constantly to find something which would not recall what had happened before. . . . It was a constant battle to make an exact and complete break. . . . I was interested in introducing the precise and exact

aspect of science, which hadn't often been done. It wasn't [however] for the love of [orthodox] science that I did this; on the contrary, it was in order to discredit it. . . . Irony was present.²⁶

At this point, Duchamp told Cabanne that art was no longer of interest to him. Therefore, the new motivation, including the mysterious content (*l'histoire*) of the *Large Glass*, must have been something he and most others would have considered outside the traditional boundaries of art, either past or present. "Art was finished for me; only the *Large Glass* interested me," Duchamp recalled, "from this point of view, it was really a very clear decision: I wasn't trying to make painting, or to sell any. I had [nevertheless] several years of work ahead of me."²⁷

At about the same time in the 1960s, he also explained to another interviewer, Calvin Tomkins, some more details about his actual working procedures. As with the Cabanne interviews, all reference to the real details of the mysterious story or *l'histoire* motivating the laborious execution of his *Large Glass* is conspicuously deferred. Likewise deferred is the issue of innumerable, rather specific references in the *Large Glass* to contemporary technological innovations in the electrical and transportation industries. However, thanks to the meticulous research of Linda Henderson, these concrete allusions—treated as specific iconographic motifs—are now accurately identified for the most part.²⁸ Nonetheless, we are still left in darkness regarding the meaning of the scenario actually propelling the iconographic peculiarities of the *Large Glass*; the fundamental issue thus becomes the all-embracing allegory—the one that Henderson chose not to unravel. To the contrary, my interpretation of the *Large Glass* is one exclusively focused on the allegorical concept initially generating the entire ensemble, so inspiring all those strictly modern pseudoscientific, mostly electrical and automotive embellishments. As we have seen, Alchemy is typically driven by *l'allégorie*. To the contrary, orthodox modernism, particularly the kind propagated by the Puteaux Cubists, resists pictorial narrative and, therefore, its position is defiantly anti-allegorical.

In short, with sublime irony, Duchamp has employed a modernist visual vocabulary to camouflage an underlying, deliciously anachronistic, allegorical content. Hence, his playful physics is *neo*-Alchemy, a strictly contemporary, modernist solution. Like some contemporary writers, Duchamp validates the heavily pictorialized fossil science by inserting it into the modernist, pseudoscientific context of radioactivity, electricity, automobiles, X rays, and nuclear physics. According to Duchamp's later recollection to Tomkins,

All this had to be planned and drawn as an architect would do it. I drew on the wall of my studio with a pencil the final shape, the exact shape of what the *Large Glass* would be, with all the measurements and the

placement of all these things in perspective—old-fashioned perspective, at least for the Bachelor part. When an idea came to me, I would immediately see if I could apply it to the rest of the conception. It all came to me, idea after idea, between 1913 and 1915, and all of the visual ideas were in that drawing on the wall of my studio. So that, from 1915 on, I was just copying.

Then Duchamp happily loses himself in a wholly technical discussion:

I bought two big plate-glass panes and I started at the the top, with the *Bride*. I worked at least a year on that. Then, in 1916 or 1917, I worked on the bottom part, the *Bachelors*. It took so long because I could never [by choice] work more than two hours a day. You see, it interested me, but not enough to be eager to *finish* it. I'm lazy; don't forget that. Besides, I didn't have any intention to show it or sell it at that time [it being already 'sold' to Walter Arensberg in any event]. I was just doing it; that was my life.²⁹

And, as Duchamp told Cabanne in 1966,

I had worked eight years [1915–1923] on this thing which was willed, voluntarily established according to exact plan, but, despite that, I didn't want it—and this is perhaps why I worked such a long time—to be the expression of a sort of inner life. Unfortunately, with time, I had lost my fire in regard to its execution; [by 1923] it no longer interested me, no longer concerned me. So I had had enough of it, and I stopped—but with no abrupt decision; I didn't even think about it.³⁰

Joseph Masheck correctly acknowledges that the *Large Glass*, abruptly abandoned in an uncompleted state in 1923, had a very involved iconographical program, but that this is, as yet, completely unexplained, even inexplicable. In retrospect, Masheck acknowledges that *Large Glass* “is the masterwork toward which so many of the earlier and contemporaneous works [by Duchamp] move. It was the great, single enterprise concurrent with the successive bursts of individual ready-mades. By now, it must be apparent that for so many motifs, mechanisms, and overtones to be wedded together into a single entity involves an incredibly complex iconographical program. That there is a complicated literary overlay [Duchamp's 'story, anecdote'] is explained by the evidence of the [Notes issued in] the *Green Box* (1934).”³¹

After 1923, when the *Large Glass* project and the ideas specifically motivating its laborious execution had lost their creative fire, the rest of Duchamp's long career—from the mid-1920s until his death in 1968—proves to be a long, drawn-out period of what may be called the diminishing returns of the post-*Large Glass* era. For the rest of his life, there was apparently to be only one notable exception to the pattern, the terminal and monumen-

tally scaled work called *Étant donnés . . .* (1946–1968: MD-169, figs. 25, 26). But, as we shall see in chapter 8, fundamentally Duchamp's final *grand oeuvre* was nothing but a reprise of the essentially hermetic content of the *Large Glass*. Nonetheless, as the preceding chapter revealed, evidently Duchamp was commonly, and fully, committed to increasingly esoteric subject matter since 1910—long before he met either the Arensbergs or Miss Dreier. As we may now guess, mutual commitment to that already established esoteric content was a major factor leading to those spontaneous acts of patronage by Marcel's sensitive American patrons. Sometimes, kindred spirits do meet.

By 1918, the *Large Glass* was actually about as finished as it was ever to be. Nevertheless, it was not exhibited until 1926, when it was put on display at the Brooklyn Museum of Art. Katherine Dreier was the driving force behind its first public exposure. This also led to its near destruction, for some careless workmen did a sloppy job of repacking the work in its shipping crate in January 1927. Only when it was again finally taken out of its box for reverent inspection in 1931—nearly five years later!—was it discovered that the *Large Glass* had been smashed to bits due to a jolting journey over the pothole-strewn streets of Brooklyn and Manhattan. Only learning of this misadventure in 1933, Duchamp accepted this apparent disaster with characteristic sangfroid. In 1936, some two years after the publication of his Notes in the *Green Box*, he painstakingly began to piece together the wreckage of his nine-foot-high masterwork. Duchamp remarked that rough handling by brutal teamsters had turned the *Large Glass* into “marmalade”; nevertheless, “it’s a lot better with the breaks, a hundred times better. It’s the destiny of things.”³²

The first drawings, studies, and Notes for *The Bride Stripped Bare by Her Bachelors, Even*, more commonly known as the *Large Glass*, (MD-133: fig. 1), date back to the summer of 1912. In 1934, the artist gathered and published much of this material in a facsimile edition he called *La Mariée mise à nu par ses célibataires, même*, or simply, the *Green Box*.³³ This odd title was due to Duchamp's verdant packaging, colored (probably purposively) like Hermes Trismegistus's famous *Emerald Tablet*. Into this reliquary vessel, Duchamp randomly placed voluminous, fragmentary notes, some 93 facsimiles in all.³⁴ As Duchamp remarked in a letter he wrote in 1934 to the Arensbergs, “I wish to assemble all my notes, which I had written in 1912, 1913, 1914 and 1915, about this [unspecified] theme and to have them reproduced in facsimile.”³⁵ These quirky verbal souvenirs from an already distant past poetically describe and often obfuscate the generally confusing content and purposes of the *Large Glass* and various other satellite works.

Dieter Daniels observes that, without the calculated appearance of the *Green Box*, opportunely surfacing eight years after the sole public appearance of Duchamp's enigmatic key work, “the history of the *Large Glass* would have found an early conclusion and it would have likely only remained an obscure,

scarcely reconstructable, and probably wholly forgotten, bit of art history."³⁶ Only after Duchamp carefully provided his elusive verbal clues, the *Green Box*, did he then proceed to painstakingly reconstruct the broken, and by then mostly forgotten, masterwork to which they referred, the *Large Glass*. Some thirty years later, Duchamp's life-long commitment to his *Large Glass* project was further demonstrated by the revelation of some 289 further notes, some even dating from the late 1960s, that were only posthumously put on public display.³⁷ However, when asked in 1960 by Serge Stauffer if "you have further texts in reserve?" Duchamp then emphatically stated, "No, there is nothing in reserve."³⁸ As we now recognize, clearly that was not a true statement. Moreover, this lie was as seemingly clear-cut as was the often cited statement regarding "les traités d'alchimie que je n'ai lus jamais," such as it had been made by Duchamp to the very same correspondent in 1959!³⁹

Issues of veracity aside, especially because of the complementary Notes, the analytical problem presented by Duchamp's *Large Glass* is probably like none other ever confronted by an art historian. The argument pursued here, via an exploration of the baffling discrepancy between Duchamp's Notes and the visual appearance of his *Large Glass*, posits that Duchamp's sources and theme were nearly exclusively textual in nature. In this case, the texts in question were mainly those recomposed and popularized by the likes of Albert Poisson and Antoine-Joseph Pernety, meaning that it is really all about *l'Alchimie*. On the basis of these texts so laboriously assembled by the artist, which provide a quirky kind of narrative map of the deliciously puzzling iconography of the *Large Glass*, several esoteric and a few strictly alchemical interpretations of Duchamp's cryptic *chef d'oeuvre* have been already published.⁴⁰ Since those earnest analyses have not pleased the Duchamp defense team, for various methodological shortcomings already examined, it seems a new, rather banal approach is called for: forensic or judicial rather than esoteric and ahistorical evidence.

One may begin an extended exposé of the secret textual life of Duchamp's *Large Glass* by postulating a strictly hermetic, but contextually plausible explanation for the very title assigned by Duchamp to his *opera omnia*, deliberately enveloped by a tabular *Green Box*. As before, our essential textual source is Dom Antoine-Joseph Pernety's exhaustive *Dictionnaire Mytho-Hermétique*, explaining that "Hermetic Philosophers assure us that both the materials and the operations involved in the Great Work can not be explained more clearly than was done by Hermes Trismegistus in his *Emerald Table*."⁴¹ Likewise, Duchamp's heterogeneous textual materials are essential for any attempt at deciphering the content of the *Large Glass*; as he once commented, "To see the *Glass* . . . one should consult the book [the Notes] and see them together."⁴² The functional result is a "conjunction."

The essential scenario of the *Large Glass* may be briefly summed up in Duchamp's own words as expressed in the ten-part Note 1, apparently composed in 1913–1914; these thematic motifs are largely repeated in his more abbrevi-

ated Note 66. Since these two Notes constitute the only writings by Duchamp providing comprehensive readings of his Great Work (many other Notes only deal with various component motifs), they need to be quoted at length:⁴³

Note 1

THE BRIDE STRIPPED BARE BY THE BACHELORS.

The two principal elements [are]: 1. Bride; 2. Bachelors. Graphic arrangement: a long canvas, upright. Bride above; bachelors below. The bachelors serve as an architectonic base for the Bride; the latter becomes a sort of apotheosis of virginity.

A steam engine [appears] on a masonry sub-structure on this brick base. A solid foundation: the Bachelor-Machine, fat, lubricious (to develop).

At the place (still ascending), where this eroticism is revealed [sic: *translated*], is where there should be one of the principal cogs in the Bachelor Machine. This tormented gearing gives birth to the desire-part of the machine. This desire-part then alters its mechanical state, which from steam passes to the state of an internal combustion engine. Develop the desire-motor, a consequence of the lubricious gearing. This desire motor is the last part of the Bachelor Machine. Far from being in direct contact with the Bride, the desire motor is separated by an air cooler (or water).

This cooler (graphically) [serves] to express the fact that the Bride, instead of being merely an a-sensual icicle, warmly rejects (not chastely) the bachelors' brusque offer. This cooler will be in transparent glass. Several plates of glass [are put] one above the other.

In spite of this cooler, there is no solution of continuity between the Bachelor Machine and the Bride. But the connection will be electrical, and will thus express the stripping: an alternating process. Short circuit if necessary. Take care of the attachment; it is necessary to stress the introduction of the new motor: the Bride.

BRIDE

In general, if this bride motor must appear as an apotheosis of virginity, i.e., ignorant desire, blank [i.e., white] desire (with a touch of malice), and if it (graphically) does not need to satisfy the laws of weighted balance, nonetheless, a shiny metal gallows could simulate the maiden's attachment to her girl-friends and relatives [and] the former and the latter correspond graphically to a solid base on firm ground, like the masonry base of the bachelor-machine, which itself also rests on firm ground.

The Bride is basically a motor. But, before being a motor, which transmits her timid-power, she is this very timid-power. This timid-power is a sort of auto-mobiline, love gasoline [*essence*], which, distributed to the quite feeble cylinders [put] within reach of the sparks of her constant life, is used for the blossoming [*épanouissement*] of this Virgin who has reached the goal of her desire.

Here the desire-gears will occupy less space than in the Bachelor Machine. They are only the string that binds the bouquet. The whole graphic significance is for this cinematic blossoming. This cinematic blossoming is controlled by the electrical stripping. See the Passage of the Bachelor Machine [Celibate Machinery] to the Bride.

This cinematic blossoming, which expresses the moment of the stripping, should be grafted on to an arbor-type of the Bride. This arbor-type has its roots in the desire-gears, but the cinematic effects of the electrical stripping, transmitted to the motor with quite feeble cylinders, leave (a plastic necessity) the arbor-type at rest.

Graphically, in Munich, I had already made two studies of this arbor-type, and they do not touch the desire-gears which, by giving birth to the arbor-type, find within this arbor-type the transmission of desire to the blossoming in a stripping voluntarily imagined by the desirous Bride. This electrical stripping activates the motor with quite feeble cylinders, which reveals the blossoming in a stripping by the bachelors in its action upon the clockwork gears.

Grafting itself upon the arbor-type, the cinematic blossoming [is] controlled by the electrical stripping. This cinematic blossoming is the most important part of the painting; graphically, [it functions] as a surface. In general it represents the aureola of the Bride, the sum total of her splendid vibrations. Graphically, there is no question of symbolizing this happy phase—the Bride's desire—by a grandiose painting. Only more clearly, throughout all this blossoming the painting will represent an inventory of elements belonging to this blossoming, elements of sexual life imagined by her, the desirous bride.

In this blossoming there shall be no question of bachelors nor of stripping. The Bride reveals herself nude in two appearances: the first is that of the stripping by the bachelors; the second appearance is that voluntary imaginative one belonging to the Bride. Concerning the coupling of these two appearances, of their collision: upon it depends the entire blossoming [or] upper ensemble and crown of the picture.

So, to be graphically developed: first, the blossoming into the stripping by the bachelors; second, the blossoming in the stripping imagined by the desirous Bride; third, from the two graphic developments obtained, find their conciliation, which should represent the "blossoming" without any causal distinction.

[This represents a] Mixture, [or] physical compound of their two causes—bachelor [male] and imaginative desire [female]—un-analyzable by logic. The last state of this stripped Bride [comes] before the orgasm [is represented] which made her decline and expire ([and] will make her do so). Graphically [there is a] need to express [this theme] in a way which is completely different from the rest of the picture, this blossoming.

First: [there is] a blossoming by stripping from bachelors, electrically commanded. This blossoming effect from the electrical stripping, graphically must lead to the clockwork movement (electrical clocks in train-stations); gears, toothed wheels, etc. (to be developed, stressing

the piercing shudder of the big switch). The whole in matt metal (fine copper, steel, silver).

Second: a blossoming by a stripping voluntarily imagined by the desirous Bride. This blossoming must represent the refined development of the arbor-type. It is engendered in branches on top of this arbor-type [and the] branches [are] frosted by nickel and platinum. To the degree that it distances itself from the tree, this blossoming is the image of an auto-car, one which ascends a slope in first gear. The car desires more and more the height of the mountain, and while slowly accelerating, as though exhausted by hope, it repeats its regular engine-strokes in an ever increasing speed, right up to the triumphal snort.

Third: a blossoming crown; it is a compound of the two preceding [stages]. The first blossoming alludes to the engine with quite weak cylinders [and] the second [alludes] to the arbor-type [as a Virgin], of which it is the cinematic development.

The arbor-type has its roots in the desire-gear, a constituent [and] skeletal part of the Bride. The motor with quite feeble cylinders is an external organ of the Bride; it is activated by love essence, a secretion from the the Bride's sexual glands, and by the electric sparks produced by the stripping. [This is] to show that the Bride does not refuse this stripping by the bachelors, [and] that she even accepts it, because she furnishes the love essence and [she] goes so far as to strive towards total nudity by developing, in a sparkling fashion, her intense desire for orgasm.

Therefore: the engine with quite feeble cylinders, a constituent but external organ of the Bride, is the two foci of the elliptical blossoming. The first focus [is situated in] the center of the blossoming by stripping from the bachelors. The second focus [is situated in] the center of the Bride's voluntarily imagined blossoming. The second focus, activating the desire gears (the skeletal part of the Bride), gives birth to the arbor-type, etc.

The second Note, number 66, is considerably more condensed and less repetitious. As Duchamp's calligraphy is also much neater, this obviously represents a later, calmer reconsideration of essential motifs announced in the preceding annotation. This translation produces results quite different from others previously published. With the original French phraseology provided later in my text, it suggests that Duchamp initially introduces a word with one apparent meaning, then often changes that initial meaning (e.g., *temps*, "speed-gear" into "phase-time"; *essence*, "gasoline" into "essence"; *épanouir*, "blossoming" into "brightening"):

Note 66

THE BRIDE SKELETON

The Bride is, at her base, a reservoir of love-essence/gasoline of love, or timid power. Distributed to an engine with weak cylinders, this timid power is put into contact with the sparks of her constant life (a

desire-magneto). Brightened and blossomed, this Virgin has arrived at the concluding stage of her desire.

Along with the sparks from her desire-magneto, the artificial sparks, besides producing an electrical disrobing, must also furnish explosions within the engine with weak cylinders.

The engine with weak cylinders accordingly has two speeds. The first phase sparks from her desire-magneto [and] orders [the appearance] of the fixed arbor-type. This arbor-type is a kind of spinal column and must become the support for the brightening/blossoming, a voluntary disrobing on the part of the Bride. The second phase (with artificial sparks belonging to the electrical disrobing) commands the clockworks; this represents a pictorial translation of the the brightening/blossoming belonging to a disrobing by suitors, and expressed in a piercing shudder of the big switches belonging to electrical clockwork.

The Bride accepts disrobing by the suitors; she even feeds essence of love to sparks belonging to an electrical disrobing. What is more, she assists in a complete nudity, and does so by joining to the first furnace with sparks ([sign of an] electric disrobing) yet a second furnace, with flashings from her desire-magneto.

[*Culmination*] BRIGHTENING AND/OR BLOSSOMING.

From these provocative and initially wholly puzzling fragments, we learn that the forthcoming *magnum opus* was initially—unquestionably—planned along largely allegorical lines. Duchamp emphatically affirms that “the whole graphic significance” of the *Large Glass* is directed towards its upper area, a place where, he states, the Bride undergoes a simultaneously physical and metaphorical *épanouissement*. This term represents a brightening and/or a flowering. The specific iconographic signs of this culminating *épanouissement*—a simile for her *jouissement*, meaning either “orgasm” or “fruition” or “culmination”—are successively: 1. her stripped appearance as a radiant nude: “dans cet épanouissement la Mariée se présente nue”; 2. Her apotheosis within a golden aura: “l’auréole de la Mariée, [c’est] l’ensemble de ses vibrations splendides”; 3. her “crowning”: “l’épanouissement: [c’est] ensemble supérieur et couronne du tableau”; 4. her appearance as a completely “refined improvement of the arbor type”: “cet épanouissement doit être le développement raffiné de l’arbre type.”

The thoroughly bizarre formal title of Duchamp’s *Large Glass* was previously fixed in the artist’s mind. The ongoing theme was, in fact, first proclaimed in a signed and dated pencil drawing executed in either July or August 1912⁴⁴ (fig. 8). According to its inscription, this represents: “Première recherche pour: La Mariée mise à nu par les célibataires.” This strictly pictorial aide-mémoire was executed during the artist’s four-month rambles across Central Europe, which also included a lengthy sojourn in Munich.⁴⁵ The great contextual significance of Duchamp’s residence in the Bavarian capitol remained perfectly clear in the artist’s memory decades later: “My stay in

Munich was the scene of my complete liberation, when I established the general plan of a large-size work [the *Large Glass*] which would occupy me for a long time. . . . From Munich on, I had the idea for the *Large Glass*.”⁴⁶

Other than in its detailed inscription however, the 1912 sketch bears little physical resemblance to the huge magnum opus, the *Large Glass*, which was begun three years later bearing the very same title as the miniscule preparatory drawing. Nevertheless, it certainly does clearly reveal “the idea for the *Large Glass*.” According to Duchamp’s neatly lettered statement, placed in the lower left hand corner of the drawing, this sketch with three radically abstracted figures indeed must represent the “First Investigation for: The Bride Stripped Bare by the Bachelors.”

In Duchamp’s formally obscure drawing, a pair of those bachelors aggressively pirouette around a centrally situated female figure. Similarly, her identity is established by another inscription, according to which she becomes the representation of a “Mécanisme de la pudeur / Pudeur mécanique” (modesty mechanism / mechanical modesty). The two flanking male figures are depicted in the act pointing sharp weapons, looking very much like bayonets or swords, at the chaste female in the center. Viewed within the same interpretive context established for preceding works, namely hermetic emblematics, the bachelors’ wounding and cutting instruments specifically become commonplace symbols of the Fire of the Alchemist. One modern alchemical writer, whose popular publications are already identified as having been intensely studied by Duchamp, was Albert Poisson. In his standard modern textbook on hermetic theory and iconography, *Théories et symboles des Alchimistes: Le Grand Oeuvre*, Poisson authoritatively explained how “the symbols of fire are the chisel, the sword, the lance, the scythe, the hammer, in a word, all the instruments capable of wounding.”⁴⁷

Striking as is this standard “wounding” verbal image, it only represents one essential but peripheral detail; now we may present the decisive proof for Duchamp’s alchemical enterprise. A very specific graphic source for the drawing of 1912, Duchamp’s first research for the *Large Glass*, may be now identified, and in this case the pictorial source material is wholly alchemical in content and function. The basis for this identification involves both a basic *compositional* similarity and, much more importantly, a fundamental *textual* parallelism. The apparent pictorial source for Duchamp’s sketch is an emblematic engraving that had appeared in at least five different, old alchemical publications—and at least one modern one.

It seems this image was first published in 1599 and again in 1602, where it initially appears in Basil Valentine’s often reprinted “Twelve Keys” (*Die zwölf Schlüssel*) (fig. 9). An illustrated Latin translation, *Duodecim Claves*, was published in 1618 by Michael Maier, with improved engravings attributed to Mathieu Merian, and was included in his anthology *Tripus Aureus, Hoc est, Tres Tractatus Chymici Selectissimi*. A French translation of this popular work

with the same engravings appeared shortly afterwards in 1660 as *Les Douze Clefs de Philosophie de Frère Basile Valentin* and once again in 1690. Perhaps the most widely consulted edition of Maier's Latin translation of the *Twelve Keys*, with the same illustrations, was an important alchemical anthology called the *Musaeum Hermeticum* (1678), and the Valentin print also appeared in J. J. Manget's *Bibliotheca chemica curiosa* (1702). However, Duchamp's most likely graphic source was the new French translation of *Les Douze Clefs*, published in 1899 by Chamuel in Paris.⁴⁸

As was so often the case with published alchemical symbolic imagery, the very same picture reappeared later in other works by different authors. In this case, the composition might be recycled with no apparent pictorial alterations—but with a wide range of accompanying textual variations, poetry to prose, and vice versa, all of which, nonetheless, conveyed essentially the very same hermetic message. One example of the kind of textual metamorphoses accompanying our alchemical *Urbild* is encountered in Daniel Stolzius (Stöltz) von Stolzenberg's ingenious picture album describing, in simply stated poetic imagery, the "Alchemical Garden of Delights," *Die chymisches Lustgärtlein* (1624; also called, in Latin, the *Viridarium Chymicum*).⁴⁹ The verses inscribed below the picture appearing in the German emblem book (originally looking just like our fig. 9, and with a text which Duchamp could read) unmistakably reveal a clear-cut thematic relationship with Duchamp's drawing and, likewise, with the content of his later, considerably more important magnum opus (fig. 1). According to Stolzius's poetic text, the often reprinted engraving basically deals with "the garment which is taken off." In this exact replication of Valentine's engraving, the central figure is clearly identified as a hermaphrodite, and this creature was often additionally identified, by means of a standard alchemical symbol placed over its head, as representing "Precipitated Mercury." The contextual significance of the hermaphroditic figure (with or without this attached symbol) as the sign of alchemical Mercury is, however, completely standard.

The traditionally fixed, wholly conventional, and nonvolatile textual meanings of the alchemical Androgyne may be established by reference to Dom Antoine-Joseph Pernety's *Dictionnaire Mytho-Hermétique*:

ANDROGYNE OR HERMAPHRODITE: This is the name which the Hermetic Chemists have given to the purified Matter of their Stone in the stage which arrives immediately after Conjunction. Properly speaking, this is their Mercury, which they call both Male and Female, or *Rebis* [Two-Thing], or a great many other things, about which one may read in the article about "Matter." They so name it because they say that their Matter is sufficient in itself to engender, and so doing that it brings into the world a Royal Child which is more perfect than its parents. When they say that their Material is One, they are referring to their Azoth, and they repeat that Azoth and Fire are all that the Artist needs.

They also state that, nonetheless, it is their Matter that engenders, nourishes and ultimately makes manifest that ever-desired Phoenix, and that it does so without the addition of any foreign matter. It must be made known however that their Matter is composed of two and even of three things: Salt, Sulphur and Mercury. Nevertheless, all three are nothing but the Fixed and the Volatile, and these are what are to be joined and reunited during the course of the operations. The results are solely a kind of matter which they then call “Androgyne,” “Rebis,” and so forth.⁵⁰

The Hermaphrodite of the Hermetic Philosophers was also explicitly identified by Stolzius in his verses as representing “the Bride”—*Die Braut*, meaning the same thing as in the Latin, *Sponsa*—and Duchamp was, of course, similarly to call his corresponding allegorical figure *la Mariée*. As Stolzius’s text also clearly explains—just as do the various texts attached to Duchamp’s *Large Glass*—that such an alchemical Bride is being “stripped for her groom,” so telling the average reader just how to read his picture.⁵¹ (fig. 9). All this business of a strictly hermetic *mise à nu* is clearly but succinctly spelled out in a poem in German that Stolzius called “The Other Key of Basilius.” We recall that Duchamp read German with relative ease, having taken coursework in the language at his *lycée*. What he actually read was:

*Wenn nun die Kleidung hingelegt,
Wird Sol bloss, und nicht mehr anträgt
Diana ihre Kleidung frei,
Dass die eh desto gewünscher sei.
Von zweiten Fechtern hochgehrt
Der Braut Wasser ganz köstlich werd.
Der Streittenden mögen zwar streiten,
Nach dem Kampf auf beiden Seiten
Ein End: Werden sie auf dem Streit
Bringen Kleinodt und grosse Beut.*⁵²

According to the English equivalent, the picture describes the stripping as follows:

When the garment is taken off, then the Sun [alchemical gold] appears; Diana [the Virgin Goddess] no longer wears her raiment; thus, marriage becomes even more desirable. From two noble suitors [or bachelors], both swordsmen, the Bride receives delicious water [Mercury]. These fighters might well fight; once the struggle is, as agreed by both sides, ended, they shall then from this contest bring forth treasure and great spoils.

Besides seeming to demand graphic realization by the cunning art of the contemporary illustrator (fig. 9), this striking textual figure, the one that makes

“Diana ihre Kleidung frei,” unquestionably represents a verbal commonplace in alchemical allegory. Accordingly, and since this point is crucial to our argument, some representative examples may be cited in order to indicate the sheer ubiquity of the hermetic topos of the stripped Bride (Diana) and her ardent bachelors.⁵³

For instance, in a treatise attributed to Philalethes, grandly called *Mercury’s Caducean Rod: or The great and wonderful Office of the Universal Mercury or God’s Viceregent Displayed* (1704), the author reminds the Alchemist that, “if ever you hope to see *Diana* unveiled, he cautions you to beware of Corrosives, which are repugnant principles contained in the same *Chaos*, and are some of those vile Garments which glorious Nature casts off, when she shews herself in her Amours to her Lovers.” Likewise we may read, in an anthology called *Aurifontina Chymica: or, A Collection of Fourteen small Treatises concerning the First Matter of Philosophers* (1680), how:

Nature is not so easily courted, as some fancy: *Chymia est castissima Virgo, plurimos procos habet, quos nunquam in penetralia sua admittit*: [Chemistry is a most chaste Virgin; she has many Rivals, but few are admitted into her Bed-Chamber]. She hath many Waiting-women, and inferiour Attendants, which she deludeth such Suitors [ou célibataires] with, as are unworthy of her: *Multas habet pedissequas, quarum ille caelebris* [bachelors] *iretiti, negligunt Reginam*.

Even earlier, in Michael Sendivogius’s *The New Chemical Light Drawn from the Fountain of Nature and of Manual Experience* (1604), we are told that “this glorious truth [the secret of transmutation] is even now capable of being apprehended by learned and [even] unlearned persons of virtuous lives, and there are [accordingly] many persons of all nations now living who have beheld *Diana* unveiled [so showing] that by a careful study of the working of Nature they may be enabled to lift the veil, and enter her inmost sanctuary.” Nonetheless, as we are warned by Oswald Croll, in his *Philosophy Reformed and Improved in Four Profound Tractates* (1657), “Chymical secrets will never be finger’d by those sluggish, slothfull, or sottish despisers of them, by reason of their indisposition and unfitnessse to manuall operation. . . . To these [souffleurs] admission to the Bath of *Diana* is not to be granted.”

As Stanton Linden has shown, these once standard topoi specifically explain some presently obscure alchemical imagery underlying a well-known poem, “Vanitie (I),” composed by George Herbert (1593–1633):

The subtil Chymick can devest
 And strip the creature [*Diana*] naked, till he finde
 The callow principles within their nest:
 There he imparts to them his minde,
 Admitted to their bed-chamber, before
 They appeare trim and drest
 To ordinarie suitors [or bachelors] at the doore.

According to wholly standard explanations of alchemical terminology contained in Martinus Rulandus's *Lexicon alchemiae* (1612), in a larger symbolic sense the motif called the "Stripping of Diana"—the motif that appeared in Stolzius' poem and is shown in fig. 9—stands for the "Joy of the Philosophers," or *Gaudium Philosophorum*. As Rulandus explains,

The Joy of the Philosophers occurs when the Stone, or Matter of the Philosophers, has arrived at the perfect White Stage, which is called either the Philosophical White Gold, or White Sulphur, or Endica of Morien, or the Swan. Then all the Philosophers say that this is the time of joy, because they behold the unveiling of Diana, and they have avoided all the rocks and dangers of the sea. The *Code of Truth* remarks: "Whiten the Laton, and then destroy your books, for then have they become useless unto you, and will serve only as an encumbrance, a source of doubt and disquietude, when you should experience nothing but joy. When the Matter has arrived at the White State, nothing but clumsiness can prevent the success of the Alchemical Work, and so its conduction towards the Perfection of the Red State, since all the volatile portion is then fixed in such a manner that it can withstand the most active and violent fire."⁵⁴

For a very similar statement paralleling and so explaining the real significance—and probably also the specific textual source—of that "désir aigu de jouissance" experienced by Duchamp's virginal Bride (as recounted in his Note 1: "a sharp desire for orgasm"), once again we may turn to Pernety's *Dictionnaire Mytho-Hermétique*, a work which was itself, as will now become readily apparent to the reader, obviously indebted to Rulandus's *Lexicon alchemiae*. According to Pernety's detailed explanation of the *Joie des Philosophes*,

Once the Stone, or Matter of the Philosophers is approaching the state of perfect whiteness, it then becomes their While Gold, or their White Sulphur, also called the Endica of the Moribund, their Swan. This is what all the Hermetic Philosophers call the time of Joy, for this is when they espy Diana wholly nude [*ils voient Diane toute nue*], so signifying that they have avoided all the perils of the sea. The *Code of Truth* states: "Whiten the brass, and tear to shreds your books; these shall only cause you grief, doubts, dissatisfaction—when you should instead have nought but Joy. They say this because while the Matter is still becoming white you really must be completely inept in order not to succeed in taking it to a perfect red stage, for this is the time when all the volatile material becomes fixed in such a way that it can withstand the most active and most violent kind of fire."⁵⁵

The same picture (fig. 9), again illustrating yet another reprinting of the popular Latin text of Basil Valentine's *Twelve Keys*, was exactly reproduced in

a later and just as standard alchemical anthology, the *Musaeum hermeticum, reformatum et amplificatum* (1677).⁵⁶ As will be recalled, the *Hermetic Museum* was a work often recommended to his readers by Albert Poisson; in fact, it seems to have been something like his own primary text. Once again, the accompanying commentary for the print reads exactly like a very condensed, in fact the original, version of Duchamp's scenario for the *Large Glass*, just as it was explained by Duchamp in his Notes 1 and 66, and such as these esoteric memorabilia eventually appeared in the *Green Box*. As attributed to Basil Valentine, this standard hermetic text clearly explains the strictly allegorical significance of the standard alchemical motif of the Stripping of the Bride. Likewise, it completely reveals the cleverly hidden (*occulta*) meanings of Duchamp's endlessly debated "Mariée mise à nu par les célibataires" (or "ordinaire suitours," as George Herbert called them). In fact, we have already seen the allegorical figure to have been accurately but briefly paraphrased in 1891 by Albert Poisson, who even cited the nice engraving illustrating it (fig. 9)—and we do know that Duchamp was familiar with Poisson's *Théories et Symboles des Alchimistes*. Approvingly cited by various authors, this was a standard alchemical motif which was always understood as a metaphor for the cleansing of the operator's, or Artist's, physical materials.

Later to be paraphrased by Poisson, it reads as follows in my English translation of the original Latin text (and you will again recall the fact of Duchamp's success with his Latin examination, as required for his baccalauréate, *le bac*):

A Virgin brought forth to be married is gloriously attired in a variety of splendid and costly garments in order to please her Groom. His inspection of her raiments internally lights the amorous fires in him. When the Bride must indeed copulate in the carnal ritual, then her various garments are stripped away from her, so leaving the Bride only with that with which she was arrayed by the Creator at birth. . . . So, my friend, note principally here how the Bachelor and his Bride must be both nude when they are conjoined. They must be stripped of their clothes and, thus stripped of ornaments, they must then lie down together in the same state of nakedness in which they were born in order, and so that their seed may not be corrupted by mixing with any foreign matter.⁵⁷

Further proof for Duchamp's knowledge of this particular text is the fact that it, in a close paraphrase along with its accompanying illustration (fig. 9), had been prominently cited in Poisson's *Théories et Symboles des Alchimistes*, a work surely known to Marcel Duchamp.⁵⁸ After 1915, that is once Duchamp became settled in New York and once he became fluent in English, he could have consulted yet another version of this text (also illustrated), produced by a British occultist author A. E. Waite, often cited (in his own write) by Duchamp's American patron and fellow esotericist Walter Arensberg.⁵⁹

As has just been shown, a consistent and internally coherent correspondence—as related in at least three different captions and in spite of certain textual variations (poetry to prose)—has now been established between certain alchemical prints and their respective explanatory texts, all basically repeating or illustrating (fig. 9) exactly the same verbal image. As we also recognize, the texts and corresponding imagery for Duchamp's drawing of the "First Investigation for The Bride Stripped Bare by the Bachelors" (fig. 8) likewise neatly fit into the same traditional textual, even pictorial pattern. In sum, in both Stotzius's *Urbild* (fig. 9) and, centuries later, Duchamp's preparatory drawing (fig. 8), we find two flanking male figures, designated to be suitors, pictured in the act of aggressively lunging and pointing sharp weapons, bayonets or swords, at a chaste but stripped, mechanical figure pirouetting in the center; she, a Bride formerly called "the unveiled Diana," is now labeled "Mécanisme de la pudeur / Pudeur mécanique."

So what is the most likely scenario for this unmistakable motival appropriation? One's best guess is that, during the summer of 1912—when we know that the budding alchemical artist was busy in Munich producing his alchemical aide-mémoire (fig. 8), and as just as he was pouring through the German text of Kandinsky's recently published *Über das Geistige in der Kunst*—either in a public library or more likely at a secondhand bookshop, Duchamp came across an old, vividly illustrated publication.⁶⁰ Most likely his timely *trouvaille* was a copy of either Basil Valentine's *Die zwölf Schlüssel*, (1599 or 1602: *Duodecim Claves*), especially in the new French edition of 1899, and/or Daniel Stolzius's *Die chymisches Lustgärtlein* (1624). Perhaps he was even so fortunate as to acquire the standard illustrated alchemical anthology, the *Musaeum Hermeticum* (1677), recently translated (1893). Or, just as plausibly, in Munich he found these old publications reproduced with both prints and texts in one of the many nineteenth-century historical studies, some including facsimile reproductions, published in Germany and dealing with Alchemy.⁶¹ In any event, I have no doubt that Duchamp also had taken with him to Munich his lightweight copy, measuring six by eight inches, of Poisson's nicely illustrated *Théories et Symboles des Alchimistes*. However it may have happened in actual detail, if the credibility of this unmistakable text-to-picture connection is admitted (figs. 8, 9), then one need no longer entertain serious doubts that much of Duchamp's post-1912 efforts with his impressive *Large Glass* must have been largely derived from standard alchemical iconography and symbolism.

This single example of a close thematic parallelism—showing a concrete connection between an illustrated textual motif found in various old alchemical publications and a particular motif designed by Duchamp (figs. 8, 9; likewise figs. 3, 4, 5)—is, however, certainly not unique in the unraveling dossier of Duchamp's *Large Glass*. Further evidence supporting my initial hermetic hypothesis appears in numerous other correspondences occurring in

later works. Again, the critical procedure is simple: once the operating principle, Hermeticism, the identity of which is itself based upon the evidence for some iconographic and many textual or allegorical borrowings, has been credibly established, then one only needs to search through standard alchemical publications (meaning those easily available around 1911 or 1912) for the evidence pointing to other plausible connections and appropriations of same kind.

Within the wholly traditional alchemical context established here for a drawing by Duchamp executed in Munich in July or August 1912 (fig. 8), we may now begin to examine the case of two other works, finished oil paintings, executed under identical conditions. These are, in fact, those two works cited by Duchamp in Note 1: "Graphiquement, à Munich [en 1912], j'ai déjà figuré cet arbre-type dans deux études [à l'huile]." The two works in question were called, respectively, *Le Passage de la Vierge à la Mariée* (MD-74), and, in a more finished version, just *Mariée* (MD-75).⁶² These were preceded by two pencil studies with a stridently insistent title: *Vierge n° 1* (MD-72), and *Vierge n° 2* (MD-73).⁶³ Once again, Duchamp had, over half a century later, a convenient explanation for these works, all based on the curious theme of "The Passage of the Virgin to Bride," and once again his comment seems as evasive as his previous explanations for his King and Queen series. According to Duchamp,

Abandoning my association with Cubism, and having exhausted my interest in kinetic painting, I found myself turning towards a form of expression completely divorced from straight realism. This painting [the *Mariée*] belongs to a series of [the earliest] studies made for the *Large Glass* [which eventually] I began three years later in New York. Replacing the free hand by a very precise technique, I embarked on an adventure which was no more [a] tributary of already existing schools [of modern painting]. This is not the realistic interpretation of a "Bride," but my concept of a bride, expressed by the juxtaposition of mechanical elements and visceral forms. My stay in Munich was the scene of my complete liberation, when I established the general plan of a large-sized work [the *Large Glass*], which would occupy me for a long time on account of all sorts of new technical problems to be worked out.⁶⁴

Nonetheless, in this case, and particularly within this artistic context dealing with a "Virgin," who herself represents the first stage of a mysterious but inexorable passage leading to her apotheosis as "Bride," the latent existence of a strictly alchemical framework seems unquestionable. Once again, Pernety tells us all that we really need to know about the symbolic virginal subject matter—and also all we really needed to know about what appears to be Duchamp's rather unique understanding of the same parthenogenetic topic. According to Pernety's circumstantial but wholly standard alchemical explanation of just such a *Vierge*,

She is the Moon, or Mercurial Water of the Philosophers. She is so called once she has become purified of impure and arsenical sulphurs; it was to these materials that she was "married" within her mine. Before being so purified, she was called a "Prostituted Woman" [*Femme prostituée*]. Adepts have given this Virgin the name of Beja. According to the author of the *Secret Work of Hermetic Philosophy*, without tainting her virginity, this Virgin was enabled to enter into a state of "spiritual" love [*un amour "spirituel"*] before uniting herself in marriage to her brother Gabritius, and this bond was made possible since spiritual love only ended up making her even more white, purer and livelier than ever before, and so she became even more fitting as the object of marriage. So you must take, as he adds, a winged virgin, one who is most comely. Penetrated and animated by spiritual sperm belonging to the first male [*pénétrée et animée de la semence spirituelle du premier mâle*], nonetheless virgin she yet remains, even though she may come to conceive. You shall recognize her by her pink cheeks; now join her to a second male, fearing no adultery. Once again she shall conceive, and this is due to corporeal seed coming from the second male. She shall eventually bring into the world a child, the Hermaphrodite, and this is the one who shall become the root of a race of most powerful Kings.⁶⁵

The particular relevance of this citation from Pernety's *Dictionnaire* as a constructive means of defrocking any number of Duchamp's subsequent verbal ruses (*échappatoires*) can hardly be overemphasized. In short, according to this authority, by being methodically stripped of her impurities, *this* kind of "Virgin" is one who is being specifically prepared for alchemical "Marriage." While in this essentially erratic preparatory stage, she remains only a "prostituted Woman." During this same lustful, or "unpurified" stage, she will wantonly choose to give herself over to sexual acts with not one, but two, or possibly even more "bachelor" suitors, a "first male" and a "second male," or even more. This promiscuous Virgin, for she is not yet a Bride, has as yet "no fear of adultery," nor for that matter any worries about "tainting her virginity." Nonetheless, all of this only represents a more detailed version of hermetic knowledge about the alchemical Virgin which we have already acquired, due to our identification of the texts directly corresponding to Duchamp's first pictorial prototype for the *Large Glass* (figs. 8, 9), representing the equally mechanical and modest Unveiled Diana. Pernety's textual authority however adds a new but pertinent dimension to Duchamp's Virgin. According to the next part of his bizarrely erotic scenario, the alchemical Virgin only achieves purity at that moment when, paradoxically, she gives herself over to an overt act of Incest, namely with "her brother, Gabritius," identified by Pernety (among others) as being the "most proper object of her marriage."

There is yet more to come: the exact synonym in French for *Mariée* (MD-75) is *Épouse*. Once again Pernety provides for us the correct alchemi-

cal definition of *Épouse* and, once again, this explanation seems altogether in accord with the emerging hidden significance of Duchamp's narrative development of a series of drawings and paintings describing his own allegorical transformation of a Virgin into a Bride. For our purposes, the four significant articles in the *Dictionnaire Mytho-Hermétique* dealing with the strictly alchemical *Épouse* are the following, found one after the other on the very same page:

BRIDE: This [*Épouse*] means either Mercury or the mercurial and volatile Water of the Philosophers; this Bride is what they have also called Sister, or Woman, or Beja, and so forth. A BRIDE ENRICHED BY THE VIRTUES OF HER HUSBAND: in Hermetic Science these are the kind of expression which Solomon made use in his *Code of Truth*, where it stands for the passage of the Stone into whiteness. Solomon additionally states that Power, Honor, Glory, Force, and Royalty were given to this Bride. He adds that her head was adorned with a crown [*sa tête est ornée d'une couronne*] with rays ending in seven stars, and also says that it was written on her garment that "I am the only girl-child of the Wise, and remain wholly unknown to the ignorant." ESPOUSE (to) [signifies] any action by which the Fixed and the Volatile belonging to the Philosophical Matter are reunited in such a way that they can not again be separated. Their marriage rites begin during the period called Dissolution, and their final union is consummated during the period called Fixation. GROOM: This [*Époux*] just means Philosophical Gold.⁶⁶

Both the preparatory drawing for and similarly Duchamp's final painting of this apparently wholly hermetic Bride (MD-72, MD-75) are hugely abstract in their graphic realization. This heavy dose of formal distortion and machine like schematization naturally makes the identification of another possible graphic source—if any—very difficult. Nevertheless, in both images, there are certain essential clues allowing us to propose a generic iconographic equivalent belonging to the repetitious hermetic tradition. The artist's titles, by themselves, tell us that both images deal with a "Virgin Becoming a Bride." The pictorial patterning employed by Duchamp does indicate that his symbolically freighted female figure is probably standing upright and centered within his balanced composition. Following these slim but significant leads, one begins to look for a certain standard type of allegorical figure in alchemical art, one who must additionally be textually described as representing a hermetic Virgin-to-Bride composite, and who must likewise appear in a stiffly hieratic arrangement posed in the center of the graphic composition. This is, as it turns out, another very common arrangement in hermetic book illustration.

For instance, an early example of a standard hermetic iconographic type—clearly labeled *Mercurius Philosophorum*—happens to appear in a famous sixteenth-century illustrated manuscript of the *Turba philosophorum* kept

in a Parisian library (Bibliothèque Nationale), where Duchamp could conceivably have seen it (if not, then he could have seen this standard motif reproduced in a book). As explained by Jacques van Lennep, this particular miniature belongs to a series of paintings depicting “les noces du roi et de la reine aptères.” “After having bathed together, the royal couple copulate in order to engender the Child King”; then, Lennep continues, “once the [sexual] act has been carried out, they stretch themselves out in a ditch, in which they die and then rot away. These dramatic nuptials conclude with the apparition of the [single figure of the] Mercury of the Philosophers, who now appears in the guise of a resplendent nude woman surrounded by an aureola of glory.”⁶⁷

Whereas we appear to have presently established the broader outlines of the wholly traditional iconographic type often referred to by Duchamp, “The Mercury of the Philosophers” (*Mercurius Philosophorum*), we must now work to narrow the subject matter even further. As the painter specifically stated, that (now apparently alchemical) figure, which he said he employed no less than twice in oil paintings executed in Munich, was “cet arbre-type.” This more differentiated, or “tree-type,” Mercury of the Philosophers was herself frequently illustrated, and when given a specifically human (rather than arboreal) shape, was then often known as *Pandora* (All-Giving). One such illustration, among several others, was initially published in (and subsequently often reproduced) Hieronymus Reusner’s *Pandora: Das ist, die edelste Gab Gottes, oder der Werde und heilsame Stein des Weisen* (Basel, 1582) (fig. 10).⁶⁸ Essentially matching all the necessary textual components of Duchamp’s “Vierge à l’épanouissement,” in Reusner’s print the nude manifestation of the Perfected Mercury of the Alchemists stands hugely erect upon a solid “masonry base,” namely two alembics. Resplendently *mise à nu*, and again following Duchamp’s description, she appears crowned in hermetic triumph, and a widely branching tree directly sprouts from her regal headgear. She is flanked by symbols of the Sun and Moon, so revealing her to represent a synthesis, or *coniunctio*, of Sulphur and Mercury. A flock of birds also takes wing in order to indicate the timely release of finally emancipated, volatile alchemical materials.

The present citation of once wholly familiar alchemical imagery (fig. 10), which illustrates what has been said in words many more times before and will be said since, neatly solves the problem of the first two conditions of Duchamp’s heroine, just as laid out with some precision in his Notes 1 and 66. Having thus quickly identified the essential significance of this Virgin-to-Bride’s “mise à nu[deness]” and also the complementary symbolic evidence of her surrounding *auréola* or nimbus, we may now deal in more detail with those other questions raised in Notes 1 and 66. In this case, our focus shifts to the matter of her “crowning,” and also why she should be simultaneously depicted, very specifically, as an anomalous “tree-type.”⁶⁹ Following the same

analytic procedures as used before, we find that, once properly posed, these questions present so few problems that one is left, once again, wondering just why Duchamp's typical hermetic motifs had not been so identified many years beforehand by art historians.

Again the solution to Duchamp's verbal riddles is mere hermetic *ludus puerorum* ("child's play"): one really only needs to cite Pernety's exhaustive *Dictionnaire Mytho-Hermétique*. As we read in the preceding chapter, Pernety explained that "TREE [*Arbre*] is also the name which the Hermetic Philosophers have given to the Matter making up the Philosopher's Stone," and whereas "the Great Tree of the Philosophers means to signify their Mercury, their Tincture, their Principle and their Vine," accordingly "it also stands for the working of their Stone." This was, of course, the same symbolic "*arbre-type*" that Albert Poisson illustrated in his popularized explanations of the *Théories et Symboles des Alchimistes*. Likewise, these we may take to be the same conventional meanings that were attached by Duchamp to his "arbor-type Virgin," which verbally already "resembles" standard alchemical illustrations of Mademoiselle Mercure (fig. 10). The complementary matter of a certain *Couronne* oddly, seemingly inexplicably given by Duchamp to his resplendent Virgin is likewise explicated in some detail by Pernety:

CELESTIAL CROWN (*Corona Caelica*). In the terminology of Alchemy, this [*Couronne*] signifies Spirit of Wine. Nonetheless, when Raimundus Lullius and other Philosophers are speaking of Spirit of Wine (of white or red wines) they must never be taken literally. By this terminology they instead are referring to the Red Mercury and the White Mercury that they employ for the Great Work. ROYAL CROWN: this is the Perfected Stone in its red stage, at which point it is ready to be made into the Stone of Projection. VICTORIOUS CROWN: this means the same thing as "Royal Crown." Nonetheless, some Philosophers have given this name to the Alchemical Matter when it begins to come out of the putrefactive stage, signalled by the color black. Accordingly, they now say that Death has been overcome, and that their King has triumphed over the horrors of the tomb and is now leaving the empire of shadows.⁷⁰

A somewhat trickier problem is presented by what Duchamp acknowledged to be the key action of his entire tableau, meaning that wholly mysterious process of *épanouissement*. When one consults a standard, not hermetic, French dictionary, it is learned that the verb *s'épanouir* means "to open out, to blossom, to bloom, to flower, to light up." Accordingly, *épanouissement* means a dramatic flowering, one which is, simultaneously, most likely to be accompanied by appropriate light effects. As we shall shortly see, the most likely source for Duchamp's understanding of *épanouissement* was found in some strictly modernist publications, and particularly as the term was associated with the mysterious Fourth Dimension (see chapter 7), where

the word was used to describe a neo-alchemical process producing significant “*combinaisons chimiques*.” Being essentially modern, neither term, *épanouissement* nor *s'éponouir* (figurative noun or active verb), is to be found in Pernety's exhaustive *Hermetic Dictionary*. Nonetheless, there we do find a whole string of articles dealing with alchemical “Flowering,” a crucial phase so denoted by a variety of colorful but symbolic “Flowers.” What Pernety has to say about these verbal alternatives to *épanouissement* is, once again, wholly in accord with the emerging hermetic meanings latent in Duchamp's Notes 1 and 66. The explanations sequentially given by Pernety for alchemical “Fleurs” read as follows:

FLOWERS. Hermetic Philosophers give this name to the spirits which are enclosed within the Alchemical Matter. They very specifically recommend that these should always be exposed to a slow fire, and this is because those spirits are so exceedingly swift [*vifs*] that they might either shatter the vase, however strong it may be, or they may just burn themselves up. They also mean to announce by this name of “Flowers” all the different colors which arise in the Matter during various operations belonging to the Great Work. In this way, the FLOWER OF THE SUN stands for the reddish-lemony color, which is what comes before the ruby color, and there is also the Lilly, standing for the color white, which is the one coming before lemon. THE PHILOSOPHER'S FLOWER OF SALT: This indicates the Perfection of the Stone. FLOWER OF GOLD: This means the same as the Mercury of the Philosophers, likewise the lemon color. FLOWER OF WISDOM: This is their Perfect Elixir in its white or red stage. FLOWER OF THE ANGLER: This means Philosophical Mercury. SATURNIAN FLOWER: See the article on “Flower of the Angler.” FLOWER OF THE AIR: In alchemical terms, this means the Rosary. FLOWER OF THE WATER: This is the Flower of Salt. FLOWER OF THE EARTH: This is both the Rosary and the Flower of Salt. FLOWER, simply put, or, otherwise, FLOWER OF BRONZE: This stands for the Matter of the Great Work as it reaches the end of Putrefaction; this is the time when it begins to whiten. FLOWER OF CHEIRI: Essence of Gold. FLOWER OF THE SUN: This represents a sparkling [*étincellante*] white color, one which is even more bright than snow itself; this appears once the Sun darts his rays downwards: This flower stands for the Matter of the Hermetic Operation when it is coming upon the white stage. FLOWER OF KNOWLEDGE: This is the Perfect Elixir in its red stage. FLOWER OF GOLD: This stands for the fixed body of the Magisterium. This should not be understood to stand for other [hermetic] flowers, meaning tinctures [*teintures*] extracted from vulgar gold; instead, it only represents Philosophical Gold, which in turn stands for the fixed part of the compound of the Magisterium. By means of this, the other volatile part [or Mercury] becomes fixed, and only by a single cooking, ordered prudently and strictly according to the obligatory regimen. For this reason the lemon color, which follows the white stage, is called “Flower of Gold.”⁷¹

Given those series of *étincelles*, or electrical sparks, so frequently emitted by Duchamp's Virgin in her bumpy textual passage from Virgin to Bride (besides other factors announced in Notes 1 and 66), I would specifically propose that the specific swift and alchemical Flower represented by her *épanouissement* is the "Flower of Sun" (or Gold). This was a phase characterized by, says Pernety, a certain "blancheur *étincellante* et plus brillante"; it is, after all, "celle de la matière de l'oeuvre Hermétique parvenue au blanc." To better establish this particular point, namely the apparent fact of Duchamp's knowledge of this particular entry in Pernety's *Dictionnaire* dealing with the hermetic Flower-Colors, further evidence may be advanced. As the artist himself states in his Note 17, dealing with the "Breeding of Colors," this process takes place in a "hot-house" (*en serre*). Inside this heated and vitreous horticultural enclosure one specifically witnesses what Duchamp called the "Mélange des fleurs de couleur; c'est-à-dire, toute couleur encore à son état optique." Duchamp then proceeds to designate various chromatic floral apparitions appearing to him, "sur plaque de verre, couleurs vues par transparence," and these include "de rouges, de bleus, de verts ou de gris accentués vers le jaune, le bleu, le rouge ou de marrons appuris (le tout en gammes)." In short, just as Pernety claims, "by this name of Flowers, [one designates] all the different colors which arise in the Matter during various operations belonging to the Great Work."

From alchemical Flowers, we may turn to consider the matter of some oddly eroticized "gasoline." As Duchamp repeatedly tells us, his Virgin-Bride is "un réservoir à essence d'amour." All the standard English translations would make the key word "gasoline." No one has ever defined Duchamp's viscous "Essence of Love" as instead representing alchemical "Sperm" (see MD-62, *Sad Young Man on a Train*, and the *explication hermétique* that goes with his portrayal; see chapter 4). However, now much better apprised of Duchamp's arcane but easily accessible textual sources, we may now question a conventional wisdom that puts the term within a strictly modernist, or *automobile*, context. As one reads sequentially in Pernety's *Dictionnaire Mytho-Hermétique*,

ESSENCE. This [Essence] is the Matter of the Philosophers as it arrives at the stage signalled by the appearance of the white color. The Adepts have also given this Essence the name of White Essence; see the article on "QUINTESENCE." ESSENCIFY (to) [Essensifier]: This means to cook and then digest the Matter of the Great Work in order to prepare from it the Essence of the Hermetic Chemists. QUINTESENCE: This [Quintessence] is the specific magnetism [*le magnétisme spécifique*], the bond, the Sperm of the Elements [*semence des éléments*], the composition of pure elements. The latter represent, according to the Breton (in his *Spagyric Philosophy*), expressions which are only synonyms for the same thing, for the same matter or subject, and this sperm is the substance in which form resides. This thing is a material essence, within which the

heavenly spirit is enclosed, and within which it operates. One can define “Quintessence” as a fifth principle of the [alchemical] mixtures, a compound of that which represents the purest aspects within the Four Elements. QUINTESSENCE OF THE ELEMENTS: This [*Quintessence des éléments*] is [again] the Mercury of the Philosophers . . . having as its object the composition of Hermetic Mercury. . . This vinous spirit is absolutely mineral, and not at all vegetable in character, and is *acute* or penetrating, and so is rendered even more powerful with vegetable materials, following whichever practise one wishes to put into action; so says Raimundus Lullius himself. FIFTH NATURE: This [*Quinte Nature*] is the Dissolving Mercury of the Philosophers.⁷²

As we could now also believe, it was Pernety’s reference to “le magnétisme spécifique” which caught Duchamp’s poetic fancy, so launching into being its updated mirror-image mechanism, namely a “magnéto-désir,” a mechanical motif in turn suggesting even more bizarre modernist machinery, that is, “un moteur-désir,” “un moteur à puissance timide,” also demanding an opposing “machine-célibataire,” and so forth. If so, we finally have some solid, almost archaeological evidence for the way that Duchamp’s verbal fantasies actually proceeded.

Following all these consistently complementary textual explanations, we may now again state, with little or no hesitation, that the proper name for Duchamp’s endlessly puzzling Virgin-Bride composite figure is really *Mercurius Philosophorum*. How she fits into the overall scenario is also easy enough to stipulate by reference to a single sentence from Note 1, according to which, overall, the *Large Glass* represents “Mixture, [ou] composé physique des deux causes: célibataire et désir imagitatif.” In sum, the “Bachelor” or *mâlique* component is *Sulphur*, and that opposing, imposing, and self-willed “imaginative desire” belongs exclusively to Sulphur’s predestined hermetic mate, *Mercury*, which is inevitably *femelle*. As Duchamp also states here, the main effort is to consummate “leur [ré]conciliation”—and, in this context, that means nothing less than alchemical Conjunction, the *coniunctio oppositorum*. Once that symbolic, but typically elusive, erotic coupling uniquely occurs, then the Hermetic Virgin-turned-Bride finally achieves a resplendent and conclusive state of *l’épanouissement*.

Following these disclosures, the next matter to attend to (as in Note 1) is the identity of that “architectonic base for the Bride,” an ambiguous construction which is placed “below,” but which is additionally very graphically described by Duchamp as looking like a “steam engine on a masonry substructure [or] brick base, [providing] a solid foundation.” This is one of the easiest motifs to identify, that is, once you turn to your handy copy of Poisson’s *Théories et symboles des Alchimistes* and look up “athanor” (fig. 5, lower right-hand corner; see also fig. 4, bottom, and fig. 10 bottom). Here Poisson comments that:

This engraving is found in the *Hermetic Museum* and it shows the *Athamor* [or Furnace of the Alchemists] and the principal symbolic animals belonging to Hermeticism. This particular *Athamor* has a somewhat fanciful structure but it does include the main parts: the [brick-base] tower surmounted by a dome, the sand bath, and the Philosophical Egg. The serpent enclosed within the Egg represents the Matter of the Stone. The lion [shown below the *Athamor*] is the symbol of Fixed Sulphur; the eagle is a symbol of Volatile Mercury; and the serpent and the dragon are symbols of the Alchemical Matter. The crow represents the black color; the swan the white color, the peacock represents all the colors of the rainbow and, finally, the phoenix symbolizes the red color [those birds shown here in fig. 10].⁷³

Elsewhere, at somewhat greater length Poisson further explains and illustrates the actual construction of an *athanor*:

The Crock and the Egg are to be lodged within a special furnace named “*Athamor*.” This word comes from the Greek, *athanatos*, meaning immortal, and this is because the Alchemical Fire, once begun, must burn until the very end of the Great Work. . . . The real *Athamor* is the one which was known to the first European Alchemists, Albertus Magnus, Roger Bacon, Arnold of Villanova, and it is a kind of reverberating furnace which can be dismantled into three parts. The bottom part contains the fire; it was pierced with holes to allow access of air and it revealed a door. The middle section, also cylindrical, provided three projections arranged into a triangular pattern, and it was upon these which the crock containing the Egg rested. This part was pierced through its diameter by two opposed holes, each covered with crystal disks, so allowing one to observe what was happening within the Egg. Finally, there was the upper part, plain and spherical, which consisted of a dome or reflector which reverberated the heat. Such was the nature of the *Athamor* then generally in usage. The principal dispositions remained invariable, and whatever variations the Alchemists may have introduced remained without any significance. Accordingly, one will find illustrated in the *Mutus Liber* [as in fig. 4 here] a truly elegant *athanor* in the shape of a crenelated tower.⁷⁴

From this, one concludes that Duchamp’s *foyers* and his *moteurs* represented imaginatively updated substitutions for the ancient *Athamors* of the Alchemists. The new twist is that, rather than by “fire” (*feu*), Duchamp’s alchemical materials are now cooked by “love essence” and an electrical “desire magneto.”

Likewise, Poisson conveniently illustrates—twice—and then thoroughly explains the underlying meaning of yet another mysterious motif providing the title for Duchamp’s Note 66 (and previously unexplained by modern scholarship), namely the artist’s *La Mariée Squelette*. Plate XIII in the *Théories et Symboles des Alchimistes* shows two compositionally disparate engravings with skeletons

illustrating the very same idea, namely the Putrefaction of Philosophical Mercury, an allegorical figure also signifying for Duchamp his *Vierge-Mariée*. According to Poisson, the engraving of a skeleton represents the “End of Putrefaction, as symbolized by the skeletons and the crows. Vapors are released which condense; the Matter is quite agitated, as is so indicated by crows flying in all directions.” The explanation for the second cut is even more terse: “Putrefaction is symbolized by the *squelette*, [also by] the black sphere and the crow.”⁷⁵

In the titles belonging to those abstractly rendered works from Munich depicting Virgins and Brides (MD-72, 75), Duchamp significantly chose to employ the term *passage*. In fact, the same word also appears, and provocatively, in many of the Notes referring to covert actions occurring in the *Large Glass*. One commonplace explanation would have it that “passage” is, of course, a commonly employed technical term in painting (*même à l’anglais*). Nonetheless, although apparently never before recognized as such, “passage” is (also) a standard hermetic term, and so it appears in various modern explanations of alchemy as published in French. The active verb (in French) leading to any “passage” is, of course, *passer*. A few relevant citations from Poisson’s *Théories et symboles des Alchimistes* should make this point perfectly clear, and also lay to rest the question of a strictly alchemical significance pertaining to the term as used by Duchamp.

Speaking of the eternally circular configuration of alchemical operations, Poisson observes that “la génération des métaux est circulaire: on passe facilement de l’un à autre [état] suivant un cercle.”⁷⁶ More to the point, Poisson defines *all* the principal alchemical operations as being themselves “passages”: “Basile Valentin n’admet que deux opérations, la solution et la coagulation, c’est-à-dire, des passages *succésifs*, de la Matière de l’état de repos à l’état de mouvement.”⁷⁷ Not surprisingly, we may now observe that Duchamp also refers exactly to a similarly allegorical “état de repos à l’état de mouvement” (Note 124), for which: “nous déterminerons les conditions du Repos instantané (ou apparence allégorique) d’une succession, d’un ensemble, de faits divers. . . . Pour repos instantané, faire entrer l’expression extra-rapide.” Just as for Poisson, for Duchamp the significance of such terminology is largely *allégorique*. In any event, the issue of Duchamp actually using Poisson as a textual source seems now proven: Q.E.D.

At this point we may briefly consider further evidence for the frequent appearance of citations or paraphrases derived from Poisson’s *Théories et symboles des Alchimistes* that appear within Duchamp’s Notes, and, therefore, throughout the complex (and, I think, deliberately confusing) ideational fabric of his *Large Glass*. The first time the suggestion that Duchamp drew upon this particular book of alchemical lore, Poisson’s *Théories*, was strongly put forth was in 1977 by a perspicacious Swedish scholar, Ulf Linde.⁷⁸ At that time, Linde briefly observed how Duchamp had described a certain part of the *Large Glass* called the “Glider,” which, according to the artist, contains a

“Water-Mill,” fabricated “*en métaux voisins*.” Although the provocative phrase *métaux voisins* actually does not appear as such in Duchamp’s voluminous Notes, it did in fact end up as the title for the artist’s *première recherche* actually to be painted upon a large glass plate.⁷⁹ Executed in Paris between 1913 and 1915, this semicircular rendition of a wholly unprecedented “Glider Containing a Water-Mill in Neighboring Metals” bears a telling inscription on the reverse side of the thick, hinged glass plate. As carefully inscribed by Duchamp, this is a “glissière / contenant / un MOULIN à Eau (en métaux voisins) / appartenant à / Marcel Duchamp /—1913–14–15—.” As far as Linde knew, the *only* place this distinctive phrase had ever appeared in print (that is, before Duchamp) was within a certain quotation given in Poisson’s *Théories*: “*Les métaux voisins* ont des propriétés semblables; c’est pour cela que l’argent se change facilement en or.” Poisson had concluded his comment by citing as the source for this statement, translated by himself from Latin into French, “Albert le Grand: le Composé des composés.”⁸⁰ Therefore, Linde’s firm conclusion was that, “il suffit, pour expliquer l’alchimie du *Grande Verre*, d’admettre que Duchamp a lu un seul livre: *Théories et Symboles des Alchimistes*, d’Albert Poisson, publié à Paris en 1891.” As we must now allow, *D’accord*.

As it turns out, just one year earlier, in 1890, Poisson had published yet another important alchemical digest, the *Cinq Traités d’Alchimie des plus grands philosophes*, which, oddly, seems never before cited by any alchemically inclined scholar investigating Duchamp’s thoroughly enigmatic career. Here, in Poisson’s translation (the first ever in French) of the “Compound of Compounds” attributed to Albertus Magnus, is where we find the real *Urtext* for Duchamp’s absolutely singular citation of some bizarrely “neighboring metals.” As translated by Poisson, the great Albert observes that, “In our *Treatise on Minerals* we have, in effect, just clearly demonstrated the fact that the generation of metals is circular, meaning that they can pass with ease from one state to another by pursuing circular paths, and that such *neighboring metals* [*les métaux voisins*] will have similar properties. For this very reason, silver changes into gold with greater ease than into any other metal.”⁸¹ As one sees from the distinctive shape of Duchamp’s premier glass-painting (MD-101), indeed “the generation of neighboring metals is [literally shown to be semi-] *circular*.” From this observation, one additionally concludes that, by 1913 (if not earlier, in 1911), Duchamp probably was also consulting a set of alchemical primary documents published two decades before, namely the ones making their Gallic *première* in Albert Poisson’s *Cinq Traités*.

Another odd term apparently appropriated by Duchamp from Poisson’s modern alchemical publications is *apparition*. As in so many similar instances, ignorance of the originating text has, of course, confused scholars as to Duchamp’s real verbal intentions; these were, at least at this early stage of his career (as I believe), largely hermetic, and it appears that his verbal *jeux* were to become evermore better informed in the strictly alchemical sense.

This key word—*apparition*, *apparitions*—appears in various places in Duchamp’s literary remains, most notably in Notes 36, 141, 143, 144.⁸² In order to explain its usage, Duchamp broadly explains (Note 36) that: “En général, le tableau [du *Grand Verre*] est l’apparition d’une apparence.” In Note 143, he defines the matter with a bit more detail: “L’apparence [d’un] object sera l’ensemble des données sensorielles usuelles, permettant d’avoir une perception ordinaire,” whereas “l’apparition . . . est comme une sorte d’image miroir.” It is the “couleurs natives dans l’apparition [qui] déterminent les couleurs réelles à changements dus à l’éclairage . . . par teinture physique.” Moreover, “l’objet émanant [une couleur native] est une apparition” (Note 141). To sum up, for Duchamp “appearance” is one thing—the way we ordinarily perceive things—whereas an “apparition” is something quite different, a quirky *image miroir*, “mirror-image,” of reality.

Therefore, a Duchampian apparition is, strictly speaking, the manifestation of certain symbolic colors which are solely brought into being by the physical applications of certain *teintures*, “tinctures.” Any object emanating such tintured colors becomes an apparition. All this, nonetheless, had been stated by Albert Poisson somewhat earlier, and much more clearly:

The progress of the two Works, the little and the Great, was identical, except that the little magisterium stopped at the *apparition* of the color white whereas the Great Magisterium was pursued until the *apparition* of the color red. . . . Fermentation is the operation which follows the *apparition* of the red color. . . . Finally comes rubification, characterized by the *apparition* of the red color which indicates that the Work is perfect. Using this kind of classification, which is based on the succession (or successive *apparitions*) of various colors, one can [today] restore all the operations that had been imagined by the [ancient] Alchemists.⁸³

Expanding further upon Linde’s original and quite isolated observation, one is enabled to cite several more, but certainly not all (for the initial point seems proved) of Duchamp’s apparent paraphrases from Poisson’s text. I now have no doubt but that Duchamp repeatedly handled Poisson’s *Théories*, a slim paperback book that only cost, new, five francs in 1891—and a second-hand copy would have, of course, cost must less in 1911 or 1912. In fact, we may now even believe that the same book by Poisson, *Théories et Symboles des Alchimistes*, had even been obliquely referred to in Note 28, treating the symbolic equivalents of colors which, for not being really real, are never made visible: “Pour le dictionnaire chercher des équivalents de couleurs, lesquelles ne se voient pas. ‘Théorie’.” Elsewhere (Note 24), Duchamp says that again he must “Se servir de ce dictionnaire pour la partie écrite du verre”—“Use this *dictionary* for the written part of the *Large Glass*.”⁸⁴ On the basis of our preceding textual exegesis, we may assume that the *dictionnaire* specifically referred to by Duchamp in this example was none other than

Dom Pernety's *Dictionnaire Mytho-Hermétique*, or, equally, the handy "Dictionnaire des symboles hermétiques," attached as an appendix to Poisson's *Théories*. A few more examples, but not all, pointing to an entire series of Poisson-Duchamp textual connections are better relegated to a note, so placed to placate any still skeptical readers.⁸⁵

Another bit of motival minutiae is the matter of a metaphorical "mirror," a subject appearing in various places in Duchamp's relentlessly odd Notes. In this case, we need only cite once again his statement that "l'apparition est comme une sorte d'image miroir." In this case, the real meaning is probably not just narrowly alchemical but instead broadly *esotérique* or forthrightly *occulte*. For occultist writers flourishing during the fin de siècle, the mirror image—*l'image miroir*—was a tangible sign—an apparition—of a superior, but largely invisible, world paralleling the real world of discredited materialism, which reflects "in negative," or as a "shadow," that superior world uniquely perceived by occultist sensibilities. For this conclusion we find tangible support in Papus's comprehensive and often reprinted *Traité Élémentaire de Science Occulte* (1897). It suffices now to quote the relevant passages, which the reader should understand to represent very much conventionalized materials, for these thoughts had been reiterated by many other esoteric authors. According to Papus,

In Nature there equally exists, that is according to Occultism, a completely invisible counterpart, and this is encountered alongside those objects and forces which strike upon our material senses [in the physical world]. . . . The astral plane is encountered within a metaphysical region which is otherwise impossible to perceive [by our material senses] and which can only be perceived by reason alone. . . . Everything was first created in principle within the divine world, and that means as potential being, and as such it is itself analogous to thought in man. This principle then passes into the astral plane, and this is where it manifests itself "in negative" [*en négatif*]. It is not however the exact image of the principle which is manifested; instead it is the mold [*c'est le moulage*] of this image. Once the mold has been seized upon [by the occult imagination], creation "on the astral plane" is then brought to conclusion. . . . The [invisible] astral plane can be thought of as a mirror-image of the divine world [*un miroir du monde divin*], one reproducing a negative image of the principle ideas, which are themselves the origin of all future physical forces. But Occultism also teaches that, while everything, or all beings, do project a shadow upon the strictly physical plane, likewise everything [in the physical world] must project a *reflection* on to the astral plane.⁸⁶

This particular statement by Papus, itself only a "reflection" of many similar ones commonly expressed by numerous occultist writers during the Symbolist period, should also remind Duchamp scholars of the avant-garde artist's quirky

renvoi miroirique, a motif now particularly associated with his mysterious fourth-dimensional experiments (to be further analyzed in chapter 7).

What was actually described in Duchamp's Notes 1 and 66 does not, however, really look like what was eventually pictorially realized in the *Large Glass* (fig. 1). In fact, those of Duchamp's Notes that eventually did get around to dealing with the actual visual specifics of the tableau, at least such as we see it today, are quite different in character. As a rule, they deal with individual or autonomous motifs that, in effect, do not involve the kind of allegorical, or anthropomorphic, personifications that presently inform us of all the details involved in the hermetic *coniunctio oppositorum* so forthrightly announced in Notes 1 and 66. When pictured in a forthright manner, that allegorical subject looks like Duchamp's *Spring* (fig. 3)—but that forthright manner is what one expects from youthful, even juvenile work. One might therefore suggest now that these two allegorical Notes, 1 and 66, represent archaeological, verbal evidence for an earlier iconographical program intended for the *Large Glass* that, although never wholly rejected, was not to become tangibly visible in pictorial elements actually executed by Duchamp after 1913.

In short, the only pictorial remains of Duchamp's original (*Urbild*) iconographic scheme for the *Large Glass* are now to be found in the Munich corpus (fig. 8, plus MD-69, MD-70, MD-72, MD-75). What was instead pictorially carried out after that date, at least after 1915 when Duchamp left France, is something quite different. In short, what we now see is a more modernist look inspired by the new technologies especially celebrated in Duchamp's American refuge.⁸⁷ In executing what we may call the second, or New York, phase of the *Large Glass*, Duchamp radically shifted from allegory and into specifically physical or mechanical, but still essentially alchemical depictions of various laboratory operations belonging to a typical execution of the Great Work. As we shall soon discover, in spite of an often modernist appearance, these were the very same *opérations laboratoires* described in various old hermetic treatises, including some translated by Albert Poisson into modern French in his *Cinq Traités*.

We may begin the second phase of our extensive investigations into the mechanics of the *Large Glass* by enumerating its component parts such as they may be seen today. Given the complexity of the Notes, any description of the sequence of its contents, no matter how lengthy, remains somewhat conjectural due to the provocative interchangeability of Duchamp's ideas and imagery. Nevertheless, an authenticated graphic aide-mémoire does exist. In 1965 and 1966 Duchamp executed an uncaptioned etching called *The Large Glass Completed*. From this a British artist, Richard Hamilton, later worked up a labeled diagram, and to this, in 1977, Jean Clair restored the original Duchampian terminology in French (fig. 11; see fig. 1). This diagram provides us with a kind of handy terminological map by which to fix in a

quasi-geographical manner the disparate and fragmentary utterances of the *Green Box* upon the physical reality of the *Large Glass*, such as it exists today. It also shows the situation of various motifs, signalled by dotted lines, that were planned, but never actually executed by Duchamp.

From the labeled diagram it can be seen that between the upper Bride panel and the lower Bachelors panel there was traced a horizon line. The latter element was first clearly indicated in Duchamp's carefully rendered perspectival study of 1913 (MD-82).⁸⁸ In this pencil drawing, which the artist called his initial "definite plan, a blueprint for the *Large Glass*," all the orthogonals correctly converge on a single vanishing point, placed in the exact center of a ruler-generated horizon line. As Duchamp's graphic arrangement makes clear, the Bachelors exist below, on Earth, while the Bride floats somewhat amorphously above the horizon, or in Heaven. Again, the basic disposition appears to recapitulate the famous opening injunction of the *Emerald Tablet*: "Ce qui est dessous est semblable à ce qui est dessus." The bonds (*les liens*) between "that which is below and that which is above" represent the ever ascending, metaphorical action of a gradual stripping of the Bride, meaning, as we now understand, the essential steps for the eventual reproduction of *Mercurius Philosophorum* (see figs. 9, 10). It is this process that Duchamp himself referred to, at least initially, as an "allegorical appearance or allegorical reproduction" (Note 124).

This stripping is done, *en détaille*, by a series of *opérations* based on *séparation*, namely the systematic separation of a series of already formed matter from just found matter: "Pour écarter le tout-fait en série du tout-trouvé—L'écart est une opération" (Note 52). Duchamp also gave his grand opus a subtitle, "retard en verre," a slowed action within a glass container. He also explained that this subtitle merely represents "a way of succeeding in no longer thinking that the thing in question is a picture," and that this nonpicture really deals with the actors' "indecisive reunion" (*leur réunion indécise*: Note 7). In Note 36, he says that his allegorical scenario is to be contained "within a sphere or into a transparent cage," and this is what is to become the specific recipient for "colored liquids . . . chemical reactions" (*réactions chimiques*: Note 8). Moreover, "the ensemble of the picture represents . . . a reality [only made] possible by distending a bit the laws of physics and of chemistry" (Note 35). Each object, also including the various "[al]chemical reactions" contained within this *vas mirabilis* is endowed, says Duchamp, with its own "éclairage intérieur," and, "as a result of its chemical composition, it becomes endowed with phosphorescence. . . . To sum up, the color-effect of the entire ensemble must represent the molecular appearance of matter possessing a luminous fire-box" (Note 35). In this case, the mental picture of a *foyer lumineuse* that immediately comes to mind is, once again, the glassy Philosopher's Egg, resting upon the solid masonry base of an Alchemist's Athanor (fig. 10; see also figs. 4, 5).

Turning again to the labelled diagram of the *Large Glass* (fig. 11), we see, following the arrows, that the narrative progression begins in the lower left-hand corner of the Bachelors' panel, bumpily proceeds along a zigzag course to the right, then suddenly leaps up, diagonally ascending into the lower left corner of the Bride panel, rises from there eventually to culminate more or less with a hugely symbolic *épanouissement* centered at the very top of the entire ensemble. Following the standard occultist pattern, one begins below, gradually aspiring upwards, towards the putative astral plane. The Bachelor panel on the bottom, where narrative progressions of the various *séparations* begin, comprises various kinds of sharply defined metallic machinery, the main purpose of which is, Duchamp claims, to "make love." Furthest left are nine reddish-brown forms called either the "Male-ish Molds" (*Moules mâliques/malics*) or, occasionally, "Matrix of Eros" (*Matrice d'Éros*) (Note 92). This motif represents a sequential improvement or progress of a certain "illuminating gas" (*gaz d'éclairage*) in its designated ascents and fluid dischargings (Note 92), also including its production-reception by the Malic Molds.

These heterogeneous Males—specifically named in Note 91 as professionally representing a Priest, a Gendarme, a Peace Officer, an Undertaker, etc.—are all gathered together in certain "Cemeteries of Uniforms and Liveries" (*Cimetières des uniformes et livrées, à la Flamel and Poisson, as we shall see*). These assorted vocational types are, however, physically absent in a symbolic graveyard, being only represented in absentia by their *livrées creux*, that is, "hollowed-out shells" (or professional apparel). From these molds each malish body is separately released or liberated, and so "they are each waiting to be given their color" (Note 95). Their number, nine, was arrived at according to Duchamp's hermetic "ideas of threes," "a sort of triple cypher" ($3 \times 3 = 9$). From the top of each Malic Mold there sprout as many "Capillary Tubes" (*Tubes capillaires*). Their shapes conform to the contours of certain previously conceived "Standard Stoppages" (*Stoppages étalon*: MD-94), supposedly arrived at by pure chance. Running towards the center of the *Large Glass* and laid over the Malic Molds like large open compasses, the Capillary Tubes finally converge upon seven "Sieves or Umbrellas" (*Tamis, Ombrelles*).

Placed in front and between the Cemetery and Sieves is a huge metallic apparatus with various names: "Water-Mill/Chariot/Sled/Glider" (*Moulin à eau-Chariot-Traineau-Glissière*: MD-101). This contraption is fabricated from, according to Duchamp, "neighboring metals," and the real significance of *les métaux voisins* has already been adequately explained to us by Albert Poisson, with considerable help from Albertus Magnus. The grinding machinery is set into motion by a "Water-Fall" (*Chute d'eau*), described in Note 125 as "a sort of jet of water arriving from afar in a half circle over the Malic Molds." In Note 128 the Water-Mill appears to activate a "Chocolate Grinder"

(*Broyeuse à chocolat*: MD-93) placed in the very center, just below the Sieves. The connective unit between the two Mills, one supplying power and the other a physical product, is a certain “Clasp” (*Agrafe*), which just happens to be “made from matter of oscillating density” (Note 129). The Sieves emit gaseous and liquefied matter which proceeds in wholly circular movements, just as would happen in an athanor (figs. 4, 5). The immediate destination of this volatilized material, now splashing downwards, is towards various devices that remain unfinished in the *Large Glass*, but which were described by Duchamp, especially in Notes 98-104. These motifs include a “Pump” (*Pompe*), and this leads to a “Toboggan,” itself leading to assorted machinery, variously including some “Flow-Charts” (*Plans d’écoulement*), a “Splasher” (*Éclaboussure*), and the “Shatterer” (*Fracas*). At this point, the over-heated materials pursue a vertically ascending path, passing straight upwards through the “Pierced Weight” (*Poid à trous*: unexecuted) and the conjoined “Occulist-[Eye]-Witnesses-Occulist’s Charts” (*Témoins oculistes-Chartes d’oculiste*), finally exiting the lower Bachelor Panel via a “Boxing Match” (*Combat de boxe*: unexecuted).

This terminology is, of course, wholly confusing—and *it must be so*. The Alchemists had always stated that the mob of vulgar non-Adepts, i.e., Us (*nous, même*), must be left to their collective ignorance. What really matters, for Duchamp as much for the Alchemists, is the progress of the Opus Magnum, meaning the cooking and physical transformation-transmutation of various kinds of alchemical Matter introduced by the Artist-Operator. Following a deliberately confused path concocted in the Adept-Artist’s Notes, we can now give a resumé of just what *really* was occurring in the lower part of his *Large Glass*.

In the initial movement from the Cemeteries to the Water-Fall, the Illuminating Gas becomes (Notes 98ff.) “solidified and cut up into flakes (*paillettes*).” Duchamp additionally states in Note 105 that he allowed “Powder” (*Poussière*, but probably not “Dust,” as it is commonly translated) to “breed” (or be cultivated, elevated, even educated: *élever*) on some “Powder-Glasses” (*Verres-Poussières*) placed on top of his Sieves; the elevation process took some six months and this made the Sieves become dark or mottled. This is also the Note where Duchamp remarks that “hermétiquement = Transparence,” meaning that “hermetically [the process] equals transparency.” The task is then to look for the disparities: “Différences chercher.” Note 107 announces that “wrong side out” (*à l’envers*), the intrinsic property of the Powder may represent “the name of the metal or something else.” This makes perfect sense, but only if you are manipulating the right kind of textual materials.

Pernety appears to provide the proper context for an explanation for the employment of such “Powder,” shown by Duchamp to be “bred” upon his *Large Glass* and so projected into the future. Duchamp’s “dust-powder” must be Pernety’s strictly alchemical *Poudre*, of which there are various sorts:

POWDER OF PROJECTION: This [*Poudre de Projection*] is a product of the Hermetic Work, meaning a powder which, once projected upon imperfect metals in fusion, transmutes them into gold and silver, once, that is, the Work has been pushed into the white or red stages. Look up our article on *Philosopher's Stone*. BLACK POWDER: This is the Matter of the Wise in putrefaction. WHITE POWDER: This is the Matter of the Work when it becomes fixed in the white stage. TO MAKE INTO POWDER: This means to dissolve the Gold of the Philosophers. Nicolas Flamel says that this dissolution reduces this Gold, really meaning Sulphur, into a fine powder, and this is as tiny as atoms which dance in the rays of the Sun.⁸⁹

Following Pernety's advice to "look up the article on the Philosopher's Stone," we finally realize the absolutely crucial significance of Duchamp's *Élevage de poussière*:

PHILOSOPHER'S STONE: This is a product of the Hermetic Work, and it is also what the Hermetic Philosophers call the *Poudre de Projection*. The Philosopher's Stone is commonly regarded as a pure chimaera and, likewise, those people who do search for it are looked upon as fools. This disparagement, as the Hermetic Philosophers explain, is an effect produced by God's righteous judgment, for He will never allow that such a precious secret becomes known to evil persons and ignorant people. Not only do the wisest and most celebrated of the modern Alchemists refuse to regard the Philosopher's Stone as a chimaera but they do indeed pursue it as though it were a real thing. STONE: In the terminology of Hermetic Science, this [*Pierre*] refers to that which is fixed and which will never evaporate in the face of fire. . . . There are three kinds of Stones. The Stone of the First Order is Philosophical Matter which has become perfectly purified, and so becomes reduced into a pure mercurial substance. The Stone of the Second Order is the same Matter, now cooked, digested and fixed into incombustible Sulphur. Finally, the Stone of the Third Order is the same Matter, now become fermented, multiplied and pushed to the last perfected stage, which is that of a fixed, or permanent and tingent, tincture. . . . Alchemists never at all called a "stone," for it bears no resemblance to rocks; rather they have so named it because it is able to resist all the most violent attacks by fire; only in its resistance to fire is it like rocks. It is an impalpable, highly fixed powder; it is heavy and has a pleasant odor, and that is why it is called the *Poudre de Projection*, and not the "*Pierre*" of Projection.⁹⁰

We may now, with Duchamp's reluctant help, make an interpretive passage from alchemical "powders" and "stones" to Alchemical Matter itself. In Notes 100 and 101, we learn more about Duchamp's esoteric transformations of elemental Matter. As the artist explains,

From the top of each malish mold gas passes along the unit of length inside an elementary section tube and, by a phenomenon of extraction [*d'étirement*] within the unit of length, the gas finds itself congealed, or solidified into the form of elementary rods [*baguettes élémentaires*]. . . . Each of these rods, under pressure from the malish-mold gas, emerges from its tube and is broken up, due to fragility, into unequal flakes. . . . The gas is thus cut into bits, each flake retaining in its smallest pieces the malish tincture [*la teinte mâlique*]. Freed at the moment of exit from the tubes, it tends to rise. The flakes are halted by the umbrella-trap [*piège des ombrelles*] in their ascension [first] by the first umbrella or sieve [*tami*]. The sieves (six probably) are semi-circular, pierced and semi-spherical, umbrellas. The holes in the sieve-umbrellas should give the appearance of the shape of the eight malish molds, produced schematically by their eight summits (a polygonal-concave plan) and by controlled symmetry. . . . Changes in the state of the flakes . . . result from a consecutive passage through the sieves. Due to the dominant ascensional concept, there is elemental liquid dispersion . . . maintaining the character of a liquid through the instinct for cohesion [etc.].

More of this apparent nonsense about “elemental liquid dispersion” is encountered in many other Notes. No matter; the basic scenario seems to have had its previously published source, and, once again, that literary precedent is (albeit creatively garbled to a huge degree by Duchamp’s poetic transmutations) to be found in Pernety’s *Dictionnaire Mytho-Hermétique*. In this instance, our real subject is nothing less than “matter” itself, *la Matière*:

MATTER. In the terminology of Hermetic Philosophy, this [*la Matière*] signifies the subject matter of the physical [versus philosophical] exercises of this Science. . . . Its object is, therefore, the spermatic seed of the body, and this is the First Matter of the Alchemists. Within this *materia prima* there are distinguished a malish seed [*la semence mâle*], which retains form, and the female seed [*la semence femelle*], which is the matter best fitted to receive this form. This is the reason why, when the Alchemists are speaking of their First Matter, most commonly they refer to the female seed and this is what they particularly speak of when they say they mean to join one to the other [*l'une jointe avec l'autre*]. Then they say that she has everything which is necessary for him—except Fire, meaning a certain external agent which Art alone can provide for Nature. . . . The first Matter of the Alchemists, once it becomes stretched out [*éloignée*], then becomes a ponderous water that is produced from a mercurial vapor; in the nearer form [*la prochaine*] it then becomes a mercurial water, but one which does not at all moisten your hand. . . . Everybody knows that things are only destroyed by contraries; so it is with Sulphur, which gives [initial] form. You must make use of Mercury in order to dissolve the Sulphur. After this dissolution, a bit of Sulphur is added in order to coagulate, and so to fix the Mercury. By so

doing, one consummates the Alchemical Marriage within that vessel [*on en faisant le Mariage dans le vase*] which is deemed proper for it. . . . The majority of Hermetic Philosophers say that everything has for its principal constituent a soapy water, meaning a compound of two substances; the one is saline and the other oily. The latter is called “Chaos” and it is set to receive any form it can become. Chaos is what God had initially divided into two parts, into gross and subtle waters. The first Water was viscous, oily or sulphurous, and the second was saline, subtle and mercurial. . . . Sulphur works upon Salt by agglutinating it and so it gives it form. Salt works upon Sulphur by dissolving it and putrefying it. One is joined to the other in proportionate quantities, and together they constitute a viscous and vitriolic Water, and this is the First Matter made by Nature and Art—*la Première Matière de la Nature et de l’Art*.⁹¹

Once we turn to Pernety’s much shorter article on “Chaos,” we then find a perfect explanation for the properly chaotic nature of Duchamp’s bizarre, literally “confused” alchemical scenario, agitated and demonstrably moving up and downwards (see fig. 11). According to Pernety’s explanation,

CHAOS signifies “confusion” and “blending.” According to the Ancient Philosophers, Chaos was the Matter of the Universe before it came to receive specific form. By analogy, Philosophers gave the name of “Chaos” to the Matter of the Great Work in the state of putrefaction, and they did so because at this chaotic time the Elements, meaning the basic principles of the Stone, are found in complete confusion, so much so that no one knows how to recognize them. This “Chaos” is developed through volatilization, and this bottomless Water gradually allows sight of Earth as the humid parts are sublimated at the top of the vessel. This is why Hermetic Alchemists believed themselves empowered to compare their Great Work, meaning that which occurs during their operations, to the gradual evolution of the Universe following Creation.⁹²

However, it additionally turns out that a large number of the specific terms employed by Duchamp to designate individual motifs (or contraptions) inserted into his Bachelor panel—namely: “Chariot,” “Eau,” “Gaz,” “Mâle” [*mâlique*], “Matrice” [*d’Éros*], “Moulin,” “Poids,” “Tamis,” “Verre,” etc.—were all previously described by Pernety, and all under the very same names, and all these are, *bien sûr*, treated as familiar hermetic symbols. All these nonsense words have, therefore, a standard and strictly alchemical significance, and this the interested reader can easily look up for him/herself in Pernety’s *Dictionnaire Mytho-Hermétique*.⁹³ As a mundane result, there is now much less mystery inherent to the greater part of Duchamp’s *Large Glass*.

Let us, however, deal in detail with just two of these odd motifs, both much discussed in the Duchamp literature, namely the Cemetery of Uniforms, etc. and the Chocolate Grinder. As before, our task is to root out their

previously unacknowledged textual sources, thus to restore their apparent accompanying alchemical significance.

The first motif, Duchamp's "Cimetière," actually appeared, illustrated, as the frontispiece for Poisson's *Théories et Symboles des Alchimistes*, and its acknowledged source was a hugely celebrated work by "N.[icolas] Flamel—*Explication des figures du cimetière des Innocents*" (fig. 12). Containing his extended symbolic interpretations of the famous print reproduced by (among others) Albert Poisson, as first published in 1612, Flamel's illustrated pamphlet was only forty-three pages long. As in the case of the "Cimetière" of Duchamp's *Large Glass*, according to Flamel's text (p. 50) likewise some of his personages are professionally designated. Besides "Gendarmes" (à la Duchamp), there also appear "un Roi," "des Soldats," "petits Enfants," "les Mères," "des Innocents," and others. The importance of the print itself, specifically as incorporated into the Flamel publication—and as recognized later by Albert Poisson—is double: 1. it remains the only record of the appearance of the medieval tympanum erected in the Cemetery of the Innocents in Paris; 2. for an uninitiated layperson however, the tympanum itself contains nothing that would be necessarily interpreted as alchemical.

Nonetheless, according to Poisson's neo-alchemical explanation of these famous "Hieroglyphs from the Cemetery of the Innocents,"

It is the body, the spirit and the soul, otherwise the Matter of the Stone, which are shown here to be figured like men and women dressed in white; these are the ones who are raised up, resuscitated from their tombs, in order to symbolize the revivifying whiteness which only comes after death, here meaning the black phase, *putrefactio*.⁹⁴

This brief description of certain allegorical figures dressed in various white garments who are brought back to life in order to symbolize termination of the initial putrefactive operations of the Great Work seems wholly in accord with the narrative context of hermetic operations begun below in Duchamp's Bachelor panel, itself evidently representing a strictly lower, material plane of initial existence.

Much more complicated is the essential matter of Duchamp's *Broyeuse à chocolat* (Chocolate Grinder), a large piece of obviously symbolic machinery situated at the very center and bottom of the Bachelor panel (fig. 11). Its significance within the *Large Glass* project is attested to by its initial appearance, in 1914, as an independent, highly finished painting (MD-93).⁹⁵ This shapely *Broyeuse à chocolat* marks the reappearance of a theme previously explored by Duchamp three years before, in 1911, as is established by reference to the oil sketch depicting a *Moulin à café* (MD-61), which has already been analyzed in chapter 4 for its potential hermetic message. As before, the key operation is grinding, such as that action might take place in a mill, and, as we read earlier, Pernety says that whereas "*Broyer* refers to the

cooking of the Alchemical Matter," any "Moulin stands for the Universal Dissolvant of the Hermetic Philosophers." In a strictly physical sense, this centrally situated Chocolate Grinder by Duchamp appears moreover to operate as a functional analogue to a pharmacist's mortar and pestle. Pernety's statements defining the hermetic significance of grinders and mills, while sufficiently explicit, do not however account for the possibly symbolic role of Duchamp's "Chocolate," a term which, alas, appears neither in Pernety's nor in Poisson's publications.

Duchamp's Notes, as usual, provide more hindrance than help in making sense of, in this particular instance, his obviously symbolic, soft brown substance, *le chocolat*. Note 140 states that it comes from an unknown source ("venant on ne sait d'où"), but is only deposited "en chocolat au lait"—that is, somewhat like milk-chocolate—after its grinding: "se déposerait après broyage." It is in fact (or merely in tortuous Duchampian fancy) "the Bachelor [who] grinds his chocolate himself." Since our chocolate maker is himself a "célibataire," one naturally takes him to be a *frustrated* suitor. In French slang (according to the 1991 *Larousse Dictionnaire de l'argot*), "être chocolat" does in fact signify a state of frustration; also (and somewhat more specifically) it signifies a person about "to be taken in," "cheated," and "deceived," as in a game of chance ("faire le chocolat = Joueur dupé"). He who "ends up chocolate" (*à la fin est chocolat*) is a dupe, a victim, one left holding the bag, or, to put it much more vulgarly (*à la américain*), "left in deep shit," that is, anyone "être dupé, privé de quelque chose." Likewise, to "grind black" (*broyer du noir*) signifies abandonment to a mood of sad reflections (*à des réflexions tristes*).

In sum, perhaps more to the point of an unmasking of Duchamp the Chocolate Maker is the meaning ascribed by the *Larousse Dictionnaire de l'argot* to *chocolat* as a sign of a "pretend dupe who lures or takes in the public" (*fausse dupe qui appâte le public*). Nonetheless, we are told by the artist himself (Note 140) that Duchamp's Chocolate stands for the "Principle (or adage) of Spontaneity," and this spontaneous operating principle is what "explains the gyrating movement of the grinder." In Note 141 the *chocolat* is presented as an "object composed of luminous molecules." In Notes 142–145 however, it is made perfectly clear that this esoteric *chocolat*, perhaps more so than any other substance appearing in the *Large Glass*, is one of Duchamp's most peculiar apparitions. That notwithstanding, as we already know by way of Albert Poisson—who did admit to *his* alchemical proclivities—that term *apparitions* really means a certain scheme of "classification, basée sur la succession ou apparitions successifs des couleurs, [selon laquelle] on peut ramener toutes les opérations qu'ont imaginées les alchimistes." This much seems relatively plain. But the rest, a very specific alchemical identification of Duchamp's Chocolate, must rest upon informed guesswork.

We do, however, know three important facts about this elusive material: that it is soft and brown, that it had been produced by, or from a human

being (“he made it himself”), and that it was generated—and tenaciously remained—at the very bottom of the *Large Glass*. I will therefore just call it “shit,” and that particularly inelegant term—*Merde*—was in fact cited various times by Duchamp, and especially in Note 51, where it is directly, perhaps properly likened to “Art.” A nicer way to call this brown, smelly, and soft substance—like milk-chocolate!—which is produced by the human bowel is *Faeces*, and this is precisely the term used by Pernety himself:

FAECES: This is a term belonging to the Spagyric Science which was taken from the Latin. It signifies filth, lees and dregs, impurities, slime, ordure, excrement [*crasse, lie, impuretés, limon, ordure, excrément*], and all the more gross, impure and foreign parts which become precipitated towards the bottom of vessels. These may be otherwise called “residue,” particularly when one is dealing with certain liquids, like wine, which become purified by themselves.⁹⁶

We also read in Duchamp’s Notes about certain physical and tangible (vs. allegorical and metaphorical) operations that take part in the overheated Bachelor panel. In this case, Duchamp’s descriptions seem somewhat more physical in character than most of what has been already quoted from Pernety. In short, where did Duchamp derive such physical specificity about these *opérations hermétiques*? Again, the answer has to be a handy, published book on alchemy, preferably one in French. In this case, the most likely textual source was Albert Poisson’s *Cinq Traités d’Alchimie*. In order to establish this particular point, I need only quote a small portion of Poisson’s complete translation of, for instance, of a pamphlet known as “Le Composé des Composés d’Albert le Grand” (now revived in my English translation). Evidence has already been advanced (in regard to “Glider”: MD-101) to suggest that Duchamp had studied this particular alchemical text either in 1912 or in 1913, at the latest.

As it turns out, the fourth chapter of Albertus’ *opusculum hermeticum* happens to deal with the subject of “The Sublimation of Mercury,” and it also happens to make repeated mention of the pseudo-milk-chocolate, or *faeces*, encountered in the initial phases of an alchemical operation. It reads as follows:

Get for yourself [advises Poisson] a pound of pure mercury freshly dug from a mine. Next, take some Roman Vitriol and some calcinated, ordinary table-salt. Grind and thoroughly mix these together. Put these last two materials into a large glazed earthenware crock. Place this upon a slow fire and keep it there until the matter begins to melt and to flow. Then take your freshly mined mercury and put it into a long-necked vessel. Proceed to pour out the mercury, drop by drop, on top of the fused vitriol and salt. Stir all this together with a wooden spatula; do so until the mercury becomes completely devoured, until no trace of it remains. Once it completely disappears, then dry out the remaining

matter upon a slow fire; do so the whole night long. The next morning you must take the now fully desiccated matter and you will proceed to finely grind this upon a stone. You shall now put the pulverized materials into a sublimating vessel, and this is called an aludel. This allows you to sublimate according to the Art. . . .

Now make a little fire for four hours. This must chase away all the humidity from the mercury and vitriol. After complete evaporation of the wetness, stoke the fire so that the white and pure matter of the mercury becomes separated from all its impurities; this operation requires another four hours. You will know when sufficient time has elapsed by introducing a wooden rod into the sublimating vessel. Lower this into the upper aperture and down into the matter itself, ascertaining whether the mercurial white matter is ready to blend together. . . .

Now build up the fire in such a way that the white mercurial matter gets carried away above the *faeces* [emphasis added] and so that goes up into the aludel. Four hours later, burn some more wood to get a blazing fire; now both the base of the vessel and the residue within it must turn red. Continue in this manner until there remains just a bit of white mercurial substance adhering to the *faeces*. Now the force and violence of the fire will finally separate the parts. . . . Mark well how by this operation you will have removed two impurities from Mercury. First, you will have taken from it all its superfluous humidity; second, you will have ridded it of its impure earthy parts, those that were left in the *faeces*. In this way you will have sublimated the mercury into a bright-colored and half-fixed substance.⁹⁷

And, according to the scenario presented in the Notes, that is exactly just what did happen in the Bachelor panel of Marcel Duchamp's *Large Glass*.

Having established easily accessible, published precedents for most of the particulars for the dual scenario, equally allegorical and physical, belonging to the bottom half of the *Large Glass*, we may quickly dispose of the rest, meaning the upper half belonging to the Bride, which itself seems to represent a kind of esoteric, but textually conventional, astral plane (see fig. 11). Having exited from the Bachelor panel at the so-called Boxing Match, what we may take to represent the still-cooking and now completely volatilized alchemical Matter takes metaphorical wing and so enters into the domain of the Bride at a sector named after an anomalous "Gravity Handler" (*Manieur de gravité*: unexecuted). At this spot there is encountered an upwardly directed "Mirror Image of the Splashing," and this effect is met by certain "Tirés"—"Extractions," previously translated (erroneously) as "Shots" (the original textual meaning will be soon restored). The *Extractions* are what fall down from the "Crown of the Ensemble."

Making a precipitous sortie from the Bachelor panel, as so directed by Duchamp's texts, the Alchemical Matter now moves left and slightly upwards, passing through the "Desire Magneto" (*Magnéto-désir*), where "artificial

sparks are emitted,” then to the “Réservoir,” containing “love essence” (really meaning, as we discovered, “Alchemical Sperm”). Following this stop, it is now ejected straight upwards through the “Engine with quite feeble Cylinders” (*Moteur aux cylindres bien faibles*), thence to the Bride herself, variously called “Vierge,” “Mariée,” “Arbre-type,” “Squelette,” and also a much-debated “Pendule femelle” (which I read to represent a “Suspended Female-Principle”). This is the area which initially “gives birth” to the second *Épanouissement*.”

That semiritualized action, *l'Épanouissement*, the culmination of all which has preceded in the complicated scenario of the *Large Glass*, actually transpires in the very top register of the Bride panel. Physical apparatuses belonging to this zone include the “Pistons for Air Currents” (*Pistons de courant d'air*), “Threads” (*Filets*), and the “Triple Grating” (*Triple grille*), a device which “transmits the commands of the Suspended Female [Principle].” The strictly allegorical signs belonging to this superior region include an “Auréola,” a final “Épanouissement,” the “Halo-Auréole de la Mariée,” serving as a “Title or Higher Inscription” (*Titre, or Inscription du Haut*), one sign of which is a “Milky Way” (*Voie Lactée*). Nearly all of these terms, especially *Auréola* and *Voie Lactée*, convey standard hermetic meanings.⁹⁸

As may be quickly recognized, nearly all of these terms and actions are derived from Notes 1 and 66, and a plausible parallel, broader but strictly allegorical, hermetic significance of nearly all these devices has already been fully identified. One of those terms has not yet been discussed in detail, and it is one which has endlessly puzzled Duchamp scholars, the so-called *Pendule femelle*. Most commonly this becomes in English “Hanged Female/Woman”; nonetheless, I have instead chosen to translate this to represent a “Suspended Female Principle.” The reasons for so doing are both generally linguistic and specifically (con)textual. In the first place, being placed directly behind *pendule, femelle* must function as an adjective. As such, the masculine noun *pendule*, “the hanged man”—to which *femelle* only supposedly refers—would then have to have been spelled *pendue*, or hanged woman. It is not, so the adjective must refer to yet another, understood substantive, and this in turn should be masculine in gender.

Again we turn to Pernety to find the identity of a certain masculine noun to which “female” must inevitably refer in the already established alchemical context of Duchamp’s *Large Glass*. The correct answer is *Principe*, “Principle.” And we learn this by first turning to two articles in the *Dictionnaire Mytho-Hermétique* consecutively dealing with “female”:

FEMALE [*Femelle*]: The Alchemical Philosophers state that their Mercury is both malish and “female” [*mâle et “femelle”*], meaning that it is an Androgyne. When, however, they are particularly speaking of “female” they are specifically referring to their Mercury, and by “malish” they mean to say Sulphur. WOMAN [*Femme*]: Hermetic Chemists have

commonly given the name of “Woman” or “Female” to their Moon, meaning the Mercury of the Philosophers. Sometimes, however, they also give this name to their volatile material in all those states in which she finds herself during the sequence of operations belonging to the Magisterium. This Woman of theirs was used as a personification already in the ancient hermetic fables, as much Greek as Egyptian, where she was given the names of Cybele, Ceres, Isis, Latona, Coronis, Europa, Leda, etc. When they call her “White Woman,” they have in mind her condition when this mercurial matter is arriving at the white state. WOMAN OF THE PHILOSOPHERS: This is Mercury; but the man, or the malish element, is [always] Sulphur.⁹⁹

Again, by stripping away Duchamp’s devious verbal camouflage, we have arrived at yet another apparition of *Mercurius philosophorum*. As was however always understood by the Alchemists, and so a defining noun need not always be written down, she represented a “principle,” reading in French *principe*. And just what does that *Principe*—the underlying “principle”—mean in alchemy? According to Pernety, who employs another odd and often repeated adjective, *éloigné* (distant or isolated), which is also repeatedly encountered in Duchamp’s Notes,

A *Principe* is that from which a thing extracts [*tire*] its beginnings, also meaning that which constitutes the essence of an individual body. This definition is only understood to refer to physical things. The principles belonging to a thing must be simple, pure and not mixed, and this is because it must form a homogeneous mixture. . . . In the particular sense, such as it might constitute such or such an individual, there is a basic Principle of Things which forms two other kinds of principles, one kind being distant [*éloignés*] and the others nearer [*prochaines*]. Accordingly, the most distant principle in the human body is Earth, from which its nourishment is derived and within which there are the nearer principles; from this nourishment sperm is formed, meaning *le principe*, the one which is closest to the animals. . . . The primary principles are Earth and Water, nearest to which are first mixtures made from these. . . . The Philosophers often call “principles” those ingredients which compose their Magisterium, but they do not, however, so term the principles or rules strictly belonging to Hermetic Science. Three principles enter into the operation of the Great Work. . . .

The effect which each principle operates in the Great Work becomes like this: 1. The Body represents the principle of fixity, and it works upon the volatility belonging to the other two; 2. the Spirit affords an entrance by opening up the body; 3. Water, by means of the Spirit, extracts Fire from its prison, and Fire is the soul [of the Work]. These three principles are reunited through Solution; they putrefy in order to acquire a new life, one more glorious than the one which they had formerly. . . . The Philosophers regard [the principle of] Sulphur as the male part, or agent, and they take [the principle of] Mercury to be

female [*le Mercure comme femelle*], and she is a patient to work upon, and [the principle of] Salt [*le sel*, or a certain “Marchand du Sel”] becomes the mediator or bond between the two. Therefore, when the Hermetic Philosophers say that it is necessary to reduce the metals to their primary principles, meaning to their *materia prima*, they do not mean to imply by this a retrograde movement towards their elements; rather they only mean to say that the metals must [progress to] become Mercury, not however a vulgar mercury, but instead the Mercury of the Philosophers.¹⁰⁰

Why, we may ask, did Duchamp specify that his was a “suspended” or hanging Mercurial Principle? Perhaps he just used the word *pendu* as a pun on *pendant*, as in the way that Pernetý stated that “dans tous les états où elle [Mercure] se trouve ou *pendant* tous le cours des opérations du Magistère.” In this sense, which does make some alchemical sense, hopefully Mercury is always *pendant*, or just on the verge of making her splendid appearance in a culminating apparition during the *épanouissement*. We are left in suspense. More likely however, the meaning of *pendu*—sounding for us Anglophones like PAHN-DOO—is (typically for Duchamp) far more devious, being based upon a series of Gallic homophonic *jeux des mots*. In which case, a couple of possibilities may be mentioned. In standard French, *en panne* means a mechanical breakdown, whereas *panne* (PAHN) signifies utter poverty in French argot. Accordingly, a “panne du [principe] femelle” could signify a breakdown or impoverishment of the Female Principle, meaning a momentary delay in the hermetic mechanism (or “retard en verre”) leading to Philosophical Mercury. Whereas there is no proof for any such *specific* meaning for Duchamp’s “pendu femelle,” a *general* context functioning strictly within the endless alchemical pursuit of *Mercurius philosophorum* does seem presently unquestionable. Certainly, I know of no more credible explanation.

The real sense of all the rest of the garbled nomenclature and liquescent sequential progression of the Bride panel placed at the top of the *Large Glass* falls into place once we realize that, once again, Duchamp had indeed turned to a specific textual source, or several sources, for models of some strictly physical actions occurring in this part of his Great Work. As previously shown to have been the case in the Bachelor panel, the specific published source for these kinds of pseudochemical transactions was an essay by Albertus Magnus called the “Compound of Compounds,” most likely as it was included in Albert Poisson’s translations of *Cinq Traités de l’Alchimie*. In this case, the subject concerns “The Preparation of Waters From Which You Shall Extract Aqua Vitae,” and the significant parts of this brief chapter (the fifth in Albertus’s *opusculum*) read as follows:

You shall recommence this operation at the point when the sublimated mercury becomes dissolved into the Water [Mercury]. You shall join into a single Water all of these solutions, placing them into a sparkling clean

glass vessel [*dans un vase de verre bien propre*]. . . Slowly begin the distillation. . . Following Putrefaction, Distillation and Clarification, the Water is pure and most perfect, stripped now completely of the fiery and corrosive sulphurous principle. . . Additionally, it contains neither *faeces* nor earthy impurities. . . The properties of this Mercury are that it is less mobile [*moins mobile*; as in “automobile,” propelling a Duchampian *moteur* now found “bien faible”), and so it flows more slowly than the other mercury. . . Once you have your Philosophical Mercury, take two parts of it and one part with filings. Make an amalgamation by grinding [*en broyant*] all of it together until you achieve a perfect union. Put this amalgamation into a flask and seal the orifice well. Placing it upon the embers over a moderate flame, it will soon all dissolve into Mercury. In this way, you are enabled to augment it into infinity [*à l’infini*]. . . This product is not the mercury of the vulgar crowd. It is instead the First Matter of the Philosophers, [also] called Holy Water, Acid, Water of the Wise, Vinegar of the Philosophers, Mineral Water, Rosary of Heavenly Grace. There are still more names yet, and even if these may differ, they will still all designate a single, unique thing, that which is *Mercurius Philosophorum*. It is the force of Alchemy. . .

All of these operations take place within one single vessel and upon one single furnace—such as has been stated. In effect, when our Stone is within its vessel, within which it is breeding [*qu’elle s’élève*], then it is said that there is a Sublimation or an Ascension. But when the Stone falls again to the bottom, then it is said that there is a Distillation or a Precipitation. Then, following Sublimation and Distillation, a time when our Stone begins to rot and to coagulate, there follow Putrefaction and Coagulation. Finally, once the Stone becomes calcined and fixed by the stripping from it all of its watery, radical humidity, this phase is called Calcination and Fixation. . . We have thereby suspended the true nature of matter by following a certain order: we have caused the four elements to turn in a complete circle; we have transmuted their natures.¹⁰¹

To conclude, the evidence unearthed in the Notes belonging to Duchamp’s *Large Glass* reveals that its content and procedures are, on one level at least, wholly alchemical. This conclusion, I repeat, does not in any way exclude the other interpretations that call our attention to other elements, namely the decidedly overt erotic factor, the references to contemporary science and technology, and the unmistakable presence of fourth-dimensional geometric figures. I shall, however, repeat my strictly esoteric conclusions. According to various literary remains so generously provided by the Artist-Artifex, his Notes, the comprehensive meaning (*l’allégorie*) of Duchamp’s *Large Glass* can, on at least the purely iconographic level, be nothing but Hermeticism, particularly as expressed through its alchemical, or strictly physical, applications. Moreover, the research necessary for Marcel Duchamp to carry out the *Large Glass* as an alchemical *opus magnum* was apparently minimal.

As it presently appears, for such purposes Duchamp needed only to have consult a few books: perhaps the *Museum Hermeticum*, unquestionably Pernety's *Dictionnaire Mytho-Hermétique* and Poisson's *Théories et Symboles*, and evidently also Poisson's *Cinq Traités*. Nonetheless, strictly considered as a literary exercise, the Notes for the *Large Glass* do in fact represent a model alchemical treatise. In Duchamp's Notes, both allegorical poetry and practical laboratory procedures have been introduced in equal measure and cleverly interwoven—and exactly in the very manner that the old alchemical model-treatises were so often composed in order to conjoin imaginative fancy and physical fact in due proportion. In sum, independently evaluated as a strictly creative literary feat, Duchamp's celebrated but eternally puzzling Notes are, accordingly, absolutely unique within the history of twentieth-century *belles lettres*.

Likewise puzzling and mostly unique—and presently, unquestionably, of immense art historical significance—are Duchamp's highly influential readymades, the objects of intense dissection in the next chapter.

alchemical emblematics and the ready-mades, 1913–1923

The argument pursued in this chapter will mainly focus on a single, critically notorious category of Duchamp's peculiar artistic production: the uniquely conceived, so-called ready-mades. By far, these are the *objets duchampiennes* that have proven most appealing, even useful, to contemporary avant-garde artists, particularly the American kind, and their imaginative rip-offs may number in the millions. I've even done a few ready-mades myself. The execution of most of the examples by Duchamp to be cited in this chapter belongs to the extended period of the *Large Glass* project. Juan Antonio Ramírez underlines their intimate relation, textual rather than visual, to the *Large Glass* project:

The majority of the ready-mades certainly have a “subject,” a kind of more or less literary argument to narrate, and I daresay that this was important for Duchamp. . . . The diverse ready-mades do reveal themselves to be something like episodes or partial experiments linked to [some kind of] a global purpose or intention. In the *Green Box* Duchamp included several notes referring to the ready-mades, and that [alone] should prove the fact of their intimate connection to the *Large Glass*.

Ramírez also usefully cites to this effect a statement by Duchamp, usually overlooked but revealing the fact of an extended period of preliminary cogitation that preceded each one of his supposedly accidental creations, each of which, he says further, was initially propelled by some specific meaning: “It would be necessary that I would reflect for two or three months before I would decide to make something which would have meaning[:] it was essential that there was a goal, some meaning. That sense was the only thing guiding me.”¹

Dieter Daniels has made some interesting arguments regarding that overall guiding sense propelling the direction of Duchamp's heterogeneous ready-mades, the meaning of which was not otherwise explained succinctly by their maker. The common link between the ready-mades and the *Large Glass* is, says Daniels, the pursuit of "an art beyond painting," and he links this idea to a query often posed by the artist: "Can one make works which are not 'art'?" Daniels also recalls Duchamp's often repeated desire to suppress "taste," *le goût*, and the fact that these were works *not* made to be exhibited—or at least so seems their original intention. Thus, expressed physically by "indifferent handling"—the kind achieved either in random choice (in the ready-mades) or through machine-like precision (in the *Large Glass*)—Duchamp's "express goal is to overcome 'taste' and thereby to distance himself from the Cult of the Genius expressed in painterly aesthetics"; instead, "he wishes to again make art the expression of intellect." This is done, Daniels affirms, by "die Reduktion des Manuellen," thus implicitly putting Duchamp into the camp of all those sixteenth-century Mannerist artists who had exalted the *idea* (*concetto mentale*) over the *opera di mano*; if we accept that, then Duchamp's agenda was a belated revival of those *artes liberales* polemics broadcast and resolved some four centuries earlier.²

In any event, Daniels affirms that we must additionally understand "the ready-mades as an ensemble instead of as individual works." Likewise, in their common exaltation of the principle of Chance (*le hasard, der Zufall*), we must see them as historical artifacts and, unfortunately, "few writers bother to place the ready-made in its contemporary context, the beginning of the twentieth century." In this instance, the point of common cultural departure is, states Daniels, "a transmutation of the principles of the exact sciences and physics," a program taking into account the whole range of "contemporary natural sciences, from the theory of relativity to quantum physics." According to this reading, by employing "methodischen Zufall zum Prinzip der Kunst," Duchamp proposed a "model interchange between the paradigms of art and physics," between the avant-garde artist's "paradigm of art, spontaneity, and the rigid determinism of the mathematical-scientific world-picture."

Daniels then assigns a mimetic role to the ready-maker, one mocking the modern scientist: "The physicist always sees himself as just an observer, never as an instigator [*Schaffender*]; hence the ready-made is drawn so close to the physicist's experiment as to constitute a 'proof' [*Beweis*] for an artistic theory." Daniels cites Werner Heisenberg's famous observation about how the presence of an observer inadvertently alters natural phenomenon. However, since that remark was coined in 1927, Duchamp's observation that "it is really the beholder who makes the work of art" makes *him* the historical pioneer of the instigator-*Beobachter* paradigm. In short, "the private empirical experiment [of the ready-mades] becomes proof for an artistic hypothesis concerning the possibility of 'works which are not art.'" Nonetheless, now

Duchamp's beholders do call them "art." Daniels' conclusion: the real impulse behind all this was irony, particularly in the light of the scandalous Boronali episode of 1910, where (as shown in chapter 1) the pioneering avant-garde abstractionist artist was shown to be literally "an ass."³

Given our previous findings regarding the *Large Glass*, showing this to have been elaborately conceived and executed by Duchamp as his *magnum opus alchemicum*, we have now good reason to believe that other artworks belonging to the same moment in his career should somehow conform to the same predominant intellectual interests. Again, as Duchamp put it, "Il faudrait qu'il y ait une direction, un sens." As we have seen, *l'allégorie*, either treated as individual motifs or as a universally applied leitmotif, does inform much of the *Large Glass*. The sense and direction of Duchamp's *idées-fixes* were often—perhaps mostly—fixed within Hermeticism and Alchemy, and these strictly esoteric factors complement previously recognized, concurrent Duchampian conditions of the fourth dimension and an (oddly) overt eroticism. Although he rejects the alchemy hypothesis, this conclusion complements Daniels's thesis: an ironic neo-Alchemist-Artist, the kind *sans le savoir*, likewise mocks the modern scientists and savants, also the "assinine" antics of all earnest vanguard types, *tous bêtes comme un peintre*.

To reiterate their art-historical significance (and regardless of our forthcoming esoteric identifications of occult meanings lurking behind these "non-art" objects): unquestionably the ready-mades have proved to be, by far, the most influential part of Duchamp's oeuvre for avant-garde artists, especially a host of Americans working after 1960.⁴ Nonetheless, as far as we know, none of these late- to postmodernist individuals were at all interested in alchemy. Joseph Masheck finds a useful context for those mysterious objects within the art world of America just before its entrance into World War I:

The essential commonness of the objects selected [by Duchamp] as ready-mades was [a trait] also related to the everyday esthetics of the Ash Can School of painting in New York. These painters of the grubby actuality of city life acquired their collective tag in the very month in which Duchamp unveiled his ready-made art in New York, in April 1916. In the same year, Hugo Münsterberg used the actual word "ready-made" in connection with the convincing representation of real life in the cinema.⁵

Nonetheless, Münsterberg did not actually invent the term; as it turns out, as early as 1890 the noted American psychologist William James, a justly celebrated author of *The Varieties of Religious Experience* (1901), used the adjective *ready-made*. Most interesting in this interpretive context is the fact that James employed the term to describe the adherents of the Esoteric Tradition (one of whom later, 1913, actually used the term *ready-made*), especially those who believed that mediums could actually communicate with the spirits of the dead. James then scoffingly said (notwithstanding his

unquestionable fascination with the subject) that all these befuddled Spiritualists, “simply find various characters *ready-made* in the mental life, and these they clap into the Soul. The Soul invoked, far from making the phenomena more intelligible, can only be made intelligible itself by borrowing their form.”⁶

The term *ready-made* was also employed in 1913 by a notable Russian Occultist, P. D. Ouspensky, whose work was translated into English in 1920 by the American Theosophist Claude Bragdon. As we see here, the context of the phrase *ready-made* is specifically artistic: “If an artist uses *ready-made* symbols his work will not be true art, but only pseudo-art. If an occultist begins to use ready-made symbols, his work will not be truly occult, for it will contain no esotericism, no mysticism, but only pseudo-occultism, pseudo-esotericism, pseudo-mysticism. Symbolism in which the symbols have definite meanings is pseudo-symbolism.” To avoid this “ready-made” problem, Ouspensky affirms that you must understand that “the key to the Tarot must lie in the imagination,” and so you must “interpret the symbols, not by means of analysis, but by synthesis.”⁷ More important for our purposes is a much earlier affirmation, for it additionally links the Alchemist to the endeavor of the Artist; in short, the same “ready-made” terminology appears in the 1893 English translation of a classic anthology of alchemical texts, the *Musaeum Hermeticum* (1678): “Our Artist does not claim to create anything but only to evolve new things from the [alchemical] seed made ready to his hand by the Creator.”⁸ In this usage, the Alchemist’s *materia prima* is literally “ready-made.” So was Duchamp’s.

Duchamp himself also praised, even invoked the awesome powers of the Spiritualist mediums who launched the modern branches of the Esoteric Tradition. As the artist eventually admitted to Pierre Cabanne, “I do believe very strongly in the medium aspect of the artist. . . . There is the pole of the one who makes the work, and there is the pole of the one who looks at it. I give the latter as much importance as the one who makes it.”⁹ On another occasion, Duchamp expanded much further upon the role of a modernist artists who overtly functions as a *médium*. Not only is the modern artist a spiritualistic medium, but also, says Duchamp, the spectator plays an essential role in the creative act. In order to explicate the creative acts symbiotically contributed to by both artist and viewer, Duchamp employs blatantly alchemical metaphors, a point typically overlooked in citations of this statement. As he stated, whereas the artist’s imagery is “refined” from “raw matter,” the sensitive viewer undergoes a spiritual “transmutation” in the process of his esoteric act of “decipherment and interpretation” of a possibly impenetrable avant-garde work of art.

In a public lecture on “The Creative Act,” presented in Houston, Texas, in April, 1957, Duchamp proclaimed, in a uniquely straightforward manner,

To all appearances, *the artist acts like a mediumistic being* [emphasis added] who, from the labyrinth beyond time and space, seeks his way out to a clearing. If we give the attributes of a medium to the artist, we must then deny him the state of consciousness on the esthetic plane about what he is doing or why he is doing it. All his decisions in the artistic execution of the work rest with pure intuition. . . . This phenomenon is comparable to . . . an esthetic osmosis taking place through the inert matter. . . . In the creative act, the artist goes from intention to realization through a choice of totally subjective reactions. His struggle toward the realization is a series of efforts, pains, satisfactions, refusals, decisions, which also cannot and must not be fully self-conscious, at least on the esthetic plane. . . . [His] is a personal expression of art à l'état brut, that is, still in a raw state, which must be refined. . . . The creative act takes on another aspect when *the spectator experiences the phenomenon of transmutation*: the spectator brings the work in contact with the external world by deciphering and interpreting.¹⁰

The unmistakable verbal analogies to the Symbolist art criticism, especially Albert Aurier's, are evident.

As is indicated by the striking English term essentially coined by Duchamp, these "ready-mades" seemingly correspond to the *objets trouvés* subsequently advocated by the Surrealists.¹¹ In common surrealist usage, found objects were to be presented as art without having suffered the calculated intervention of the artist's hand. In 1935, over twenty years after their initial appearance, this important innovation of Duchampiana was extolled and defined by André Breton as representing "manufactured objects promoted to the dignity of art through the choice of the artist."¹² It was, in fact, some time before 1923, while what Duchamp called the "fire" of the "story, anecdote" was still impelling the execution of the *Large Glass*, that he was already working on those other important works, the famous ready-mades.¹³ To date, rarely has any meaningful connection been drawn between these odd works and the *Large Glass*; two notable exceptions to this rule are the recently published monographs (1992, 1993) of Dieter Daniels and Juan Antonio Ramírez.¹⁴ This diversity, even irreconcilability, of opinion is not surprising, especially since the meaning of the *Large Glass* still remains essentially, perhaps endlessly debatable. Nevertheless, because the genesis of the ideas motivating the anomalous ready-mades is exactly contemporaneous to the original concept of the *Large Glass*, they surely all were derived from a common impulse. And, according to my findings, that initial impulse was probably more indebted to Hermeticism than to anything else.

The first of the ready-mades, the *Roue de Bicyclette* (MD-87)—literally, in both senses, a bicycle wheel, was fabricated by Duchamp in Neuilly in 1913.¹⁵ Left behind in France (and now lost to adoring posterity), this mandala-like artifact was first recreated by the artist in 1916 on the other side of the

Atlantic. Duchamp was later to suggest, with, I think, a certain grain of purposive deceit, that the origins of all his ready-mades was strictly casual. As he told Pierre Cabanne, "When I put a bicycle wheel on a stool, the fork down, there was no idea of a 'ready-made,' or anything else. It was just a distraction. I didn't have any special reason to do it, or any intention of showing it, or describing anything. No, nothing like that . . ."16 In another taped interview, with Arturo Schwarz, Duchamp commented further:

The *Bicycle Wheel* is my first ready-made, so much so that, at first, it wasn't even called a ready-made. It still has little to do with the idea of the ready-made. Rather, it has more to do with the idea of chance [*le hasard*]. In a way, it was simply letting things go by themselves and having a sort of created atmosphere in a studio, in an apartment where you live. Probably [it serves] to help your ideas come out of your head. To see that wheel turning was very soothing, very comforting, a sort of opening of avenues on other things than material life. . . . Obviously, the wheel must have had a great influence on my mind, because I used it almost all the time from then [1913] on.¹⁷

It is probably significant that Duchamp did not choose to comment when Schwarz quite correctly observed that "a turning wheel has *always* been an esoteric symbol." In any event, the esoterically inclined *Bicycle Wheel* was one of those "objects of meditation" to which Henri-Pierre Roché, among other intimates, had been introduced in Duchamp's *atelier-laboratorium* in 1916. As we shall soon see however, its alchemical significance is blatant.

Another pre-war object, the *Bottle Dryer* (MD-99), literally so and bought "as is" from a Parisian dry goods shop, is the first truly nonassisted ready-made.¹⁸ Schwarz tersely commented, but without any confirmation from Duchamp, that "the obvious phallic symbolism of this item need not be stressed. . . . A bottle dryer fulfills its function only when the bottles are inserted onto the spikes. Duchamp's *Bottle-Dryer* has never received its bottles, thus [by a strained Freudian leap of the imagination] this item seems to symbolize Duchamp's bachelor status."¹⁹ Another, much blander, interpretation is that, in French, another name for a bottle dryer is *égouttoir*, a "dripper," which could also easily become an *égoûttoir*, an instrument "to remove taste," *le goût*. The first strictly American ready-made was a large snow shovel that Duchamp bought "as is" in November 1915 from a hardware shop in New York (such objects seem unknown in France).²⁰ It is now inscribed along the lower rim of the ungalvanized reinforcement plate, and thereby a cryptic motto becomes its title: *In Advance of the Broken Arm* (MD-102). Again, Arturo Schwarz chose to perceive yet another phallic implication in a seemingly innocuous piece of mass-produced hardware.²¹

Be that as it may, Duchamp told Cabanne in 1966 that, beginning with his nonsequitur snow shovel, "The word 'ready-made' thrust itself on

me then. It seems perfect for those things that weren't works of art, that weren't sketches, and to which no [conventional] art terms applied. That's why I was tempted to make them." He additionally claimed that the initial choice

depended on the object. In general, I had to beware of its "look." It's very difficult to choose an object, because, at the end of fifteen days, you begin to like it or to hate it. You have to approach something with an indifference—as if you had no esthetic emotion. The choice of ready-mades is always based on visual indifference and, at the same time, on the total absence of good or bad taste. . . . It [*le goût*] is a habit, the repetition of something already accepted. If you start something over several times, it becomes taste. Good or bad, it's the same thing; it's still taste.²²

One markedly cryptographic exercise mutually executed by Marcel Duchamp and Walter Arensberg still exists, *With Secret Noise* (MD-107, discussed in chapter 5). In February 1916, Duchamp bought and named a steel *Comb* (MD-106).²³ Like *À bruit secret*, this object is also inscribed, but the motto is even more puzzling than before: "3 ou 4 gouttes de hauteur n'ont rien à faire avec la sauvagerie" ("three or four drops [of sperm/ semen?] [falling] from above have nothing to do with savagery or barbarism"). Much later, Duchamp provided an equally bizarre explanation for this *pièce-de-resistance risible* to Arturo Schwarz:

The teeth of a comb are not really a very important item in life. Nobody ever cared to consider a comb from such an angle. . . . It could also be compared to a golden section, when you have a different [proportionate] relation of length to lines. That's very farfetched, but I am always attracted by the farfetched. . . . The comb becomes [a metaphor of] the generation of space, space generated by [the number and width of] the teeth. . . . There is a possibility, as I said, of generating space from a flat surface. You can do it with any surface.²⁴

As Naomi Sawelson-Gorse explains, one result of the meticulously lettered inscription was "an alpha-numeric string cipher, so called by cryptographers."²⁵

Given the fact that Duchamp himself admitted his attraction to the farfetched, oddly enough I do not find mention of the most obvious homophone for this piece, *Peigne*, being cited in the interpretive literature: in standard French, *péne* sounds just like *peigne*, and the former means "penis." In any event, that kind of eroticized, sometimes "savage," male member also notoriously makes "drops." This conclusion might seem only farfetched (or *outré*)—but I have proof that Walter Arensberg himself made much out of the wordplay potentially generated by *pene*. And remember that, as was the case with *À bruit secret*, Arensberg was the co-author of this particular *Peigne*.

In his *Cryptography of Dante*, upon which he was engaged as early as 1916, Arensberg claimed that Dante was referring (*Inferno* 34: 91–93) to “the *pene* of Lucifer,” “genitals are exactly at the center of the earth.” If you think that observation is just a trifle farfetched (or *outré*), try this one: “Dante, who, at the sight of Lucifer, became FETO [foetus], must now have become SPERMA [sperm] again in order to pass through the *pene* [penis] of Lucifer into the cavity below.” Moreover, “the verb for *gente grossa* is *pensi*, line 92, which is an anagram for *penis*, and which is, in addition, the word on which terminate three interior sequences spelling PENE,” and Arensberg proceeds to show us these *pene* sequences, very much buried in Dante’s Italian text.²⁶ Elsewhere, discussing *Inferno* 12: 34–45, Arensberg works out a sequence, arranged vertically, of PAPE SATAN PAPE SATAN ALEPPE, and from this babble we are instructed to: “Read down on the first three words: PENE. Read up on the last three words: PENE. The two readings key on E of the third word. Just as in the first telestic reading, Dante and Christ are associated, so Dante is here associated with PENE. Phallic symbolism for Christ appears in his well-known symbols, the fish and the key.”²⁷ After that iconographic revelation, we are perhaps not surprised to find that Arensberg repeatedly finds Dante referring to himself as SPERMA (sperm).²⁸

To amplify further this certainly novel interpretation, I may now add to the argument exactly what Arensberg had specifically to say later about the strictly alchemical interpretation of “sperm,” for that is the liquid which I assume to have been specifically represented in 1916 by these *penis-péne-pene-peigne* generated “drops.” In short, for Arensberg, and following conventional Rosicrucian wisdom, Alchemy largely represents *sexual* allegory; and all this was made perfectly clear in a lengthy statement published by him in his *Shakespearean Mystery* (1928; already quoted at length in chapter 5). As we recall, Arensberg, Duchamp’s patron and sometime collaborator, then stated that, typically, Alchemy “adapted the symbolism of the mysteries to a scientific procedure,” and that such pseudoscience was mainly employed to express “the process of sexual generation.” Therefore, a characteristic corollary of alchemical iconography is what he called the “expression of sexual procreation and incest”; accordingly, and as we saw, he necessarily made much ado about the generation of alchemical *sperma*. However, the principal symbolism employed by the Alchemist-Artist is mainly, Arensberg asserts, that “of a divine and incestuous marriage,” and this coupling is specifically understood to be “analogous to a human marriage.” As Arensberg additionally observed, one of the best pictorial treatments of this standard hermetic symbolism is to be found in the alchemical emblem books of Michael Maier (ca. 1558–1622), among which most celebrated is his *Atalanta Fugiens* (1618), and many of Maier’s plates were also reproduced by Arensberg in his own self-published pseudoscholarship (see figs. 14–19, 21, 22, 28, 29).²⁹

As one concludes, perhaps these two cryptographic concoctions wrought by Duchamp and Arensberg working together in 1916 (MD-106 and MD-107) were not quite so meaningless as we have always been led to believe. We may further assume that the collaboration between Marcel and Walter was, besides literally cryptic, also amused, ironic, a complicated holiday diversion and a covert game, one understood only by a pair of overaged schoolboys known to be antithetical to boredom. How serious was their game? Probably not very, and one rather doubts that the amused conspirators would have bothered to label their diverting operations “Art.” Nonetheless, decades later many people have, and, for them, anything labeled “art” represents truly serious business.

Another purchased ready-made of 1916 is Duchamp’s plastic typewriter cover, literally so but now called a *Traveller’s Folding Item*, or *Pliant* (MD-108).³⁰ In French, *pliant* conveys, besides flexible or folding, the English equivalent of “compliant.” Arturo Schwarz again informs his readers that this nondescript object, inscribed by its manufacturer to be “Underwood,” is really replete with latent, sexual, and voyeuristic connotations: “Duchamp identifies it with a feminine skirt, which should be exhibited on a stand high enough to induce the viewer to bend and see what is hidden [‘under’] by the cover. There is nothing under it, of course. This is in accordance with the view expressed by Duchamp: ‘The onlookers are the [compliant] ones who make the picture.’”³¹ Two other ready-mades may be briefly mentioned, both of which belong to the year 1917.³²

A store-bought coatrack became a *Trébuchet* (*Trap*, MD-111), that is, once it got itself nailed to the floor of Duchamp’s studio. The exact Gallic homophone of *trébuchet* is “très bouché,” meaning “really corked up, clogged; stupid and dense.” Nonetheless, the most likely source of Duchamp’s title for his provocative trifle appears to derive from the game of chess, wherein *trébucher* is a tactic whereby one offers a pawn in the hopes that the opponent will stumble into a deceitful sacrifice. Nailed on a floor, the vertically projecting prongs of Duchamp’s ready-made become a real “trap” for any uninvited intruder into the secretive artist’s inner sanctum. A similar object is Duchamp’s literally labeled *Hat Rack* (MD-112). This item, with somewhat sinister projecting, octopus-like tentacles, was suspended by strings from the ceiling of the 33rd Street studio. Slowly revolving in the stale air of Duchamp’s cavernous *laboratorium*, dimly lighted by a single bare lightbulb, the ominously suspended *Hat Rack* once cast eerie and moving shadows upon the studio walls covered with precisionist sketches for the forthcoming *Large Glass*.

In 1918, at the express command of Katherine Dreier, Duchamp executed his last oil painting (MD-114), which also happens to be his largest canvas (27.5 by 122.5 inches) (fig. 13).³³ Called *Tu m’ . . .*, this is a mural which was designed to complement Dreier’s library, filled with numerous

esoteric, largely Theosophical texts. *Tu m'*. . . is actually a kind of assemblage, consisting of oil on canvas with some faint pencil lines, a real bottle brush projecting horizontally from the center of the composition, three safety pins. The pins secure an illusionistically rendered, diagonal rip in the canvas, and a metal bolt holds down a painted golden-yellow square, the last of an infinite series of differently colored squares that disappear in perspective off to the left side of the painting. This curious work was also a kind of collaborative effort: the illusionistically rendered hand, placed at the bottom center, was painted by a professional sign maker who signed his mini-opus in pencil: "A. Klang." Duchamp later called this "a kind of inventory of all my preceding works."³⁴

As Arturo Schwarz recognized, the truncated title is an abbreviation: "The phrase [*tu m'*. . .] is really a polite contraction for the French colloquialism, *tu m'enmerdes* (you bore me [actually more like 'your *bull-shit* bores me']), a feeling which could perhaps be referred both to the tedium involved in making the work, and to the person [Katherine Dreier] who commissioned it." Duchamp's painting shows shadows cast by and then copied from three ready-mades: the *Bicycle Wheel*, the *Hat Rack*, and the otherwise unknown *Corkscrew* (or *tire-bouchon*, also commonly meaning "lesbian" in modern French argot). Other motifs appearing in *Tu m'*. . . were taken from the *Large Glass*. As usual, Schwarz has a "ready-made," Freudian interpretation at hand to apply to this baffling work:

From a hole in the [painted] tear, a bottle-brush, securely fastened to the stretcher, projects toward the spectator. The symbolism of this detail is clear—it is a transparent allusion to coitus, while the three [real] safety-pins that repair the [illusionistic] tear may refer to a clumsy attempt to cancel out the consequences of the sexual intercourse. After having shed her garments, the Bride [in the *Large Glass*] finally meets the Bachelors. . . . The fact that the rip in the canvas is simulated, while the safety-pins are real, has a very clear meaning: the Bride must remain a Virgin for Duchamp.³⁵

On the other hand, we have a very different kind of interpretation forthcoming from Katherine Dreier, the spinster lady (herself a *tire-bouchon*?) who commissioned the bizarre piece. In the context of her known esoteric pursuits, it was, of course, to be expected that she would have applied to this work a typical occultist interpretation. As a full-blown Theosophist, Katherine Dreier naturally stressed the potentially spiritualist, or antimaterialist, intentions propelling the mysterious painting she commissioned from Marcel Duchamp. According to Miss Dreier,

Once we understand that the [material] objects are but the instruments the artist selects to use in search of the Spirit, it is of no [further] interest

to remain [merely] on the surface of what we see. . . . In Duchamp's *Tu m'*, the emotion is obtained by the contrast of the corkscrew's shadow, [looking] like candle smoke, and a sign painter's hand, actually done by a sign-painter. To have presented on the one and same canvas the difference between the two attitudes towards one's work, demonstrates clearly the [equally] mental and spiritual approach of the artist. . . . In the mural, he emphasizes the philosophical idea that nothing has value until it passes through some mind which creates the value. . . .

He causes one to realize the futility of trying to possess that which does not belong to the material world. For the moment, one wants to possess and grasp at it [meaning the illusions of the materialist world]—at that moment it eludes one and, like smoke, it vanishes into thin air! Our relationship to the Outer and the Inner World is thus proved. Our relationship can [either] be addressed to the Outer World and its natural [and deceptive] phenomena—or to the Inner World, the world of the Spirit, or [of] the finer vibrations. . . .³⁶

To anyone familiar with the contents of Madame Blavatsky's voluminous spiritualist writings and with the convoluted doctrines of her Theosophical Society, particularly as often published by the likes of Annie Besant and C. W. Leadbeater, the ultimate source of the arguments advanced by Dreier is all too obvious.³⁷ Still, Dreier has not revealed the complete meaning of Duchamp's *Tu m'*. . . . In order to grasp the potential significance of this odd picture—and all the other contemporaneous works by Duchamp, some of which need not be discussed here³⁸—one is probably better advised to examine the potential effects of yet another esoteric doctrine, Alchemy. Since, as we saw, the Theosophists had spoken often about "Spiritual Alchemy," it seems likely that Dreier herself was familiar with this uplifting subject. After reviewing these artifacts—especially the everconfounding ready-mades—within a new iconographic context, Alchemy, the other works by Duchamp that were contemporaneous with Dreier's rampantly abstract mural then collectively appear to have incorporated the tenets of a hermetic science that literally marries eroticism to occultism.

Another overlooked aspect of the ready-mades must be mentioned. Functionally, they seem very much like the Baroque-era literary genre called "emblematic literature," so much so in fact that Duchamp's ready-mades can now be easily reread to be consistently, essentially, and even literally emblematic in character.³⁹ On one level, their creator announced that "the choice of these ready-mades was never dictated by esthetic delectation; the choice was based on a reaction of visual indifference [in regard to the end product] with a total absence of good or bad taste."⁴⁰ However, as he quickly added, "one important characteristic was the short sentence." This motto, he states, "I occasionally inscribed on the ready-made. That sentence, instead of describing the object like a title, was meant to carry the mind of the spectator towards other regions more verbal."⁴¹ In Note 54, dealing with his

“Specifications for the ready-mades,” Duchamp even went so far as to state that its inscription comes first; “the readymade [as the actual physical object] can *later* be looked for.”⁴²

In sum, according to the Duchampian canon, first comes the inscription and only later is this provocative title to be applied to some physical manifestation or visualized illustration of the originating concept. By his own admission, therefore, for Duchamp a *title*, that is, what we should call by reference to long established literary traditions a “motto,” was the essential, pre-existing condition and the complementary prerequisite to the *image*; that means, according to the terminology stemming from this same literary genre, the “icon.” *Motto* and *icon* are the first two essential features of the Renaissance emblem.⁴³ Within this same highly conventionalized literary mode, the third essential component was the “epigrama,” or semi-poetic commentary, and it turns out that Duchamp consistently provided those complementary epigrams in the form of his voluminous and very cryptic Notes.

It will additionally be recalled that, quite to the contrary for most contemporary avant-garde artists (especially the American ones), Marcel Duchamp had significant linguistic abilities, once considered standard among educated middle-class youth, and these enabled him to study the old and consistently highly illustrated literature of the Renaissance emblematisers. Besides being a fluent speaker of both French and English, we know that he also could comfortably read German and Latin.⁴⁴ This point is worth remembering in the light of what follows, namely the citation of some standard, and handsomely illustrated, alchemical texts originally published in Latin (see figs. 14–19, 21, 22, 28, 29; see also figs. 4, 5, 6, 7, 9, 10, 12, and my previous arguments concerning them). For purposes of comprehensively interpreting certain hitherto hidden (or *occulta*) significances informing Marcel Duchamp’s ready-mades, a number of iconographic parallels drawn from standard alchemical literature will again be presented. In this case however, our discussions of those ready-mades will mainly focus upon the wholly hermetic emblem books.

For an analysis of various standard literary themes appearing to belong to Duchamp’s ready-mades, various emblematic examples will generally be presented as illustrative parallels—and not always necessarily as direct iconographic sources. My basic argument is that the emblematic illustrations enable us to visualize, and make much more legible, certain latent subtexts apparently informing the intrinsic meaning of Duchamp’s staunchly cryptic ready-mades. With his well-documented linguistic abilities, Duchamp certainly could have easily understood the textual significance of, first, the captions (*mottos*) and, secondly, the generally brief expositive texts (*epigrams*) accompanying these endlessly intriguing and handsomely engraved pictures (*icons*). More important, we have already established in chapters 1 and 2 a solid context, the Symbolist-era milieu, for his motivation to inves-

tigate these esoteric materials. Duchamp certainly could have read these old alchemical publications, and the circumstantial evidence to be brought forth here will serve to make a strong case that, in fact, he actually did so. Had, however, Duchamp actually admitted to manipulating these texts, which of course he never did, then we would have long since had the proof for the following arguments, so making what follows happily irrelevant. He didn't, so we must press on.

For the purposes of this particular iconographic investigation, my examples will be largely drawn from the most richly illustrated publication in the entire history of Alchemy, Michael Maier's emblem book called the *Atalanta Fugiens* (1618).⁴⁵ The reasons for this bibliographic restriction are as follows. First, due to its fifty-one splendidly designed plates, there is an obvious aesthetic appeal in this particular picture album for a visually acute artist like Duchamp. Secondly, Maier's emblem book, also including an extensive Latin text, is an invaluable and conveniently accessible anthology of the conventional wisdom endlessly reiterated by the Alchemists. It proves as useful for our purposes as are the largely unillustrated texts of Pernety and Poisson. The content of Maier's emblem book—treated as either general ideas or as a rich ensemble of specific symbolic motifs—conveniently includes innumerable textual references to other works written centuries before, many of which are hard to find in nonspecialist libraries. In short, we may take Maier's ingeniously elaborated picture book to represent a useful, indeed peerless summa of traditional alchemical iconography. Third, the *Atalanta Fugiens* also serves graphically to illustrate in a striking way many "allegorical" ideas in Duchamp's oeuvre which have proven hitherto elusive or often even impossible to define verbally in even the most rudimentary way.

Finally, my essential fourth point is that this work *must* have been known to Marcel Duchamp, because the vivid plates from Maier's *Atalanta Fugiens* were certainly well known to Walter Arensberg, Duchamp's friend and artistic collaborator, and also the generous patron of the ready-mades and the *Large Glass*. In fact, Arensberg had reproduced, evidently at some expense, many of Maier's canonic alchemical illustrations in order to illustrate one of his own privately printed esoteric publications.⁴⁶

As we saw, Duchamp's first ready-made appeared in 1913: the *Bicycle Wheel*, inserted into a common stool (MD-87). Subsequent ready-mades worthy of close analysis include a snow shovel, a retouched calendar illustration, a birdcage stuffed with odd detritus, a bearded copy of Leonardo's *Mona Lisa* (inscribed "L. H. O. O. Q.," and so pronounced *Elle a chaud au cul*), a controversial porcelain urinal, and others. For comprehensive interpretive purposes, I will initially designate all these ready-mades as being representative illustrations of a central symbol in alchemy, the Stone of the Philosophers, or *lapis philosophorum*. This object, the touchstone of all alchemical creation (as we learned from Pernety's *Dictionnaire Mytho-Hermétique*), proves

elusive to those who pursue it, even to those few initiates who prove spiritually worthy for the hermetic endeavor. And again, just as Pernety also stated, total secretiveness is obligatory in any alchemical endeavor: “ne permet pas qu’un secret si précieux soit connu des méchants et des ignorants.”

As Petrus Bonus explained in his *Margarita Pretiosa Novella*, “in short, the Stone concerns all things that do exist, and all things that do not exist.” As a result, “that is why all the Philosophers of this Art [*Philosophi huius Artis*] touch on the science of this Stone in all sciences and in all works.”⁴⁷ Although most highly valued by the Alchemists, according to their enigmatic explanations it also paradoxically appears in the guise of commonplace and discardable material. It is, functionally at least, a pre-Surrealist *objet trouvé*. In the old alchemical treatises, it is called *exilis*, poor and meager stuff. It is “vile and most base,” something that “is thrown out into the street,” or *in stercore ejectus*, “pitched upon the dung-heap.” As the “commonest thing,” it is something “to be picked up anywhere”; as some specify, it may be easily found “on the plains, in the mountains and the waters.” It is also often described as “cheap” in price, a man-made object, something that you could buy in a shop, *de pretio quoque vilis*, “of little cost and vile.” According to the *Rosarium, artis auriferae*, “what we are seeking is sold publicly [in shops] for a very small price, and if it were recognized [for what it really is], the merchants would not sell it for so little.”⁴⁸

In a similar vein, Barcius in his alchemical treatise *Gloria mundi, alias Paradysi tabula*, says that even though the Stone “is familiar to all men, both young and old,” nevertheless, “it is cast into the street by servant-maids. Children play with it, yet no one prizes it.”⁴⁹ Corresponding statements, referring to “the knowledge of this Art” that is uniquely revealed in the Stone, which “is found *potentially* everywhere, and in everything,” thus it is “familiar to all men . . . yet no one prizes it,” are to be found in the English edition of the *Hermetic Museum*, as translated by A. E. Waite and published in 1893, an invaluable anthology likely known to Walter Arensberg.⁵⁰

In short, to the uninitiated and/or ignorant crowd, the Stone is just junk, what Pernety labeled a “vile thing,” but “the wisest modern alchemists will regard it as a real object.”⁵¹ Similarly, to those not yet initiated in the esoteric modes of creation usually associated with avant-garde art, Duchamp’s *Bicycle Wheel* is just junk. I myself have made a nearly exact replica of this modernist icon, put it in my living room, and everyone not initiated into its prestigious occult mysteries has asked me, “Why do you put such junk in your house?” My reply: *Chacun a son goût*. To see in detail just how the Duchampian ready-made operation works in practice, and specifically in terms which we may now call simultaneously “emblematic” and “alchemical,” we will proceed to define the issue by examining Michael Maier’s thirty-sixth emblem, “De Secretis Naturae: Lapis projectus” (fig. 14). Maier’s icon illustrates the idea of the ubiquity of the alchemical Philosopher’s Stone, also explaining its “ready-made” nature.

Passing along a well-traveled highway, peasants and a mounted nobleman all fail to see several cubic blocks tossed around them in profusion, some of which are even magically suspended in the sky. As an ironic-minded art historian might suggest, this evidently represents the first known rejection of Cubist sculpture (*mais bien avant la lettre cubiste*). According to Maier's motto, "The Stone has been thrown upon the earth and lifted up into the mountains; it lives in the air and feeds in the rivers, that is, Mercury." The longer *epigrama* placed below the picture tells us that: "It is said that Adam took the Philosophers' Stone with him when he left Paradise, and that it is now in you, in me, and in everybody else." Even though we all carry it in our hearts and minds, Maier reminds us also that,

It is said that the Stone is refuse of little value, and that it lies by accident on the roads, so that rich and poor have it ready at hand. Others allege that it is to be found on the tops of the mountains, through to the heights of the air. But others, in their turn, think that it feeds in the rivers. This is all true, in its own meaning, but I advise you to look for such great gifts in mountainous places.

In his much longer *Discursus* following, among other things, Maier says that the Stone "is found on the roads and on the dunghill, because it is dirty and is despised and trampled upon . . . and Arnoldus [Villanova] says, 'One can obtain the Stone in abundance, for nothing, wherever one wants, and without needing to ask anybody for it'.⁵²

In his strange assemblage inscribed *Why not sneeze, Rose Sélavy?* (1921: MD-130), Duchamp seems actually to have illustrated the sharp-edged, proto-Cubist *lapis philosophorum* created for Michael Maier's emblem (fig. 14).⁵³ Duchamp's bizarre *objet trouvé* consists of—literally—a metal birdcage—or avian "prison"—filled with 152 marble cubes, a bone for parrots to sharpen their beaks, and a thermometer. The last instrument serves, according to Duchamp, to register the temperature of the cubic stones randomly put into the cage. The correct measurement of the temperatures of their materials was, of course, of vital importance to the Alchemists, and this caloric obsession seems to have been referred to obliquely by Duchamp: "There's the marble [in the cage] with its coldness, and this meant that you can even say you are cold, because of the marble, and all the associations are permissible."⁵⁴ Since indeed with Duchamp "all the associations are permissible," the "coldness" literally invites Rose-Marcel to "sneeze"—*éterner*—which also sounds (literally) like *éterner*, an invitation "to become immortalized," or—as *s'éterner*—to create something "to last forever."

By my reckoning, the understood, larger context also includes strictly alchemical associations. For instance, Pernety mentions the importance of such a *Thermomètre Philosophique*, which is, just as one expects, an instrument by which the Hermetic Philosophers register the "chaleur naturelle des

mixtes” that naturally appear during the varying course of the operations belonging to their Great Work.⁵⁵ More important, the term *cage* and/or *prison* was often applied by the Alchemists—so says Albert Poisson—to the vessel in which they cooked their hermetic materials.⁵⁶ As for so much else, Poisson’s obvious literary source was Pernety, and concerning this penitential motif the latter states the following:

PRISON. The Philosophers employ this term in several different ways. In the first place, they employ it to describe the earthly, gross and heterogeneous parts, within which their Mercury and Gold are trapped, as in a prison, and from which they must be freed. Secondly, they use the term [*Prison-Cage*] to refer to the vessel, within which there is put the Matter of the Work be worked upon in order to take it to culmination, to the Magisterium. . . . Thirdly, by “Prison” they refer to Mercury which, while working to dissolve the fixed element, is considered to be “in prison” during the whole course of the black phase, which they also call “Sepulchre,” or “Tomb.” In the fourth place, they say “prison” to refer to the fixation of Mercury herself. . . . The Moon [or Mercury] is presented in the guise of a woman dressed in a white dress, and this robe is thrown at the feet of her assistants [quasi-Bachelors]; following several amorous sighs accompanied by tears, she pleads to her assistants that they release the Sun [or Sulphur], who is her mate and who was imprisoned by the deceit of Mercury, already condemned to death by the other Planets.⁵⁷

Nonetheless, Duchamp’s artifact is specifically described as a prison strictly for the birds. For the strictly alchemical *raison d’être* of “birds,” which proves completely in accord with the preceding hermetic definition of such an alchemical “prison,” we again may turn to Pernety. Speaking of the alchemical “bird,” he explains that

The Hermetic Philosophers have ordinarily taken birds [*oiseaux*] to be a symbol of the volatile parts of the Matter of the Great Work, and have given to their Mercury diverse names belonging to birds, for example, eagle or gosling, a crow, a swan, a peacock, a phoenix, a pelican, and all these names are fitting to describe the Matter of the Art, differentiating the various colors, or different states, which are experienced during the course of the operations [see fig. 10]. Likewise, in these descriptive titles the Philosophers take into account the characters of the birds from which they have derived these terms in order to apply them through metaphorical usages to describe their Matter.⁵⁸

Finally, Pernety even explains the presence of those carefully polished, snow-white cubes made from marble (*marbre*) in Duchamp’s symbolic bird-prison arranged around carefully measured temperature ranges: “MARBLE. Properly speaking, the Marble of the Hermetic Sages means their Mercury. They

have, however, also given the same title to their Matter when it arrives at the white stage due to cooking; they do so because it is then as sparkling as polished white marble."⁵⁹

Let us return to consider the not-so-hidden agenda of the first of all the ready-mades. The shape of Duchamp's *Bicycle Wheel* (MD-87) is of course wholly wheel-like, literally so. We observed previously in chapter 4 Duchamp's early commitment to rotational and grinding motives, then assigning to them the broad hermetic meaning of "Circulation." However, in this particular instance a "wheel"—*rota* in Latin—represents a central symbol in classical alchemy. The crucial, even universal, meaning of the hermetic *rotae* was explained in 1612 by Martinus Rulandus in his *Lexicon alchemiae* as representing "The Sequence of the Operations in the Hermetic Work." He goes on to explain that, "the Elementary Wheel of the Sages represents the conversion of the [Four] Philosophical Elements; that is to say, it stands for the transformation of Earth into Water, and then of Water into Earth. The Water contains Air, and Earth contains Fire. . . . To make the Wheel revolve [again] is to recommence Operations, either for the confection of the Stone or for the multiplication of its virtue."⁶⁰ While Pernety says almost exactly the same thing, he makes it even clearer that the wheel motif—*roue*—is the central symbol of the entire alchemical process:

WHEEL: This represents the sequence of the operations of the Hermetic Work. To turn a Wheel is to observe the Regime of Fire. To produce a circulation of the Wheel means to recommence the alchemical operations, whether by a production of the Stone or by its multiplication in quality. The Elementary Wheel of the Wise symbolizes the conversion of Philosophical Elements; this represents a transmutation of Earth into Water, then of Water into Earth; Water encloses Air and Earth contains Fire.⁶¹

As we already saw, Albert Poisson also illustrated the hermetic wheel motif (*Théories*, 43: Planche III. See fig. 6), also observing, besides the odd existence of those notorious "métaux voisins," how "la génération des métaux est circulaire; on passe facilement de l'un à l'autre suivant un cercle" (23).

Duchamp enjoyed playing with his *Bicycle Wheel*, particularly when he viewed it set against an immaterial and fiery backdrop; as he recalled, "to see that wheel turning was very soothing, very comforting, a sort of opening of the avenues on the other things than the material life of every day. . . . I enjoyed looking at it, just as I enjoy looking at the flames dancing in a fireplace."⁶² Not surprisingly perhaps, Rulandus now provides us with the strictly alchemical explanation for such apparently innocent pastimes in front of one's fireplace; quite simply, "To make the Wheel revolve is to observe the Regimen of Fire."⁶³ *Sic dixit Duchamp*, just like Pernety: "*Tourner la roue, c'est observer le Régime du Feu.*"

Just as Duchamp's *Bicycle Wheel* creates a prime geometric figure, the circle, as it turns, additionally this rotating circle naturally alludes to the idea of mobility. As Pernety put it, "en termes de Science Hermétique, CERCLE signifie la circulation de la matière dans l'oeuf des Philosophes."⁶⁴ Equally naturally, being self-propelled, this is an automobiline principle, one opposed to the idea of being fixed, and the Alchemists endlessly sought to fix the natures of their often volatile elementary materials. The base of Duchamp's pseudosculpture, the stool, stands on four legs, and in this manner it recreates the figure of a square. Having four corners, the square was nearly always taken as a convenient way to symbolize the Four Elements so essential to the primary initiation of the alchemical Work. As Duchamp's *Bicycle Wheel* rises upwards, another primary geometric figure is suggested, a triangle. The process of hermetic formal evolution culminates in an unbroken circle, a motif commonly taken to be a sign of the indivisible Onement. The wholly alchemical significance of the combination had been explained by Antoine-Joseph Pernety as a sign of the "ANGLE: The Thing With Three Angles." Clearly in this case,

This [*chose à trois angles*] is a term belonging to Hermetic Science. The Hermetic Philosophers speak of their Matter, or Philosophical Mercury, as being a thing which has three Angles in its Substance, four in its Power, two in its Matter and one at its Root. Whereas the three angles are Salt, Sulphur and Mercury, the four angles are the Elements. Whereas the two represent the fixed and the volatile, the one stands for the extended matter [*la matière éloignée*], that is, Chaos, from which everything has been made.⁶⁵

In conjunction, all of these basic geometric figures—square, triangle, circle—add up to another ubiquitous idea in alchemical symbolism, the "Squaring of the Circle" (*Circulum in Quadrangulum*). The iconographic particulars of this perennial problematic have been best illustrated by the often reproduced twenty-first emblem in Maier's collection: "Fac ex mare et foemina circulum, inde quadrangulum, hinc triangulum, fac circulum et habebis lapis Philosophorum" (fig. 15). We are instructed in Maier's epigram to: "Make a circle out of a man and a woman, from which a squared body arises with equal sides. Derive from this a triangle, touching on all its sides a round sphere: At this point, the Philosophers' Stone will come into existence! If such a great thing is not immediately clear in your mind, then you should know that, once you understand the theory of Geometry, then you will understand everything."⁶⁶ In the Discourse following it is further explained that, even though this *arcanum* is now forgotten,

The Natural Philosophers did, however, know of the Squaring of the Circle. This appears from their recommendations to change the circle

into a square, and the square into a triangle, and the triangle into a circle. By the *circle*, they mean a simple body, and by the *square* they mean the Four Elements; as this square is physical, thus it corresponds with Nature. . . . In the same way, the Philosophers want the square to be changed into a *triangle*, which is to say, changed in body, in spirit, and in soul. . . . With that action, the Triangle is completed, but, in its turn, this last figure should be transformed into a circle, which means that it has to be transmuted into unchangeable redness. By this action, *Woman* additionally turns into *Man*, and together they thus become *Unity* [and so they] have returned to *Monad*, in which state there is rest and eternal peace.⁶⁷

As we also note here, there is another potential action, androgyny in short: “Qui operatione foemina in masculum conversa et unum quid cum ipso facta est”—Woman turns into Man and, together, they thus become Unity. The specifically hermetic-alchemical kind of androgyny is an important topic to which we shall return, to consider the manner that it was variously illustrated in Duchamp’s oeuvre—even by him[her]self (fig. 20; see also MD-121, MD-128, MD-129, MD-136).

Another zoomorphic and allegorizing, variation on the basic idea of the “Wheel of Alchemy”—Pernety’s and Poisson’s *CERCLE* (fig. 6)—is provided by Michael Maier in the form of a picture of the *ouraboros*, that is, a dragon devouring its own body beginning at its tail (fig. 16). The fourteenth emblem of the *Atalanta Fugiens* shows us this self-consuming beast: “Hic est Draco caudam suam devorans.”⁶⁸ According to Maier’s epigram, “An atrocious hunger taught the Polyps to gnaw at their own legs, and taught men to feed on human flesh. Now the dragon, while it bites itself in its tail and devours it, and itself for the most part, becomes food for itself. This dragon will have to be conquered, by the sword, hunger and imprisonment, until it devours itself and spits itself out, kills itself and generates itself again.” In the discourse immediately following, it is further explained that, “herewith the Four Elements—Fire, Earth, Air and Water—are mentioned. . . . Alchemists connected [the circle] in the first place with their own work, and by the Dragon devouring its fellow being, they mean the Sulphur proper, just as many authors state in numerous places.” Ever the scrupulous alchemical scholar, Maier goes on to cite many hermetic authorities to this effect. The alchemist-savant’s conclusion is that the encircled dragon “digests the unstable poisonous and moist part” of the alchemical materials. The Discourse closes with another allusion to the ubiquitous Philosophers’ Stone, terming it “the most effective medicine against misfortune and illness.”

Quickly following the symbolic *Bicycle Wheel*, Duchamp’s second ready-made, called *Pharmacie* (MD-88),⁶⁹ was executed in January 1914. Its overt art-historical significance is that it is the first titled and signed ready-made.⁷⁰ This is another literalist *objet trouvé*, a mass-produced print of a wintry

landscape showing a pond of water set in a frigid forest. Regarding the title (*motto*), first one brings up an obvious point: a drugstore (*pharmacie*) obviously could refer to Alchemy, itself by far the most pharmaceutical of all the arts attached to the Esoteric Tradition. No matter, we have at hand better proof for that assertion. The artist recalled that he had “bought the reproduction of the landscape in an artist’s supply store,” and this cheap lithograph was “rectified” by Duchamp with the simple addition of two dots of paint in the background. As he stated, “by making the red and the green [dots], it resembled a chemist’s shop,” and added later that the red and green dots somehow corresponded to “two personages” standing by the pond of fresh water.⁷¹ He liked this image so much that he did it three times (the other two versions are lost).

The strictly alchemical symbolism of the two colors is obvious; according to Rulandus, *red* signals “the happy ending of the Alchemical Work.”⁷² As for *green*, besides meaning “Go!” in modern automobiline parlance, one reads in the *Turba philosophorum* that the Stone of the Philosophers goes by many names, but “certain wise men have designated it after one fashion, namely, [as] founded upon its color, some of whom have termed it the Green Stone, or Green Lion.”⁷³ A modern student of alchemical art, Jacques van Lennep, explains that commonly “the Green Lion symbolized raw matter in its rawest state while the Red Lion represents the same matter following after the actions of several operations. In brief, these [two colors] stand for all the distinctions existing between raw [green] matter and fully cooked [red] matter that has been worked on by the Alchemist.”⁷⁴ More to the point is the statement published by Pernety in 1787: “Our Alchemical Water acquires the names of the leaves of all trees, of the trees themselves, in short of every thing which presents to us a green color, and it does so [i.e., is ‘green’] with the purpose of tricking the unknowing.”⁷⁵ Such thoughts seem naturally to attach broadly to the notoriously ambiguous archives stuffed into a *Boîte Verte*.

Since Duchamp deliberately chose a ready-made print with a *Winter* landscape for his *Pharmacy-Drug Store*, then we may even suspect an ulterior purpose in the choice of the particular season so depicted. In this case, the most likely *raison d’être* is quickly supplied by Pernety, speaking of the alchemical symbolism of winter (*l’Hiver*), a time when greenery naturally disappears:

The Sages have given on various occasions this name [“Winter”] to their Mercury, but they commonly make use of it in the strictly allegorical sense, in which case it signifies the beginning of the [Alchemical] Work, the time which precedes putrefaction. That is the reason why they commonly say that the Work must begin with Winter, and that it is finished in the Autumn. Just in the same way, Nature seems to be dead in Winter, and it is no longer producing anything; in the same way, the

Mercury of the Philosophers is only disposed to generation, but which it can not do without corruption, and corruption is only achieved through putrefaction.

For Pernety, the proper conclusion to be drawn is obvious: "It is in the time of the Philosophical Winter that Mercury is mortified, so permitting that the Earth may conceive, and that it can in this way change in nature."⁷⁶ In short, in winter everything stops, as signalled by a red light, whereas in spring (see fig. 3) everything can go, as on a green light.

The pond placed in the foreground of Duchamp's winter scene obviously contains cold, fresh water. Michael Maier depicted the cleansing of the Philosopher's Stone in a frigid body of water in his thirteenth emblem, described by its motto to represent "The Ore of the Philosophers."⁷⁷ As he explains, this material, *Aes Philosophorum*, "is dropsical and wants to be washed seven times in the river, just as the leprous Naaman washed himself in the Jordan." According to the epigram, "the sick Ore of the Wise is entirely swollen by dropsy, and therefore it yearns for the beneficial waters. . . . It is washed in its waters three and four times: So throw your body into the sweet water and soon that will bring the strength of health in cases of disease." In the discourse following, it is said that "in Alchemy, warmth and dryness exclusively possess the force of giving color." The stage of total, virginal purity is signalled by the color white—a virtuous and immaculate white, like that of a snow-clad landscape. This concept perhaps also best explains why, in Note 1, Duchamp's *Mariée* must have her very own "water-cooler" (*refroidisseur à eau*), which was so employed "to express the fact that the Bride warmly rejects [her alchemical suitors], not chastely."

As we saw, in 1915 Duchamp went into a hardware shop in New York and bought for himself a common snow shovel; it became a ready-made once it became figuratively entitled by means of an inscription: *In Advance of the Broken Arm* (MD-102). Duchamp's comment on this once practical tool was typically oblique: "I was hoping it [the snow shovel] was without sense—but, deep down, everything ends up by having some sense."⁷⁸ Nonetheless, if this object were to be interpreted, given "some sense," in the simplest possible iconographical terms we would simply have to say that, it is a shovel, one moreover specifically made to deal with snow. As such, a snow shovel was a uniquely American instrument, one Duchamp observed not to be found, or sold, in France. Additionally, a shovel is obviously an instrument acquired for purposes of digging or breaking ground; as, moreover, a snow-shovel, in this case the material to be dug up or overturned is white. These factors are the four intrinsic givens—shovel, snow, white, turning up earth, as in agriculture—that are attached to this particular *objet trouvé*. In short, we shall take Duchamp's seemingly mundane tool to potentially represent an instrument of profound symbolic significance.

The first question is why a snow shovel? For Pernety, “SNOW (*la Neige*)” represents the alchemical Magisterium during its “white” or mercurial stage, “because this is when a powder as white as snow is precipitated, and then the Alchemists say that ‘the snow’ must be cooked, meaning that digestion and the circulation of the composite must continue.”⁷⁹ In function, this particularly avant-garde snow shovel evidently also pertains to a larger thematic, that of the *Large Glass*, which Duchamp had described in one of his Notes as the specific representation of an agricultural machine, a “machine agricole” (Note 10). This said “agricultural machine” was later specified to function as a tool or instrument for plowing up fields in order that they may be subsequently seeded: “appareil / instrument aratoire” (Note 10). The Latin words for shovel, mattock, and spade are, respectively, *batillum*, *rastrum*, and *pala*; all three terms are mentioned in Rulandus’s *Lexicon alchemiae* as being typical instruments of the Alchemists.⁸⁰

Again Michael Maier explains the larger sense to all these pseudo-agricultural operations in his sixth emblem, “Seminare vestrum in terram albam foliatam,” meaning, “Plant your seed in white, flowering earth.”⁸¹ Into this literally snow-white landscape, according to the epigram, “The farmers entrust their seed to the earth after having prepared the field with their digging tools [*rastra*]. The Hermetic Philosophers have taught that gold must be scattered over snowy fields [*agros niveos*], and they react by pushing leaves upwards. When you undertake this, pay good attention to it because you see from the wheat produced, as in a mirror, that gold germinates.” The discourse following speaks of the alchemical farmer (*agricola*), “who also adds something to Nature: by plowing, fertilizing, and sowing.” As a result, says Maier, “agricultural activities in particular reveal the secrets of Alchemy.” Therefore, the conclusion is obvious to Maier and to all his better informed readers: “What more is necessary? Chemistry runs parallel in all ways to agriculture; the latter portrays all the alchemical activities in an allegorical manner.”

The *Atalanta Fugiens* may also be referred to in order to interpret the meaning of an often discussed drawing done by Duchamp in January 1914, and inscribed *Avoir l’Apprenti dans le Soleil* (MD-89).⁸² This simple sketch, drawn over a printed musician’s score, shows a youth on a *bicyclette* (*à deux roues*) strenuously ascending a tightrope. In this case, “the Apprentice placed in the Sun” is Marcel himself, a still youthful novice Alchemist, hence an “Adept,” the one whom he later described as representing “an ethical cyclist climbing a slope reduced to a single line.”⁸³ So what kind of an *Apprenti* is this one, particularly as associated with the Sun? Papus, the popular esoteric author of the Symbolist period, seems to provide the most cogent explanation. Speaking of the “Key to the Symbolic Grades: Apprentice,” Papus states that he belongs to the Sun: “In this case, the *l’Apprenti* shall become the Man of the Morning and of the Rising Sun.” Moreover, Papus specifically makes this novice into an “Alchemical Apprentice,” the one who deals

strictly with material substances as he begins his labored, à la Duchamp, rotary climb upwards towards mastery:

From the particular point of view of Alchemy, the first three symbolic steps or grades of Initiation [and next comes Companion and Master] symbolically represent or parallel the execution of the Alchemical Magnum Opus: the labors of the Alchemical Apprentice [*l'apprenti alchimique*] embody the material aspects of that operation. Coming in a circular fashion [as it were, à la bicyclette] out of the vulgar world, the Apprentice will later return to that place, but now in the condition of Master, that is once he has acquired Initiation into Occult Science.⁸⁴

The best illustrated explanation for why Papus's wholly esoteric *l'apprenti alchimique*, Duchamp himself, must place himself up "in the Sun" was likewise, but much earlier, provided in Maier's 45th emblem, "Sol and ejus umbra perficiunt Opus," that is, "The Sun and its Shadow Complete the [Alchemical] Work"⁸⁵ (fig. 17).⁸⁵ Prefiguring the conclusion reached in Jules Laforgue's poem *Encore à cet astre*, Maier's epigram explains the complete significance of the motif: "The Sun, the bright torch of Heaven, does not penetrate dense bodies; that is why there remains shadow on the parts turned away from it." Whereas the shadow pertains to those who only look up to the sky, *Sol* is the long expected portent of alchemical success seen by those who actually bother to lift (or pedal) themselves up to its solar heights; according to Maier, this is "because the Sun means the Consummation of the Art of making Gold." But Duchamp did not need to read Maier (or even Papus) to know this; Pernety also made the ubiquitous meaning of the Alchemists' Sun perfectly clear:

Among the Alchemists, the Sun [*Soleil*] means vulgar gold. The Hermetic Philosophers call their Sulphur and Gold "Sun." The Sun of the Wise with a mercurial source is the fixed part of the Matter of the Great Work, and the Moon means the volatile part. They also call "Sun" the fire which is within or innate to the Matter.⁸⁶

By common agreement, Duchamp's most famous, certainly most notorious, ready-made was that provocative *Fontaine* (MD-110) that the artist had signed with a fictitious name, "R. Mutt," in 1917.⁸⁷ It is, quite simply, a urinal turned upon its back. For all of its apparent meaninglessness and gratuity, this is still a striking object. It is known to every student of modern art, and it thus continues to exert a pervasive and persistent appeal. In February 1917, Duchamp got an idea for something unique to send to an exhibition being organized by the Society of Independent Artists, Inc., to be celebrated at the Grand Central Gallery in Manhattan. The solution occurred to Duchamp while he was conversing with the painter Joseph Stella

and Walter Arensberg, the covert cryptographer. Once the scheme was announced, these two sought to buy the needed object for Duchamp. Duchamp's contribution to the collective urinal project was to sign the piece. The pseudonymous signature, "R. Mutt, 1917," was placed on the upper side; thus the urinal had to be laid upon its back in order that the signature could be read.

Since art historians have long puzzled over the possibly emblematic significance of this pseudonymous signature, "R. Mutt," I may briefly propose three new explanations, all of which are in line with the cryptograms mutually practiced by Arensberg and Duchamp. As it turns out—and by Duchamp's admission at the time (April 1917)—the unnamed author was feminine, operating under a masculine pseudonym; as William Camfield suspects, perhaps "we have here an early appearance of Duchamp's alter ego, Rose Sélavy" (fig. 20).⁸⁸ Contemporaneously, in Spring 1917, the dispirited French Army had just disgraced itself by mass mutinies; in French argot, the "Grande Armée" was then commonly referred to as being *la grande muette*. More to the esoteric point is that, rendered phonetically (*à la française*), the name "R. Mutt" (in English, *are-MUT*) would be unquestionably be pronounced like *l'art muette*—meaning "mute art" (feminine case) in English. In this case, along with the strictly alchemical interpretations proposed here, the most important reference would be to a famous alchemical emblem book, the *Liber Mutus* or "Mute Book" of Alchemy (see figs. 4, 7). In the copy contained in the Bibliothèque Ste. Geneviève, which Duchamp would have had at hand, the given French subtitle is *Le Livre muet*, a reference to the same *art muette* of the historical Alchemists.

Duchamp later explained to Cabanne that his provocative exhibition piece "was simply suppressed . . . because the officials didn't know that it was I who had sent it. . . . The *Fountain* was simply placed behind a partition [in the gallery]. . . . No one dared mention it. I had a falling out with them, and retired from the organization." Although purposively wrought on this occasion, this falling out must remind one of the earlier contretemps provoked in 1912 by Duchamp's gratuitously inscribed *Nude Descending a Staircase* (MD-64), leading to his break with the Puteaux Cubists, an incident that was decisive, as he later recalled, in reorienting his whole artistic career, calling for "a complete revision" of his position, including a "thorough liberation" from his immediate past.⁸⁹ Long after, Cabanne asked the provocative artist if he was indeed "looking for scandal [in 1917]. Were you satisfied?" Purely as scandal, Duchamp acknowledged that his *Fountain*

was, indeed, a success—in that sense. . . . As it was, I was enchanted. Because, fundamentally, I didn't have the traditional attitude of a painter who presents his painting, hoping it will be accepted and then praised by the critics. There was never *any* criticism. There was never any criticism because the urinal didn't appear in the catalogue. [Arensberg

bought it] and then he lost it. A life-size replica has been made since then. It's at the Schwarz Gallery in Milan.⁹⁰

The eventual owner (or copyright owner) of the piece was the proprietor of that gallery in Milan, Arturo Schwarz. He stated that "the pseudonym adopted by Duchamp was meant to enforce the value of the choice," and he quotes an interview with the artist in which Duchamp apparently explained the convoluted grounds for his choice:

Mutt comes from Mott Works, the name of a large sanitary manufacturer. But Mott was too close, so I altered it to Mutt, after the daily strip-cartoon, "Mutt and Jeff," which appeared at that time, and with which everyone [in America] was familiar. Thus, from the start, there was an interplay of Mutt, a fat, little, funny man, and Jeff, a tall, thin man—I wanted any old name. And I added ["R." to stand for] "Richard" [French argot] for "money-bags." That's not a bad name for a *pissotière*. Get it? The opposite of poverty. But not even that much, just "R. Mutt." Again, this was an experiment concerned with choice. Choose the object with the least chance of being liked: a urinal. Very few people think there is anything wonderful about a urinal. The danger to be avoided lies in esthetic delectation.⁹¹

As, however, the careful research of Camfield now reveals, the name of the company in New York that actually manufactured this pre-eminent monument of the avant-garde was indeed the J. L. Mott Iron Works.⁹² Obviously, "Mott" the business triggered Duchamp's "Mutt," thus potentially offering the opportunity to disclose an *art muette*. Accordingly, at the very least Duchamp's blandly contrived explanation to Schwarz sounds deliberately disingenuous.

As it is now viewed, placed on its back, this *pissotière* (urinal) visually suggests a decidedly eroticized but not very esoteric anatomical configuration. The outline described by Duchamp's *Fontaine* resembles that of a uterus. Read as uterus or womb, the sculptural object then also displays a gaping vaginal opening centered below, just where such a corporeal aperture ought to be in real life. This is, however, an item manufactured strictly for masculine usages, meaning "pissing" (with a penis), so producing, at the end of micturation, "3 ou 4 gouttes de hauteur [que] n'ont rien à faire avec la sauvagerie" (see MD-106, a *peigne-pene-péne-penis*). Presented in isolation, admittedly this anatomical hypothesis is outrageous. Nonetheless, the artist's Notes provide concrete support for this kind of admittedly Schwarzlike interpretation. A handwritten aide-mémoire that perhaps dates from 1914 states the following: "—on n'a que: pour FEMELLE la pissotière et on en VIT."⁹³ That is: "—One only has: for female, the urinal, and one lives within it." Duchamp's Note 88 accordingly tells us that a urinal, in which (incongruously) there is life, stands for the feminine principle, a rather unique observation,

further borne out however by the actual womblike look of his porcelain artifact. In French, “womb” is *matrice* (from the Latin, *matrix*). According to Pernety’s rather standard definition of *matrice*, the term broadly stands for the “Alchemical Vase,” the heat-resistant vessel where the Alchemist-Artist “fait la fonction de la matrice, où se parfait la génération.”⁹⁴

Duchamp’s disagreeable artifact was moreover, according to the cryptic title given to it by its ready-maker, further transmuted into a *Fontaine*. This verbal title, or emblematic *motto*, tells us that it is a “fountain” while the familiar shape tells us that it is a “urinal,” what Duchamp directly referred to in his Notes as a *pissoitière*, or “piss pot” (Note 88). As for the implied action (micturition), as useful evidence one finds various old alchemical drawings illustrating the act of pissing, usually done, in fact, by a young boy or *putto*.⁹⁵ There is no need to show these earnestly urinating male children since Martinus Rulandus collectively calls their motif *Urina Puerorum*, “little boys’ urine,” and simply says that it is a standard sign of the Alchemists’ *Mercurius philosophorum*, that is, “the Mercury of the Philosophers, according to Artephius.”⁹⁶ Pernety directly spoke of an alchemical “Urinal,” describing this hermetic vessel as representing “le fourneau secret des Philosophes,” and also mentioning the “Urine d’Enfants,” that pungent fluid which alchemists “ont fait passer [pisser!] par toutes les opérations de l’Art.”⁹⁷ This specifically alchemical reference to the *Urina Puerorum* seems now confirmed by Duchamp’s installation of a copy of his *Fontaine* in the Janis Gallery in 1953, at which time he specifically directed it to be put low on the wall; just as he stated, “so that little boys could use it.” He also “attached a sprig of mistletoe to it, suggesting the coming together of male and female.”⁹⁸ This explicit double specification of *urina puerorum* and *coniunctio oppositorum* provides what the harried prosecutor-scholar would label another slam dunk *trouvaille*.

Even so named by its subtle author as a “fountain,” Duchamp’s celebrated urine collector is equally easy to decipher as a standard alchemical symbol. As we may suppose that Duchamp had read in his copy of Albert Poisson’s *Théories et symboles des alchimistes*, a *fontaine* is a place or object where “the King and the Queen come to bathe themselves; this object has the same significance as *bain*.”⁹⁹ Turning to this other reference, *Bain*, one reads that a “Bath” is, according to Poisson, a “Symbol: first, of the dissolution of gold and silver; second, of the purification of these two metals.”¹⁰⁰ Turning again to Pernety (evidently Poisson’s main source), we learn that, “in terms of Philosophical Chemistry, FOUNTAIN [*Fontaine*] usually signifies the matter from which one extracts the Mercury, which appears like a ponderously milky water which the Alchemists call ‘Virgin’s Milk’ [*Lait virginal*].”¹⁰¹ Rulandus also thought it worth discussing a long-winded *Allegoria Fontanae* (“Allegory of the Fountains”), the hero of which is the King, and “when the monarch is within the precincts [of the allegorical fountain], he first of all removes his vestment of fine cloth-of-gold, beaten into the thinnest leaves,

and gives it up to his first man, whom he calls Saturn." At the last stage, "then is the King in his clean shirt only, white as snow." All the attendants, representing symbolic stages of the *opus alchemicum*, "purge the King in the fountain." This allegorical set piece is followed in Rulandus' exposition by the emerald-green "Vision of Verdure," when into the fountain there is "placed a young, unspotted maiden with a strong, healthy, and excellent old man. Then he purged and purified the girl. . . ." ¹⁰²

As one might expect by now, Michael Maier had also illustrated the standard hermetic motif of the "Fountain of the Alchemists" (fig. 18). His fortieth emblem, "Ex duabus aquis, fac unam, et erit aqua sanctitatis," challenges the Alchemist to "make one water out of two waters, and that will be the water of holiness."¹⁰³ As treated by Maier, the two waters become a major symbol common to all hermetic thought: the *coniunctio oppositorum*, or union of opposites, that is, of opposing Male and Female Principles. This symbolism is explained in Maier's epigram:

There are two fountains, each spouting a clear, strong stream. One of them, the Little Boy's Fountain [*Fonte Pueri*], has hot water; the other, having cold water, is called the Stream of the Virgin [*Virginis Unda*]. Unite the one with the other, so that the two waters may be one: This [conjoined] stream will possess the forces of each of them, mixed together, just as the fountain of Jupiter Hammon is hot and cold at the same time.

Again you are reminded that Duchamp's *Fountain* had been set up, just as he stated, "so that little boys could use it"; accordingly, we may now assume that the artist consciously meant it to represent the *Fonte Pueri*. The discourse by Maier following explains that these alchemical fountains were discussed by Raimundo Lull in his *Quinta Essentia*, where the waters of one are said to have "solidifying, coagulating and hardening powers, and the other a volatile, dissolving and softening power. From these two liquids one Philosophical Stone results."

From this strictly hermetic perspective, one now viewing a famous modernist urinal dubbed a "Fountain" as specifically resting upon the authority of the hermetic motif of the *coniunctio oppositorum*, we may throw some more useful light on one of the most prominent aspects of Duchamp's endlessly and usually fruitlessly discussed *Large Glass* (figs. 1, 11), namely the often remarked upon factor of overheated eroticism that so clearly emerges from even a cursory reading of Duchamp's Notes. As Poisson told us, "fountain" and "bath" mean the same thing¹⁰⁴—even if neither happens to look exactly like a modern urinal made by the J. L. Mott Iron Works in New York City around 1917. Michael Maier also illustrated the alchemical bath, or *balneum*, in which, as Poisson said, "the King and the Queen come to bathe themselves" (fig. 19). As shown by Maier in his thirty-fourth emblem, "In

balneis concipitur. . .,” it is also apparent that bathing is only the preface to heated lovemaking between King and Queen, standing for Sun and Moon, or Sulphur and Mercury.¹⁰⁵ Again we recall that Duchamp once let slip that his scandalous *Fountain* had been implicitly designed to “suggest the coming together of male and female.”

In translation, Maier’s *motto* states mysteriously: “He is received into the Bath, and he is born in the sky, but, having become red, he strides over the waters.” The epigram makes the situation much clearer, and here it is explained that the Bath is actually the watery nuptial chamber within which the Royal Couple mutually conceive the Philosophers’ Stone:

The Bath shines because of the conception of the Child, and the sky because of his birth. After that, red, he strides over the waters and he becomes white on the mountain-tops; it is he who remains the only object of the attentions of learned men. He is a stone and not a stone, and if somebody possesses this noble gift of heaven, a present from God, when he has it he will be happy.

In short, Duchamp’s uniquely amorous artistic scenario for the *Large Glass*—the cause of so much spilled ink as the only object of the attentions of so many learned art critics, beginning with André Breton in 1935¹⁰⁶—really concerns nothing more or less than the search for the ever elusive and all-powerful Philosophers’ Stone. So does his infamous “Piss Pot.”

Michael Maier will also help us later to interpret another one of Duchamp’s more notorious ready-mades, the cheap—and endlessly puzzling—defaced (or re-faced) postcard of Leonardo’s *Mona Lisa* (MD-121).¹⁰⁷ As alchemically transmuted in Paris by Duchamp in 1919, the operation simply consisted of debasing the famous art icon with a beard, and then defacing the traditional content of the prestigious painting with the addition of a scabrous inscription: “L. H. O. O. Q.” This code is easily broken by any Frenchman: when he quickly pronounces the five letters, the less-than-poetic end result is: *Elle a chaud au cul* (“She’s got a hot arse!”). From the strictly physical perspective, a lady has been turned—or transmuted—into a man. Moreover, from a strictly hermetic perspective, the end result is much more specific, namely the purposeful creation of an androgyne, which is to say a hermaphroditic figure. Like so much else, Duchamp did not invent the idea of the androgyne.

It was, for instance, current in the same fin de siècle French occultist circles that had produced Albert Poisson and his book on *The Theories and Symbols of the Alchemists*. It was particularly in the Rosicrucian group surrounding Sar Joséphin Péladan that the Androgyne became possessed of an emblematic, moral significance. Moreover, according to this famous occultist author and spokesperson, the pictorial emblem of the hermaphroditic act was itself none other than Leonardo’s *Mona Lisa*! According to Péladan himself, writing around 1890,

Leonardo had found the Canon of Polyclitus, which is called *l'androgynie*. . . . The androgynie is *le sexe artistique par excellence*. It confounds the two principles, *le féminin et le masculin*, and it balances out one against the other. Every figure which is exclusively masculine is wanting in grace, and all other figures exclusively female are lacking in force. In the *Gioconda* [or *Mona Lisa*] the cerebral authority of the man of genius confounds female voluptuousness with gentility: *C'est de l'androgynisme moral!*¹⁰⁸

In short, but as everyone seems not to have noticed, Sar Péladan had made the *Mona Lisa* into a man—and he did so long before Duchamp ever got around to repeating the hackneyed hermaphroditic gesture. Duchamp's infamous image, gratuitously turning Leonardo's *Gioconda* into a man, exactly conforms to Péladan's conclusion: "This is a moral androgyny! Unsurpassed artistic sexuality!"

Before dealing with this transmuted Leonardesque lady further, we may consider briefly some of Duchamp's contemporary, but less overtly hermetic, self-disguises. The first figurative transformation, now finally to be seriously considered in an interpretive context, was truly ephemeral, a kind of symbolic tonsure. This was an esoteric haircut—leaving a cometlike, five-pointed star (*étoile*) on the back of his head, literally over "the mind," with a shaven comet tail extending towards his forehead; this Duchamp had performed on himself in Paris in 1919 (and then photographed), and the barber was Georges de Zayas, a New York Dadaist.¹⁰⁹ Well might one ask, why a star? No big problem this; any well-informed reader would have already recognized this to be a common occult symbol, the pentagram (or tetragrammaton). To cite but one of many available esoteric authors, this motif was discussed at some length, and also illustrated, by Éliphas Lévi in his *Dogme et Rituel de la Haute Magie* (1856). As explained by this modern Magus, the Pentagram principally turns out to be yet another sign of the alchemical *opus*:

The [five-pointed] Pentagram signifies the domination of the mind over the Elements, and [stands for] the demons of *Air*, the spirits of *Fire*, the phantoms of *Water*, and the ghosts of *Earth*; all are enchained by this sign. Equipped therewith [even on one's scalp], and suitably disposed, you may then behold the Infinite through the medium of that faculty which is like the soul's eye, and you will be ministered onto by legions of angels and hosts of fiends. . . . It follows that, by means of the imagination [operating in your head, perhaps even under a star etched into your scalp], demons and spirits [representing the Four Elements] can be beheld, really and in truth; but the imagination of the Adept is diaphanous, whilst that of the [vulgar] crowd is opaque. . . . The Pentagram is called in Cabbalah the Sign of the Microcosm. . . . By the Pentagram also is measured the exact proportions of the great and unique Athanor necessary to the confection of the Philosopher's Stone and to the accomplishment of the [alchemical] Great Work.¹¹⁰

In his *Traité Élémentaire de Science Occulte* (1897), Papus, the acknowledged follower of Eliphas Lévi, made the meaning of Duchamp's Pentagram even simpler: "Les magiciens se servent, pour agir sur les esprits, du Pentagramme." In short, all self-styled Magicians take advantage of the starlike Pentagram in order to activate the Spirits of the Other World. So much for Duchamp's emblematic haircut.

The solution of that esoteric sign was simple enough. Rather more complicated is the meaning of the *Obligations pour le Roulette de Monte-Carlo*, lithographed by Duchamp in 1924 (MD-136).¹¹¹ Although I have not been able to find any documentation proving that Duchamp or Walter Arensberg knew of this precedent, it is known that a prominent British occultist group, "The Magicians of the Golden Dawn," had already published a similar oath in 1902. The text of their printed greeting card states in part: "OBLIGATION: To make your Season Gay & Bright, Now's your opportunity, Come and join as Neophyte, Our THEOCRATIC UNITY," and the rest asks the Neophyte to "solemnly PLEDGE and PAWN yourself" to a number of mock obligations, typically declaring "That I will keep secret all things connected with the Order and its Secret Knowledge, from the whole world."¹¹² In short, such *Obligations* provided diversions among Occultists during Duchamp's youth.

Be that as it may, in this case it was Man Ray who actually took the famous photograph of Duchamp adorned with soapsuds covering his chin and scalp. Jean Clair reads the result as a devillike face, "une facies méphistophélique."¹¹³ Man Ray also explained that, at this point, Duchamp "took up roulette":

He studied the monthly sheet of all the numbers that came up, as published by Monte Carlo, and worked out a system of placing his money that would infallibly bring in a return profit. But, to turn his project into practise, capital was needed. He obtained a loan of about six hundred dollars, from various friends, as guaranteed by an issue of thirty bonds at twenty dollars. The form in which he designed it was a lithograph of a green roulette table, bearing a red-and-black roulette wheel with its numbers. In the center was a portrait of himself, but this portrait, which I made for him, was taken while his hair and face were in a white lather during a shave and a shampoo. Otherwise the bond looked quite professional, with a complicated engraving and script, as well as interest-bearing tabs to be paid periodically. . . . The bonds are now collectors items, very rare, and now are worth much more than the original investment.¹¹⁴

The reader by now recognizes fact of a symbolic value routinely attributed in hermetic thought to the colors "green" and "red-and-black"; now also obvious is the parallel significance of that "wheel with its numbers." Similarly,

like the initially cast-off *lapis* (fig. 14), only later is its real value recognized; then choice examples “are worth much more than the original investment.”

On yet another front, in effect Jean Clair was dead right; the artist *had* pictured himself as a kind of Mephistophelean devil. This demonic transformation is especially made clear by the lather imitating the pointed Van Dyke beard of a he-goat, or *barba de chivo* in Spanish. Even more obvious are the curled, goatlike horns rising from Duchamp’s suds-shaped head. Éliphas Lévi, one of many, easily accessible esoteric authors who discussed the demonic goat motif, had also drawn a portrait—which he proudly signed: *delineavit*—of “The Sabbatic Goat” in his book *Dogme et Rituel*. Even better, just as he previously described the magical Pentagram now decorating the goat’s forehead, Lévi explains his horned he-god, specifically as an alchemical device.

Perhaps more significant, especially in the light of what follows here, Lévi also specifically describes his symbolic figure as representing an androgyne. He observes that the hermaphroditic creature is inscribed with a familiar alchemical formula: “The magical androgyne depicted in the frontispiece of the *Ritual* has SOLVE inscribed upon the right and COAGULA on the left arm.” More specifically, his picture grandly represents “a monster throned upon an altar, mitered and horned, having a woman’s breasts and the generative organs of a man: a chimera, a malformed sphinx, a synthesis of deformities. Below this figure we read a frank and simple inscription: THE DEVIL.” This androgyne represents, Lévi makes clear, “the bearded idol of the Alchemist, the obscene deity of the Mendes, the goat of the Sabbath. The frontispiece to this *Ritual* reproduces the exact figure of this terrible emperor of night, with all of his attributes and all his characters.”¹¹⁵ Likewise, we may now believe that the goatish Duchamp depicted upon the *Obligations pour le Roulette de Monte-Carlo* represents “the bearded idol of the Alchemist.” This supposition becomes even more plausible once we closely examine Duchamp’s most notorious self-transmutation.

Beginning in 1920, Duchamp himself took on a metaphorical sex change as a public gesture.¹¹⁶ He changed his name to “Rose Sélavy”—which is just another way of spelling “Eros: C’est la vie!”—and, in 1921, his colleague Man Ray photographed him in woman’s clothes (MD-131, likewise MD-128, MD-129) (fig. 20).¹¹⁷ Duchamp later explained his outrageously androgynous posture as follows: “In effect, I wanted to change my identity, and the first idea that came to me was to take a Jewish name [but] I didn’t find a Jewish name that I especially liked or that tempted me, and suddenly I had an idea: why not change sex?” Typically, Duchamp’s conclusion is disarmingly bland: “It was much simpler. So the name Rose Sélavy came from that.”¹¹⁸ This is demonstrably nothing but subterfuge, a droll ruse to cover up Marcel’s major disguise, the culminating, self-fashioning fiction of his entire career. In short, he had made himself into a living, symbolic representation of the goal of the entire *opus alchemicum*. And there is a well-known historical, specifically eso-

teric precedent for this auctorial alter ego, namely Alphonse-Louis Constant, a former Catholic monk who also changed himself (ca. 1855) into a person with a “Jewish name”: *Éliphas Lévi Zahed*.

But, in Duchamp’s case, why “R[r]ose,” and more specifically how does this rosy lady actually represent *Éros*? The answer is “Venus,” the Goddess of Erotic Love and mother of Eros, whose emblematic attribute was a “rose.” For this too we find a standard literary precedent, in this instance one specifically hermetic, further showing the Rose of Venus to have been a standard alchemical symbol. Once again we must turn to Dom Pernety’s wonderfully exhaustive *Dictionnaire Mytho-Hermétique*, where we find the appropriate headings “ROSE,” “ROSÉE” (even including mention of one “Abraham the Jew”):

ROSE: Mythology explains that the flower called the rose was sacred to Venus because a thorn from a rosebush wounded that goddess when she came to the aid of Adonis while he was dying, and then his blood stained red that flower which had only been white beforehand. . . . This only signifies [for Alchemists] one thing: the color changes in the Hermetic Matter, from white to red, while it is passing through an intermediary stage called “Venus.” Likewise, one often reads in hermetic treatises that the rose is a symbol for the red and white color phases. Nicolas Flamel explains that Abraham the Jew [*le Juif*] had planted a rosebush with white and red blooms upon the top of a hill where the winds blew violently. Accordingly, their *white rose* is the alchemical matter during the white stage and their *red rose* represents their golden sulphur.

And the “rosy” alchemical complements enumerated by Pernety include these:

MINERAL ROSE is Philosophical Gold; according to Rulandus, often the ROSE stands for tartar. ROSE OF LIFE: According to Manget, this [*Rose de Vie*] is a liquor made with *eau-de-vie* and a tincture of all-pure gold; this is extracted by means of the spirit of salt [*l’esprit de sel*], all of which is to be mixed together with salt of pearls. ROSARY: Doubtlessly basing their opinion upon the authority of those Hermetic Authorities who state that the Rosary [*la rosée*] was the repository of the Universal Spirit of Nature, many Alchemists have regarded the Rosary of the months of May and September as representing the matter of the Hermetic Opus. [A general conclusion is that] this is a properly metallic *Rosée*, meaning their mercurial water when it is distilled into vapor within the vessel, then falling down inside in the form of a rosary or a gentle rain, and they likewise speak of the Rosary of May as being their Philosophical Springtime. CELESTIAL ROSARY is the Mercury of the Philosophers. SOLAR ROSARY: see “GOLDEN SHOWER.”¹⁹

One will additionally note here in passing how Marcel’s “Eros, c’est la vie” does indeed sound very much like Pernety’s “Rose de Vie,” embellished with

those salty *perles*, which actually do appear in yet another of Marcel's transvestite manifestations, that is as *Belle Haleine* (1921: MD-128, MD-129).¹²⁰ Overall, it all fits together rather nicely, soundwise and sensewise.

A literal illustration of the primary textual evidence, further establishing the central interpretive point about Marcel's figurative hermaphroditism as standing for a specifically alchemical persona, is again to be found in the *Atalanta Fugiens*, that convenient pictorial storehouse of nearly all the conventional wisdom propelling traditional alchemical symbolism (fig. 21). Maier's thirty-third emblem depicts the "Hermaphroditus" of the Alchemists, roasting on a grill like St. Lawrence. However, quite unlike the martyred saint, this creature, like Lévi's "Sabbatic Goat", is a curious hybrid, with a woman's breasts and the genitalia of a man. Maier's motto explains that "The Hermaphrodite, resembling a dead person lying in the dark, needs fire." According to the proclamation of the epigram, "Look, the two-headed Hermaphrodite resembles a dead person. When his moistness has been taken away from him, [and] when he hides himself in the dark night, he needs fire. Give it to him, and then life will return immediately. All the power of the Stone lies hidden in the fire; all the power of Sulphur is in the gold and that of Mercury is in the silver." The discourse following additionally informs us that

From the secrets of Nature it is known that, when Winter comes, frogs and swallows hide under the water and remain lying there as if they were dead. With the renewed warmth of the Sun in Spring, feeling and movement return to them. . . . In the same way, the Philosophers speak of their Hermaphrodite, who lies in the dark and seems to be dead and needs so the warmth of fire.

Thus we learn an important fact: every self-respecting hermetic Hermaphrodite "needs so the warmth of fire." This point made, then the discourse introduces the topic of a mythical bird, namely, "the Phoenix [which] is unique: it renews itself in the flames and rises revived from the ashes." Nevertheless, explains Maier, "the Phoenix is the Hermaphrodite with the mixed nature, of which the Philosophers speak: it has a male nature and a female one, and one of these natures passes into the other by means of the addition of heat; in this way, a woman becomes a man." Likewise, when a woman—Mona Lisa—becomes a goateed man, and specifically "by means of the addition of [alchemical] heat," quite logically, "*Elle a chaud au queue!*"¹²¹

As additionally appears to have been the case of a covert transmutation of Marcel Duchamp into Rose Sélavy, Maier says, "that this [mutation of gender] does actually happen in the Philosophical Work need not be a surprise. There are some people, if we may believe the stories, who also change their sex. Thus the Poets tell us about the sex changes of Cenea Iphis and Tiresias [and various others]." In more modern times, continues Maier,

We saw how a famous surgeon, Caspar Tagliacozzo da Bologna, made a hermaphrodite into a man by making an opening for the penis and by closing the female aperture. But the Alchemical Philosophers do not need these surgical operations. They only speak [metaphorically] of “Female,” where the coldness and moistness of the Moon is present, and of “Male,” where the heat and dryness of the Sun is present. Where, additionally, all the Four Properties are present at the same time, only then do they speak of a “Hermes-Aphrodite.”¹²²

To complete the reconstruction of Duchamp’s avant-garde, allegorical, and self-fashioning tableau of the hermaphrodite Rose Sélavy, whom we may now take simply to represent “The Hermaphrodite of the Alchemists,” we must refer back to Maier’s thirty-fourth emblem (fig. 19). The engraving shows the amorous coupling of the Royal Couple in the alchemical Fountain. As so often occurs, due to unchecked erotic activities, pregnancy ensues as a matter of natural course. Accordingly, the thirty-eighth emblem following in the *Atalanta Fugiens* shows the Royal Couple, Hermes and Aphrodite, being crowned by their much beloved offspring, “Hermes-Aphrodite.” (fig. 22). As the Motto explains, “Like the Hermaphrodite, the *Rebis* [double-thing] is born out of the two mountains, that is, of Mercury [*Hermes*] and of Venus [*Aphrodite*].” As is stated in the epigram below, “In Antiquity they called a two-fold being a ‘*Rebis*’ because it is man and woman in one body: the Hermaphrodite. It is said that the Hermaphrodite is born on two mountains: this is to whom the all-feeding Venus gave birth for Hermes. Do not despise the bi-sexual being because it is Man as well as Woman, together, or one and the same, and this is who will give birth to the King for you.”¹²³

The explanation of the Androgynus of the Alchemists is continued by Maier in the discourse following: “When asked where their Hermaphrodite comes from, the Philosophers would answer that [like the Philosophers’ Stone] it was from the Earth and can be found wherever there are Elements in all corners of the Earth, because it is the Son of the Philosophers.” Maier’s arguments conclude by posing a question that should have been asked long ago about Marcel Duchamp’s notorious alter ego, Rose Sélavy:

Who does not take note of the *Androgynus*, two-headed, who is Man and Woman at the same time? It is known as far as India, and its fame is greater than that of Alexander the Great. A great many people set out to see and to speak to a man who has become known by his exploits or his knowledge. Nevertheless, a great many more people would travel to those mountains of the *Rebis*—if only they knew where to go.¹²⁴

Presently, at least in avant-garde circles, since he has posthumously become an artist “who has become known by his exploits or his knowledge,” truly Duchamp himself “is known as far as India, and [his] fame is greater than that of Alexander the Great.”

A few months before, an anomalous apprentice was “put into the Sun” by Marcel Duchamp in 1914 (see MD-89), and drawn upon a blank musical score paper, the elusive artist composed a couple of unique musical scores, notes and all. Alas, the real significance of this anomalous tuneful exercise seems to have completely eluded art historians, musicologists too. Additionally, because one of the two musical compositions again bears the inscribed title of the *Large Glass*—“*La Mariée mise à nu*” (MD-78)—the matter obviously (finally) warrants some serious investigation.¹²⁵ This particular piece is a three-part canon. From the lengthy inscription Duchamp put upon his score, it becomes evident that, on one level at least, he was again expounding a standard system of occult numerology. “Each number,” he stated, “indicates a note [and] the order of succession is, according to taste, interchangeable. . . . It results from the equivalences of the periods and of their comparisons [as] a kind of new musical alphabet, permitting model descriptions; [an idea] to be developed.”

The general meaning of this typically oblique statement can be understood in the context of Alchemy, and viewed from various angles. As we learn from Thomas Norton, in his *Ordinall of Alchemy* (first published in 1618, as edited by Michael Maier), music had long since been held up as a paragon to the Alchemists since it captured “the harmony of Nature.” Norton urged his readers to: “Combine your elements musically, for two reasons: first, on account of melody, which is based on its own proper harmonies. Join them according to the rules which obtain in music in the proportions which produce musical consonance, for these musical proportions closely resemble the true proportions of alchemy.”¹²⁶ Since this statement, as included in the *Hermetic Museum*, had been translated into English in 1893, it was probably known to Walter Arensberg.

Another approach looks at the short text belonging to Duchamp’s other score of 1913, the *Erratum Musical* (“Musical Misprint”: MD-77), which briefly enjoins the operator to: “Make an imprint; mark [the] traits [of] a figure on a surface; imprint a seal upon wax [*un sceau sur cire*].” Pernety again proves an essential source by which to unravel the hidden meanings of this typically cryptic Duchampian injunction, for he reminds us that, for the Alchemists, “Wax” (*Cire*) is the strictly hermetic “Matter of the Wise pushed into the white stage” of the alchemical Opus. With this “wax,” he states, one makes a “Seal” (*Sceau ou Sêel*), and the verb *sêeller* means that the Alchemist “seals his vase, closing it hermetically,” or, in a complementary fashion, hermetic “*sealing* is fixing Mercury by means of Philosophical Sulphur.” As for the actual *Sceau* mentioned by Duchamp, for Pernety this motif can just stand for the “Philosophical Matter in the Black Stage” (or putrefaction) or, more broadly, this Seal becomes “Le Sceau Hermétique.” In the second sense, we must understand that “the vulgar kind of Hermetic Seal is of three kinds, and it is made by melting the wax over a lamp,” thus it physically serves to “seal” different kinds of alchemical vessels, thereby “preventing air from

either entering or leaving” those vessels. Among all these hermetic seals, most important however is the strictly allegorical “Seven Seals of Hermes,” for those hermetic seals collectively symbolize, states Pernety, “all the secret operations of the philosophical endeavor.” Another allegorical capping action is called “Sealing the Mother within the Belly of her Child.”¹²⁷

Nevertheless, it is mostly in the iconographic context of the *Atlanta Fugiens* that Duchamp’s odd, and previously completely unexplained venture into musical composition acquires important meaning. As it turns out (and as Walter Arensberg must also have known), Maier’s is the *only* alchemical publication, illustrated or not, that is known to have contained complete musical scores, in fact one for each one of his fifty emblems.¹²⁸ Among this other claims to fame, Maier was a pioneer “Alchemist-Musician.”

In his Preface (“Ad Lectorum”), Maier tells his readers that he wants his hermetic message to come across to the reader’s intellect by means as much audible as visual, as it were, “loud and clear.” As he further explained, “we are conjoining the Optical with the Musical, and the Senses with the Intellect, that is, the scatterings of Sight and Hearing with those of emblematic chemistry.”¹²⁹ Long before the advent of Richard Wagner, Michael Maier was, therefore, the precocious advocate of a tripartite *Gesamtkunstwerk*, that is, an art of synesthesia. For his pioneering enterprise, Maier cites the precedent and authority of Pythagorus. This was the Greek philosopher and mathematician who had heartily commended the study of music to his disciples since this was an art which specifically “excited the passions” (*ut affectus excitet*) according to the musical modes employed by the operator. In practice, these *modi*, mainly Phrygian or Ionian, were largely geared to either the bellicose or the amorous emotions. Like Duchamp’s canon scored for three voices—that is, for his sisters, Yvonne and Madelaine, and for Marcel himself—so too were Maier’s fugues in three parts: *ad tres illas voces adaptata*.

In this instance, Maier’s hermetic voices were identified as (rather than as Yvonne, Madelaine, and Marcel himself), respectively, “Atalanta,” “Hippomenes,” and “Pomum Morans.” The last allegorical figure was an “apple,” a golden fruit “retarded”—“en retard,” as Duchamp had also put it—or, according to Maier, “delayed” (*morans*) in its collection.¹³⁰ The term *en retard* (slowed) is a key motif in the *Large Glass*, where it is used as a “kind of sub-title [:] Delay in Glass. Use ‘delay’ instead of picture or painting” (Note 7). According to Duchamp, “le mot ‘retard’ . . . c’était réellement poétique, dans le sens le plus mallarméen du mot, si vous voulez.”¹³¹ Besides granting the *Large Glass* to be generally poetic, one would now further specify its origins as being *de la poésie alchimique*, given that a theme constantly repeated in the treatises cited here is the lengthy delays experienced by the Alchemist in arriving at the desired goal. According to some texts, a period of a year or more was not uncommon.

These three emblematic personages—Atalanta, Hippomenes, and Pomum Morans—were all illustrated on the title page/frontispiece to the

Atalanta Fugiens. Surely Duchamp knew this engraving; it was reproduced by his accomplice Walter Arensberg in his *Shakespearean Mystery*, (1928: plates 91–108); besides illustrating the title page from Maier's *Atalanta Fugiens*, also reprinted there were Maier's emblems 2, 4, 5, 6, 7, 22, 23, 24, 27, 30, 33, 34, 38, 39, 41, 44, and 50. Maier's handsome plate shows a landscape identified by the alchemical author as representing "The Gardens of the Hesperides," a place where the golden apples grow—and also a standard geographical topos in the alchemical lexicons.¹³² The scenario laid out in Maier's multipartite picture (an example of simultaneous narrative) is paraphrased from Ovid (*Metamorphoses*, 10, 560–707). From this classic work we learn that Atalanta was an athletic huntress. Her way to dissuade amorous suitors was to challenge them to a race, the loser of which was to be punished with death. She remained unbeaten, and thus still continued as a chaste virgin, that is until Hippomenes made his brazen challenge to her volatile swiftness. As they ran, he cleverly dropped at his feet three golden apples, given to him by Venus. Since Atalanta could not resist collecting the bright spheres, she lost the race of chastity. As a result, the two former contestants became hot lovers in a temple of Cybele—a goddess symbolizing the orgiastic powers of Nature—and this coy edifice was appropriately erected within the verdant luxury of the ever fruitful Gardens of Hesperides.

As Maier explained his alchemical and decidedly erotic, interpretation of the often quoted Ovidian narrative, "when the suitor had repeated the allurements three times, Atalanta was given up as a prize to her victor. Hippomenes stands for the power of Sulphur; she, Femininity beaten in the race by Maleness, symbolizes volatile Mercury. Later, [the result is that] they embrace one another in the sanctuary of Cybele due to their mutual sexual desire."¹³³ At this point, Maier introduces allegorical materials Ovid never imagined, namely the meaning of the alchemical-musical *fugae* that preface each of the fifty emblems that follow in the *Atalanta Fugiens*. "To the ends of faithfully expressing the [occult] significance of this race," Maier says, "my Muse offers to you a fugue in three voices [or parts]." Maier's fugal arrangements strictly conform to narrative characterizations:

Just as this Atalanta flees, the one voice flees time and again from the other one, and the other [male] voice pursues like Hippomenes. In the third voice, they are brought to a standstill; that third voice is simple and homogeneous in its value, like the golden apple. Therefore, this meritorious Virgin [Atalanta] is Alchemy, where Philosophical Mercury is put to flee from golden Sulphur. If they are fixed together and restrained, it as though he had made his appearance precisely in order to be espoused to her.¹³⁴

Thanks to Maier's more or less explicit statements, once again the both the title and the central leitmotif of Duchamp's acknowledged masterwork, *La*

Mariée mise à nu par ses Célibataires, même—referring to the courtship of a chaste virgin by overheated suitors in hot pursuit of the elusive fruits of Philosophical Gold—are directly tied to yet another standard alchemical text (as was its preparatory sketch, fig. 8).

In any event, Duchamp himself had tied this same title, *La Mariée mise à nu*, to his own, Maierlike musical fugue (MD-78). Likewise now tied to common alchemical symbolism is Duchamp's unique effort at musical composition, itself probably explicitly hermetic in its formal realization and initial purposes. Duchamp's musical hermeticism most likely has a decipherable formal component. Unfortunately, since I am myself quite unable to read musical scores, I must leave to a properly trained musicologist the onerous task of matching the strictly formal details of Duchamp's and Maier's scores. In any event, the matter of analogous content and purposes between Maier's and Duchamp's three-part fugues seems now perfectly clear.

Having assembled and analyzed various textual contexts for these iconographic materials, we may present this particular instance of musical *Hermetica*, among our many other telling exhibits, as sufficient evidence to demonstrate that Marcel Duchamp, the foremost role model of contemporary avatars of the avant-garde, seriously trafficked in the iconography and ideas of both Renaissance *alchemy* and modernist *néo-Alchimie*. Moreover, he derived his putative hermetic motifs from esoteric materials which were both vividly depicted and textually explained—and then widely circulated—in the concrete form of certain published hermetic emblem books. In fact, as I discovered some years ago, a significant number of those old tomes on alchemy would have been directly available to Duchamp during his mysterious tenure as a librarian at the Bibliothèque Ste. Geneviève in Paris just before the outbreak of World War I (see works marked with # in the bibliography).¹³⁵ To anyone familiar with the extensive interpretive bibliography dealing with Marcel Duchamp, the alchemical-iconographic hypothesis can, perhaps uniquely, make some consistent sense out of an endlessly cryptic, but highly prestigious modernist corpus of heterogeneous artworks. This approach supplies what has been missing in interpretive Duchamp scholarship: both *sense* and *consistency*.

This critical lacuna is best filled by a closer look at the esoteric iconography of the alchemical art. Particularly the researcher must reveal the way that this kind of traditional iconography had become reconstructed in numerous publications, either originals, reprints, facsimiles, or interpretive digests, appearing in France from the Symbolist period onwards. In short, all the above merely clarifies the real significance of a usually overlooked remark made by Marcel Duchamp at the close of his long and enigmatic career. We have already pointed out in the introduction how the American conceptual artist Robert Rauschenberg recalled meeting in New York “Duchamp once, in 1963, [when] I said just one thing to him; I said, ‘I see you are into Alchemy.’ And he said, ‘Yes.’”¹³⁶

Since that single remark, made only in passing, seems as close as we are ever likely to get to a frustrated scholar's decisive proof, we have had to mount this relentlessly pursued case against Marcel Duchamp as the ready-made Alchemist of the Avant-Garde. The very lack of any overt admission by Duchamp that he was, in fact, pursuing Alchemy paradoxically constitutes, by itself, an obliquely stated admission. Such an outright admission Duchamp would have never dared to provide for his numerous exegetes, even though he did admit to them his use of some creative *échappatoires* (ruses). One well known example of his use of this word will suffice.

It will be recalled that in 1966 Pierre Cabanne had questioned Duchamp about his *Coffee Mill* (1911: MD-61; see chapter 4 for an interpretation of this work). Particularly Cabanne was interested to know whether this rotative and evidently symbolic image actually "had no symbolic significance?" Duchamp answered, as always blandly but now also literally evasively, that it had "none at all," but he did admit outright that his answer "was a sort of evasion [*échappatoire*]. You know, I've always had this need to be evasive [or 'slippery']—*il y a toujours eu chez moi ce besoin de m'échapper*."¹³⁷ To establish the particular point of a strictly alchemical derivation, thus explanation, for those *échappatoires* that Duchamp did confess to employing, once again we turn to Pernety's nearly inexhaustible *Dictionnaire Mytho-Hermétique*:

RUSE. The Hermetic Philosophers employ "*la Ruse*" [meaning: artifice, cunning, craft, deceit, a dodge or dodges, guile, trickery, wile, also *les échappatoires*, etc.] in order to hide the secrets of their Art [*pour cacher le secret de leur Art*], and they do so by pulling the wool over the eyes of those ignorant of Alchemy. In practise they have carried out this program by only "explaining" their activities by means of metaphorical terminology and through equivocations and enigmas, or even by allegories and fables. . . . The ruse is so necessary to them that, without it, they could never have succeeded in their endeavors. . . . Often Alchemists will introduce into their designs various kinds of contradictions. Whereas these equivocations are never intended for anyone who is informed about Alchemy, they certainly do cause considerable distress to those who would like to be better informed about their works. For instance, one Alchemist will say that he only seizes upon one thing, whereas the second might claim that two are necessary for him, but another will say three. They are all correct—even though they may seem to contradict one another.¹³⁸

In other words, no modern hermetic *artifex*, at least none worth his hermetic salt, will ever admit to being a modern neo-Alchemist-Artist; he might, however, admit to being a *Marchand du Sel*. Since we can never properly expect the Alchemist-Artists to confess to their necessarily covert hermetic endeavors, but if we do believe we have indeed found one still

lurking inside his vocational closet, even posthumously, then we must set methodically about to unmask him. But this revelation will obviously be done quite against his will. As experience shows, the only way to reveal the true nature of the suspected Alchemist is by a painstaking expository analysis of certain cryptic clues he has left behind, perhaps largely inadvertently, throughout his Great Works. Unquestionably, Duchamp's practice, whenever a too pointed question was put to him, in effect was only to "s'expliquer par des termes métaphoriques, par des équivoques, des énigmes," just as Pernety said he ought to do.

As we know, Duchamp's most explicit rebuttal of his suspected dabbings with Alchemy was made in 1959, and it has since been taken by Marcel Duchamp's defense counsel to invalidate outright this prosecutor's contention that this artist *did* know, did even *consciously* employ alchemical subject matter. So questioned by Robert Lebel, his quick riposte was, "Si j'ai fait de l'alchimie, c'est de la seule façon qui soit de nos jours admissible, c'est-à-dire sans le savoir." We instead assume that this statement from Duchamp should be, was really meant to be, read according to a traditional system that only speaks to the uninitiated, quite specifically, "par des équivoques." In this case, then a new version in English might now properly be understood, as supported by our preceding findings, as follows: "If I did (indeed) do some alchemy, then that was done in the only way that alchemy may be allowed in our times: that means, without its becoming known." Duchamp's *échappatoires* usually worked—at least until now.

Once plausibly unmasked as the Alchemist of the Avant-Garde, we may now in turn proceed to reveal the essentially esoteric underpinnings of Duchamp's much discussed, truly artful manipulations of Chance and the Fourth Dimension.

the esoteric fourth dimension and laws of chance, 1895–1923

Whereas they are always generally hermetic in character—meaning both figuratively and literally closed to the uninitiated—not all of Marcel Duchamp’s esoteric pursuits turn out to have been always strictly, narrowly, alchemical in nature. Our targeted artist’s esoteric interests were certainly much broader, far more eclectic than just that. Alchemy is but one branch, although perhaps the most extensively illustrated, growing from an ancient and diversely limbed philosophical tree called the Esoteric Tradition. But it is also essential to understand that, as revived in France during Duchamp’s youth, particularly it was *l’Alchimie* that itself acquired and organically assimilated seemingly incompatible elements of (to paraphrase William Camfield) “the Cabala, pre-Freudian psychology, Tarot cards, and all the gods of [traditional cabalistic] structural linguistics, [preceding] Ferdinand de Saussure to the present.” This point about a new kind of occultist syncretism characterizing the strictly modernist neo-Alchemy widely discussed during the Symbolist period is easily demonstrated by reference to the most representative publications of the era in France.

One of these is François Jollivet-Castelot’s *Comment on devient Alchimiste: Traité d’Hermétisme et d’Art Spagyrique basé sur les Clefs du Tarot* (1897), where we find, for instance, a lengthy discussion about “Correspondences between Alchemy and the Kabbala,” likewise another on “The Alchemical Tarot Deck,” including, just as one should expect, a strictly hermetic interpretation of “le Pendu” as a symbolic figure standing for (à la Duchamp?) “Le Vitriol: Dissolution des Métaux.”¹ But, since art historians apparently won’t deign to read such low-life or intellectually suspect esoterica, even though

they constitute essential primary documents of the period, how then would they know whether Duchamp's thought patterns resemble this proto-postmodernist "hermeneutic babble"? Since they won't read them, then I shall have to quote them at length. I do so now with specific reference to three concepts that the designated experts do recognize to have represented central theoretical concerns of Marcel Duchamp: Geometry, with a complementary expression in the Fourth Dimension,² and also the Laws of Chance. As will be revealed here in detail for the first time, these acknowledged pursuits were ideologically linked in Duchamp's esoteric practice.

Can a case be now made that this Fourth Dimension, originally derived from non-Euclidean geometry, was consistently, but mostly implicitly, recognized by avant-garde artists—and specifically at the time when Duchamp was himself vigorously pursuing researches along these same marginally mathematical lines—as yet another functional component of the Esoteric Tradition? Moreover, can even a case be now made that this generally esoteric kind of Fourth Dimension often recognized by modernist artists practicing non-Euclidean geometry had its useful applications or explanations in *la Chimie*, which in their practice really meant Alchemy? First, however, we must make brief mention of what is actually known about the functional role of geometry, perspective, and optics within the traditional premodernist pursuits of Alchemy.³

The visual appearance of what has been called "Alchemical Geometry," as it was often depicted in published texts from the Renaissance and Baroque periods, was generally either diagrammatic or semidiagrammatic. In either case, these schemes illustrated three fundamental aspects of the traditional pursuits of the Alchemist: 1. *Pragmatic* (mechanical problem solving), 2. *Conceptual* (sequential logic), 3. *Spiritual* (the pursuit of Ideal form). The strictly diagrammatic, or nonillusionistic, kind of alchemical figuration is also found throughout all kinds of publications belonging to the Esoteric Tradition. Employing a passive use of geometry, a kind of computational process recorded after the event, typically the notational means are regular geometric forms—circle, square, and triangle—and these diagrammatic elements often generationally multiply and accumulate, culminating in tabulated formats (see fig. 24) or, perhaps more pleasurably, complicated circle-based schemata (see fig. 6). These rudimentary geometric forms were historically the first types to appear; more illusionistic approaches to alchemical imagery arose during the Renaissance, along with that age's greatest art-historical contribution, the technique of geometric perspective.⁴

The more illusionistic kind of alchemical illustration also typically reveals a more active, or operational and narrational, aspect of the *Opus Magnum*. We have, for instance, the famous picture (see fig. 15) of the Alchemist projecting his two-dimensional geometrical figure upon a three-dimensional wall, all in order to draw down the powers from yet another

higher (or figurative “fourth”) dimension. Historically defined, this pictorial development happens about the time of Paracelsus’s pharmaceutical research into iatrochemistry, an attempt to adapt alchemy to medicine, also marking the entry of *geometria* and *ratio* into already established pursuits of the *elixir vitae* or universal *panacea*. But premonitions of the unquestionable usefulness to Alchemy of Geometry—itself the Science of Ratios, even in the expression of Cosmic Harmony—were already ancient.

At least since Plato, it was a given that all Ideal structures were geometric in condition. Pythagoreans added to that essentially metaphysical grasp of geometry a mystical notion of proportional, musical ratios; we have just quoted Norton and Maier addressing the strictly alchemical applications of these ideas. Besides being made audible to the initiated, those harmonic proportions were specifically thought to be derived from the motions of the planets, thus furnishing the otherworldly “Music of the Spheres.” As mainly due to Plotinus and other influential Neoplatonic thinkers, medieval natural philosophy embraced the concept of Nature as a figurative mirror of the Ideal World (*Eidos*) preexisting in the Divine Mind (*Logos*). More particularly, Boethius translated ancient Pythagorean ideas about mystical geometry into a rigid system of musical aesthetics. During the sixteenth century, John Dee, a noted Elizabethan occultist, compared the construction of the light rays in the outer universe to chords drawn from a lyre, and the identification between light and sound—a “synesthesia” *avant la lettre*—was to become an important recurring theme in the natural philosophy of the seventeenth century.⁵

During the Renaissance, just as the more normative Natural Philosophers were devising better ways to measure things on this earth, contemporary Occultists were demanding better means to measure the sizes of unattainable astral bodies and ways to compute the distances of stars—all in order to draw down the astral powers and then to determine their occult effects on the earth and upon earthlings. Reiterating points made in the thirteenth century by Bacon and Grosseteste, John Dee considered that certain species are transmitted into earthly matter through light rays, powers verbally pictured by him as visual cones emanating from the stars, brightest in the heavens and gradually darkening as they figuratively descend upon earth. Dee thereby visualized a pursuit also of interest to contemporary Alchemists, who were summoning species from the stars into their *prima materia*, thus transmuting substances from their primitive lower states to potentially higher forms (see fig. 17). The key pictorial motif was a visual cone. As used by the Occultists, it was usually pictured as a cone of light representing Enlightenment. But as the basic format of what we now call “geometric perspective,” the visual cone was first published by L. B. Alberti (*De pictura*, 1430), who then called the ancient device “lines of sight” (*raggi visive*).⁶

The conclusion of Urszula Szulakowska (with which I concur) was that Dee and his occultist contemporaries found a way during the Renaissance of

“using perspectival optics first in magic, then in astrology, and finally in alchemy.” She also points out that “Dee eulogizes architecture and perspectival geometry as the essence of the arts and sciences, providing a way of uniting the spiritual and material worlds.” A full-blown depiction of the now traditional Albertian one-point perspective scheme adapted to a newer but wholly hermetic endeavor, composed architecturally and even including the figurative “light at the end of the tunnel,” is depicted in Heinrich Khunrath’s *Amphitheatrum Sapientiae Aeternae* (1609), showing “The Portal to the Amphitheater of Eternal Wisdom” (see fig. 30). In short, what we may call “esoteric sight” has long since proven itself sensitive to the latest developments in *perspectiva*, here broadly meaning contemporary artistic techniques for illusionistically rendering contemporary notions about the significant qualities of light and space, some of which may often remain wholly *occulta* to those not yet initiated into the Mysteries.

So, in brief (but with much more eventually following here), what did the strictly modern, or pseudoscientific, Alchemist think about Geometry? Among other topics, Jollivet-Castelot felt that it was essential for the Alchemist to learn about “la Géométrie Kabbalistique,” itself representative of a highly desirable “logique rigoureusement mathématique.” For this author, a proud *néo-Alchimiste*, that was the best way to pursue, then “scientifically” to demonstrate, the basic goal of all such *Science Occulte*, “the Unity of Everything [*l’Unité du Tout*], of Matter itself, which indivisibility is ceaselessly proven by means of its analogies.” In the more specific, or practical application, modern alchemical geometry investigates just how, in an almost Cubist fashion,

All atoms are arranged according to geometric forms, no matter whether they constitute a body or a particular element. It is by no means a superficial thing to assert that, figuratively speaking, molecular or atomic edifices do exist. . . . Accordingly, molecular transmutation is produced in Space. There really are specific structures made by the uniting of atoms, grouping together in order to produce molecules. These structures possess their very own kind of architecture, and these architectural forms vary enormously. As we still are not familiar with some of the forms already proven to exist by mathematicians, we must wonder then just how many more are there of these of which we remain as yet ignorant! . . . It is the phenomenon of molecular and atomic mutations which engenders the various dynamo-chemical architectures.

According to Jollivet-Castelot, the particular branches of descriptive *dynamochimique* hermetic research include *l’isométrie*, *l’allotropie*, *la polymérie*, *la stéréochimie*, *la dynamochimie*, all showing the new alchemical Geometry to be principally a spatial investigation: “Geometrical figures, more or less stable structures, are, therefore, formed in space by atoms, and these geometrical figures are arranged according to their particular architectural principles,”

which in appearance may in turn be called *tétraédrique*, *polygonale*, *triangulaire*, *circulaire*, and so on.⁷

Duchamp did in fact write in some detail about perspective in his voluminous Notes dealing with his *Large Glass*, a project which we now must already recognize to be, in some large measure, alchemical in theme and conception. In these Notes, however, and as one might now suspect, the modernist artist's perspectival interests were still to remain largely subordinated to his overriding hermetic narrative interests.⁸ Nonetheless, perspective does become the central topic in yet another group of Notes, only uncovered by the artist in 1964.

Evidently closely associated with the *Large Glass* and its satellite projects, these Notes were published in 1966, and this notational grouping is now known as either *The White Box* or as *À l'infinif*.⁹ From a casual perusal of these two groups of separately published Notes dealing with perspective, the average reader—especially including the average academically trained painter—would probably quickly conclude that it is difficult indeed to arrive at any notion of just *what* this artist was describing. One perception does however clearly emerge: for Duchamp, the function and potential meaning of “perspective” is most assuredly not anything to be narrowly related to that classic kind of spatial illusionism about which Renaissance artists and theorists, most notably Leon Battista Alberti and Leonardo da Vinci, had written.¹⁰ To the contrary, clearly subordinated to essentially symbolic and simultaneously nonrepresentational concerns, Duchampian perspective schemes represent a distinctly modernist twisting of traditional Renaissance practices.

One broadly modernist aspect of nearly all pre-World War I writings about the Fourth Dimension involves a constant leitmotif, a psychological factor; this is the one lamenting the inadequacy of present-day language to deal experientially with the new, twentieth-century realities, among which were included perceptions of certain higher dimensions. Some of the general character of early speculations along these lines, which even questioned the traditional verities of time and space, is found in writings published in 1913 by one of the few mathematicians ever mentioned (but even then only briefly) by Duchamp, Henri Poincaré.

According to this authority, in our contemporary and already Cubist world, “the differential equations of dynamics are characterized by varying transformations, so we must admit that all bodies become deformed, and that a sphere, for example, is transformed into an ellipsoid in which the minor axis is parallel to the translation of the axes. Time itself must be profoundly modified.” This disturbing perception leads Poincaré to a further conclusion:

Everything happens as if Time itself represented a fourth dimension of space; it is as if fourth-dimensional space—resulting from the combination

of ordinary Space and of Time—could itself rotate [*tourner*], not only around an axis of ordinary space, and in such a way that Time would not become altered, but also around any axis whatsoever. . . . But I do not insist on these [technical] points. The essential thing is to observe that, according to the new conception, Space and Time are no longer two entirely distinct entities which can be considered separately, but are instead [now become] two parts of the same whole, two parts which are so closely knit together that they can no longer be easily separated.¹¹

As becomes apparent from a quick perusal of Duchamp's nearly contemporary, but considerably more hermetic memoranda, the artist's superinscribed numbers—², ³, ⁴—refer to, respectively, the symbolically ascending “worlds” of two-, three-, and four-dimensionality. Accordingly, in the *À l'infinif* Notes we see Duchamp randomly speculating around 1914 on such mostly incomprehensible esoterica as the following:

Pseudo-sphere (Projections from the center) Resemblance—between a perspective view and a circle—the vanishing point and the center—to what in a perspective view would the circle itself correspond? (Is this axis² a compass or a 2-dimensional water gauge ???) Gravity and center of gravity make for horizontal and vertical in space³ In a plane²—the vanishing point corresponds to the center of gravity, all these parallel lines meeting at the vanishing point, just as the verticals all run toward the center of gravity. The object³ is seen circum-hyper-hypo-embraced (as if grasped with the hand, and not seen with the eyes). The perceived object is no longer the point, as to the ordinary sense of touch, but rather a sort of tactile expansible sphere assuming all 3-dim'l [dimensional] shapes. Multiplicity to infinity of the virtual images of the 3-dim'l object. These images being the smallest to infinity and the largest to infinity. Infinite-finite, movement-repose [:] conditions of n-dim'l continuum. At the limit the shape of the body O is the resultant of the 2 forces (attraction in space and distraction in the continuum). Graphically, this force of distraction is represented by the threads of contact. Physically—the eye is the sense of perspective. In this, perspective resembles color which, like it, cannot be tested by touch. Gravity is not controlled physically in us by one of the five ordinary senses. We always reduce a gravity experience to an auto-cognizance, real or imagined, registered inside us in the region of the stomach.

Analogies between Perspectives³ and⁴ The vanishing point of lines corresponds to the vanishing line of planes² in a perspective⁴ On the vanishing line in perspective³ there are several vanishing points (meeting of different groups of horizontal parallels). By analogy, there will be several vanishing lines all belonging to the same vanishing plane, and becoming the intersecting lines of the different groups of parallel horizontal planes. Construction of a 4-dim'l eye. From—: A circle (when seen by a 3-dim'l eye moving above and below until the visual ray falls

in the plane which contains the circle) undergoes many changes in shape conventionally determined by the laws of linear perspective. To—: (For the 3-dim'l eye, a sphere remains always the same, whatever the point of sight.) But a sphere (for the 4-dim'l perception moving in a 4-dim'l space, until the rays become visual rays for the ordinary 3-dim'l eye) undergoes many changes in shape, from 3-dim'l sphere, gradually decreasing in volume, without decreasing in radius, to simple plane circle. Elemental parallelism: repetition of a line equivalent to an elemental line (in the sense of similar at any point) in order to generate the surface. Same parallelism when passing from plane to volume: sort of parallel multiplication of the n-dim'l continuum, to form the $n + 1$ dim'l continuum. The process by parallelism is a posteriori. Indeed: knowing the 3-dim'l world, we have, starting from the point, drawn the line by means of elemental parallelism; from the line, by means of elemental parallelism, we have constructed the plane, and thus from the plane to the volume. But this operation already assumed the knowledge or intuition of the 3-dim'l world. Therefore: Will the passage from volume to 4-dim'l figure be produced through parallelism? Yes. But this elemental parallelism, being a geometric process, requires an intuitive knowledge of the 4-dim'l continuum. Virtuality as 4th dimension. Not Reality in its sensorial appearance, but the virtual representation of a volume (analogous to the reflection in a mirror).¹²

If attentive readers now find themselves completely baffled by all this, they need not wonder why. To the contrary, the perspective drawings included in the *Green Box* do clearly deal, in strictly visual terms, with something structurally analogous to classical, spatially illusionistic, linear perspective constructions (see MD-82). On the other hand, those Notes dealing with perspective, especially those belonging to the *À l'infinif* series, really seem to deal with the esoteric mechanics of certain worlds metaphorically leading upwards towards a perception of the elusive Fourth Dimension. In short, and as before, one finds an apparently conflictive relationship between word and actual image. For this reason, Duchamp's spatial ruminations are not likely make any sense to any artist working today, even the most avant-garde kind.

Although most of Duchamp's more developed perspectival drawings (see again MD-82) would have proven themselves reasonably intelligible to any draftsman familiar with traditional illusionistic formats derived from Renaissance *costruzione leggitimate*, the textual ramblings belonging to the 1934 and 1966 publications will, similarly, make no sense whatsoever to any modern historian of fifteenth- and sixteenth-century perspective systems. In the linguistic sense, the Latin root of the visual procedure is *perspicere*, meaning "to look at closely," "to examine or scrutinize," especially with "perspicacious vision." As we now know additionally, those Renaissance spatial illusions did in fact often include some traces of symbolic intentions.¹³ Likewise, but with

wholly different purposes in mind, Duchamp's Notes appear to betray an overriding symbolic intention.

One of the symbolic objectives pursued by Duchamp was apparently the *coincidencia oppositorum* so beloved of the Hermeticists. Accordingly, in Note 8, Duchamp even employed the French word *coincidence*, in reference to a certain "Ministère ou Régime de la Coïncidences." As one additionally reads in his Note 32, "Linear perspective is a good means of representing equalities in diverse ways; i. e., the equivalent, the homothetic similar, and the equal blend together in perspectival symmetry." As Duchamp informed Pierre Cabanne in 1966, his interest in perspective did indeed embrace it in both its *normal* (or Renaissance) and also in its *esoteric* (or strictly modernist) applications:

Perspective was very important. The *Large Glass* constitutes [in part] a rehabilitation of perspective. . . . For me, perspective becomes absolutely scientific [for being] based on calculations and on dimensions [and] what we were interested in at that time was the Fourth Dimension. In the *Green Box* there are heaps of *Notes* on the Fourth Dimension. . . . Although I almost never inserted any [advanced mathematical] calculations into the *Large Glass*, I [instead] simply conceived of the idea of a projection, one of an invisible Fourth Dimension, which is something you could not see with your eyes. Since I found that one could make a cast-shadow [*l'ombre portée*] from a three-dimensional object, anything whatsoever—just as the projection of the Sun upon the earth makes [shadows of] two dimensions—I thought that, by a simple intellectual analogy, the Fourth Dimension could [similarly] project [down on earth] an object of three dimensions. Or, to put it another way, any three-dimensional object which we perceive dispassionately becomes a projection of something fourth-dimensional, [so becoming] something we are not familiar with. It proved to be a bit of a fallacy, but still it was possible. The *Bride in the Large Glass* was based on this [concept], as if she were the projection of a fourth-dimensional object.¹⁴

In one of the Notes belonging to *À l'infinitif* we find an unusual instruction under the general heading of "Perspective." Duchamp tells himself to "See the catalogue of the Bibliothèque Ste. Geneviève—the whole section on perspective [and especially] *Nicéron* (Father Franciscus, the Jesuit), [for his book called] *Thaumaturgus Opticus*."¹⁵ It is interesting to observe how this manual, first published in 1646, does not really deal with perspective as such; instead, its subject matter represents Renaissance perspective's distorted, or "mirrorial," counterpart: *anamorphoses*.¹⁶ To the contrary of Albertian systems of centralized perspective seeking to establish coherent, objective relationships between the viewer and the images represented by the painter, anamorphic perspective subjectively derationalizes spatial relationships. In a treatise published in 1584, the *Trattato dell'arte della pittura*, G. P. Lomazzo

neatly summed up the rules of the anamorphic game as embracing an aberrant “method for making an inverted perspective that only looks correct when it is observed from a single peephole.”¹⁷

The very name applied to this “again-shaped” imagery—from the Greek: *ana* (again) + *morphe* (form)—indicates that it is the spectator who must play the active perceptual role in an interactive process of viewing and reforming. This was, of course, a symbiotic, viewer-vs.- image activity that we know Duchamp promoted. And just what is a *Thaumaturgus Opticus*? Literally, the term means a “Wonder-Working, Optical Magician.” In working with his fourth-dimensional esoterica, Marcel himself became yet another “optical magician.” As seems unnoticed by Duchamp scholars, the term *thaumaturge* was often used by modern French Occultists and thus, as understood by Duchamp, the word potentially carried both generally esoteric as well as specifically alchemical applications. For instance, according to François Jollivet-Castelot, “*Thaumaturge*: this means the one who only operates upon Nature and not at all upon humanity . . . it means concentration of divine force—the point—outside of its multiple realizations—the circles.”¹⁸

In any event, Duchamp’s thaumaturgic Note is largely unique for it actually documents the fact of a certain book, Niceron’s anamorphic treatise, being physically handled by Marcel Duchamp during his tenure as a librarian from 1913 to 1915. It additionally serves to document the fact (versus the logical presumption) of Duchamp’s serious examination of various incunabula and old esoteric publications kept in a library filled with historical documents specifically pertaining to the Esoteric Tradition (for a number of other “magical” books contained in the same Parisian library, see works marked with # in the bibliography).

It is a fact that, after 1913, Marcel Duchamp rejected nearly outright the traditional concept of the opaque, stretched canvas held upright in an easel (for an exception, see fig. 13: *Tu m’ . . .* [1918], discussed further in this chapter). Instead, Duchamp began to deal with a new (or very old) idea which would determine the very structure of the thematically complex *Large Glass* he began work on in 1915. As it now stands, the format of the *Large Glass* (fig. 1) might suggest that one of its intentions was to serve as a literal reconstruction of what Leonardo had called a “pariete di vetro” (wall of glass). The representational metaphor, like nearly everything else concerned with perspective, was first stated in Alberti’s *De Pictura* (1435): “Studious painters should only seek to present the forms of things seen on this picture-plane as if it were made of transparent glass.”¹⁹ In 1913, in his Note 136, Duchamp speculated about his own vertically ascending glass wall, a “shop-window” (*devanture*) hiding “the coitus,” or alchemical Wedding, which we have shown to be central to the hermetic scenario for his *Large Glass*. By then he had already intended:

to submit to the interrogation of shop-windows, to the demands of the shop-window. The *devanture* is proof of the existence of the outside world. . . . From the inevitable response to shop-windows [arises my choice] of hiding the coitus [*le coït*] through a sheet of glass with one or many objects taken from the *devanture*. The penalty involves cutting the sheet of glass and in biting your thumbs once [alchemical] possession has been consummated.

According to the perspective writers of the Renaissance, who entertained no such hermetic-erotic fantasies, their picture plane was additionally to become an intersection, that is a grid with equal squares and looking like a wide apertural screen woven from the finest of threads. Another idea apparently initiated by Alberti was that a suitable model for the goal of the painter, the agent of illusionism, should be the mirror image. The notion quickly became a commonplace in art theory and was, for instance, repeated in the seventeenth century by a Frenchman, Abraham Bosse:

The flat surface through which it is understood that the visual rays pass is called by some *la transparence*, by others *le verre*, or *la section*, and even others give it some other name. . . . Therefore, when it is necessary to consider just what the representation of the same object is, one can imagine this representation to be a glass panel, one which is thin, flat and transparent [*table de verre, mince, plate et transparente*] by means of which one imagines that the eye sees the subject [to be painted].²⁰

The transition in Duchamp's mind was between a statement like Bosse's, representing standard canons of Renaissance spatial illusionism, and what was to come much later, the Fourth Dimension. For Duchamp, the latter represented a step leading beyond mundane perspective practice, such as is briefly exemplified in his Note 6: "Use transparent glass and a mirror for fourth-dimensional perspective." The idea was treated in greater detail in his Note 5:

The plane of a mirror is a convenient way of giving the idea of three-dimensional space. It is [however] at this plane that three-dimensional infinity stops (there is no contradiction in putting it this way, since it is only to familiarize the mind with the ideal representation of this fourth-dimensional continuum). Incorrectly speaking, the line which seems to stop at the plane of a mirror should simply cross *through* and then continue to infinity in its own three-dimensional continuum. It would not enter into the fourth-dimensional continuum, which should contain the line without being intersected by it. . . . Comparison by analogy: Given a cube [and] its reflection in a mirror, one could say that a straight line perpendicular to the plane of the mirror will not intersect (nor hide) the image of the cube [and this is] because the eye goes around the line without thickness. This line will stop at the plane of the

mirror. To the contrary, a plane or any [other] opaque surface touching the mirror will cut, or hide from the eye of the viewer, part of, or even the whole image of the cube [seen] in the mirror. The fourth-dimensional continuum is [therefore] essentially the mirror of the three-dimensional continuum.

Even the best informed students of that kind of fourth-dimensional geometry, now recognized to have been actively pursued since around 1910 by Duchamp and his avant-garde contemporaries, usually fail to emphasize a significant issue. In short, this mirror imagery, particularly the kind pointing to the putative existence of certain kinds of higher realities, was already commonly used by the esoteric writers read by the Symbolist poets and artists. To repeat a point made before, for occultist authors flourishing during Duchamp's youth, the mirror image was a tangible sign of a superior, but largely invisible world paralleling the real world of discredited materialism. The inferior, materialist world, "reflects in negative"—as a "shadow," or in the form of a "mold"—that superior, literally *occulta* world uniquely perceived by thoroughly initiated occultist sensibilities. For this conclusion we have found tangible support in Papus's comprehensive and often reprinted *Traité Élémentaire de Science Occulte* (1897), where we may again read how, "In Nature there equally exists, that is according to Occultism, a completely invisible counterpart [i.e., 'the astral plane'], and this is encountered alongside those objects and forces which strike upon our material senses [in the physical world]."²¹ Its nature was specifically labelled by Papus: "Le plan astral s'y manifeste 'en négatif'; il projette une ombre sur le plan physique; c'est le moulage de cette image." Those who have intensely studied Duchamp's Notes will now recognize that he had often employed exactly the same terminology as did Papus.

But just how did one recognize this "completely invisible counterpart"? It's easy; according to Papus, "this astral plane can be thought of as a mirror-image of the divine world, one reproducing a negative image of the principle ideas, which are themselves the origin of all future physical forces." And then there is the matter of yet another motif common to Duchamp's later Notes, namely those mysterious "cast-shadows," *les ombres portées*. In short, once again the shadowy idea, as a once commonplace motif, seems to have been initially introduced to Marcel Duchamp by the likes of Papus. According to that author, "Occultism also teaches that, while everything, or all beings, do project a shadow upon the strictly physical plane, likewise everything [in the physical world] must project a reflection on to the astral plane—*de même tout projette un reflet sur le plan astral*." We may also recall that Duchamp had stated to Cabanne that he arrived at his fourth-dimension wisdom "by a simple intellectual ANALOGY." Papus likewise gives us the most likely source for that kind of intuitional brainstorming *par analogie*:

The principal methodology belonging to Occult Science rests upon Analogy. We Occultists know that there exists a constant connection between the Sign and the Idea represented by it, and that means that there exists a constant connection between the Visible and the Invisible.²²

Besides Father Franciscus Nicéron (S. J.), the only other author interested in geometrical-spatial subjects ever cited by name and opus in all the Notes retained by Duchamp was Lieutenant-Colonel Esprit Pascal Jouffret, a former French artillery expert (also proudly a “Officier de la Legion d’honneur”).²³ More important, Jouffret was the author of a certain book carefully noted down by Duchamp, in his Note 3, as follows: “voir: Jouffret Géom. à 4 dim. page 186. 3 dernières lignes.” The book in question, first published in 1903, is the *Traité élémentaire de Géométrie à Quatre Dimensions et Introduction à la Géométrie à N-dimensions*. Obviously, this is a book that must tell us a great deal about Duchamp’s essentially pseudoscientific understanding of the mathematics and perhaps even the latent mystical metaphysical purposes propelling his anomalous Fourth Dimension. Furthermore, given the paucity of bibliographical clues left behind by our elusive artist, this elementary treatise merits a detailed examination, particularly one dealing with its potentially esoteric applications.

Just as Duchamp read, Jouffret, the gunner-turned-mathematician, rightly observes in his “Avant-Propos” (with frequent typographical emphases) that:

Doubtlessly, the fourth-dimensional world should only exist [ideally] in the geometric sense. Still, nothing impedes supposing that it may also have a concrete existence. . . . The Universe which we inhabit, and also another which we suspect to lie alongside it have both been projected into what we call SPACE. This—*l’espace*—is A THING and it is, moreover, what we shall consider to be something like the container for all other things. It is a thing which we perceive to be Infinite for it lies before us on all sides and wherever we place our eyes. To this, *l’espace*, we attribute THREE dimensions, without however knowing at all how or why this particular number, three, had become imposed upon us. As it must appear, this number, three, has no logical necessity; before the formulation of any kind of an analytical system, one could just as well have replaced it with any other WHOLE number. . . . This formulation is known as THE AXIOM OF THREE DIMENSIONS. . . . The conception we now have of space is based upon an image which is [initially] formed upon our retinas, and such a retinal image has TWO DIMENSIONS. Our [subsequent] notions of a third dimension mainly result from certain physical efforts of accommodation and convergence which we make with our eyes. . . . The possibility of another state of things [i.e., fourth-dimensionality] arises at such a time when, instead of being always tied to one another, the two indicators making up the [spatial] ensemble, and as linked together with the third variable, might then all

become independent of one another. At that point, without hesitation, we can attribute FOUR dimensions to visual space. . . .

It is presently found that the three variables [of dimensionality] are not sufficient for our Analysis. This has happened because this Analysis, in a manner ever more powerful and demanding, has pursued its research further into THE WORLD OF SMALL DIMENSIONS that was formerly known to our ancestors. The fourth-dimensional geometrical envisions space as being divided into AN INFINITY OF INFINITELY TINY SLICES [*infinité des tranches infiniment minces*]. Called by him PLANES [*plans*], these exist in an infinity of INFINITELY NARROW BANDS [*bandes*] and these are what he calls STRAIGHT LINES [*droits*]. These become changed into an infinity of INFINITELY SHORT SEGMENTS, and these are what he calls POINTS [*points*]. Sometimes what he calls “planes,” “straight lines,” and “points” are, rather than being the slices, bands and segments themselves, instead SEPARATIONS, and these are divested of any traces of the thickness and reality which the mind wishes to see between them. . . .

Once placed in the midst of an infinity of other spaces, AN INFINITELY THIN SLICE will form so many parallel slices, and all these co-exist within a slice extended into FOUR dimensions. . . . We shall call EXTENDED [*étendue*] the nature of the ensemble within which these spaces will form themselves in an infinite number. . . . There is no obstacle to a further consideration of Extension as being, in turn, aligned with a field of five dimensions, and so on and so forth, indefinitely. This perception represents THE NOTION OF SUCCESSIVE FIELDS. . . . Under all conditions, the FOURTH dimension represents a void, or infinitely little. . . . Space is no longer viewed as an absolute thing, is not perceived as an unique and obligatory entity; instead, it becomes a simple unit in the midst of an infinity of other units, and so it shall be called “OUR SPACE.” We do so in order to specify which one of these units is the one uniquely claimed by us. . . . It would seem in this case that this is a subject which should only be of interest to the geometrician—or to a metaphysician.²⁴

At this point in his extraterrestrial arguments, and under the heading of “La non-perception,” Jouffret chooses to quote directly from another, pioneering and wholly pseudoscientific, study on fourth dimensionality, Charles H. Hinton’s *A New Era in Thought* (1888). Jouffret leaves Hinton’s text in the original English because, as he explains, this is “trop difficile à traduire” into French. According to Hinton (as quoted by Jouffret),

There is really no more difficulty in conceiving four-dimensional shapes, when we go about it in the right way, than in conceiving the idea of solid shapes, nor is there any mystery at all about it. When this faculty is acquired, or rather when it is brought into consciousness—for it [already] exists in everyone in imperfect form—a new horizon opens. The

mind acquires a development of power, and in this use of ampler space as a mode of thought, a path is opened. . . . Our perception is subject to the condition of being in space; but space is not limited as we at first think.²⁵

To one familiar with Hinton's writings, it is apparent that he was just another *fin de siècle* Occultist. This is rather obvious from another comment made in his *A New Era of Thought*:

The more eager the reader is for personal and spiritual truth, the more eagerly I urge him to take up the practical [fourth-dimensional] work, for the true good comes to those who, aspiring greatly, still submit their aspirations to fact, and who, desiring to apprehend Spirit, still are willing to manipulate [mere] matter. . . . In pursuing it, the mind passes from one kind of intuition to higher one, and with that transition the horizon of thought is altered. It becomes clear that there is a physical existence transcending the ordinary physical existence; and one becomes inclined to think that the right direction to look is, not away from matter to spiritual existence, but towards the discovery of conceptions of Higher Matter. . . . There is a Higher Being than ours. What our relation to it is, we cannot tell, for that is unlike our relation to anything we know.²⁶

In his own words, Jouffret now introduces a figurative simile, and this is what appears to account for both the subject matter and even a latent fourth-dimensional visual configuration belonging to Duchamp's *Portrait of Chess Players* (MD-57: *Portrait de Joueurs d'échecs*), with hooded eyes and bodies broken down into fractured and overlaid planes, which he completed in December 1911.²⁷ Besides treating the December 1911 painting and its six known preparatory studies as being largely fourth-dimensional in character, and specifically à la Jouffret, I am also proposing that Duchamp only came to read Jouffret's *Traité* some time after August 1910. To illustrate Duchamp's fourth-dimensional realities—and we do know that Duchamp had read this passage—Jouffret had likewise discussed chess (with similar textual emphases):

Some singular chess-players possess the unique faculty of CONDUCTING SEVERAL GAMES SIMULTANEOUSLY AND WITHOUT SEEING THEM. Without recourse to paper to make notes, the player who carries out this tour-de-force places himself in such a way that his opponents, placed in front of so many chessboards, are made invisible to him. An assistant executes upon the chessboards movements ordered by the [sightless] player, who is then verbally informed of moves executed by the other players. This is called "*Blindfold-Play*" [in English]. Philidor amazed his contemporaries by giving séances where he played as many as THREE games at once against the three most celebrated chessplayers, and some of these celebrated matches have been recorded. In our time, there have been seen performed in succession, instead of just three

games, even eight, twelve, sixteen—and, most recently, TWENTY-TWO games were so played! When, after many hours of play his games were all completed, with the majority being won by Philidor, this hero (and his title is certainly deserved) was then even in a position to repeat ALL his moves, and he named these off by the hundreds! How does such a mind operate? To this question, some answer that is just a matter of memory and method. Apparently, nearly all of them “see” a chessboard with all its pieces; this has been drawn upon their thoughts AS THOUGH UPON AN INTERNAL MIRROR, just as Hippolyte Taine puts it. They have, as it were, made a sketch of it [in their mind]. Such a faculty amazes us hugely, but we are indeed forced to allow of its existence because we know of numerous examples of this feat. . . . M. Poincaré has said, no doubt ironically, that “anyone who dedicates his existence to this activity should—PERHAPS—be able to arrive at representing the fourth dimension.”²⁸

Since we are now assured by his own admission that Duchamp, himself an avid chess player, had read this *Elementary Treatise on Fourth-Dimension Geometry*, we may assume that he took as a professional painterly challenge Jouffret’s next assertion, for which his *Portrait of Chess Players* may be believed to represent Duchamp’s timely, perhaps even fourth-dimensional, riposte. “As for us,” continues Jouffret,

we have already expressed our opinion, which is that the reader should NOT cherish any hope of neither objectifying, as did those blind-folded players with the pieces of their mental chessboards, the fourth-dimensional beings which are the objects of this study, nor should he seek to objectify the movements which we impress upon them. This hope would oppress the reader’s mind with sterile efforts to find means by which to pierce the infinitesimal *tranches* which extend between these fourth-dimensional beings and the reader. IF there really are four dimensions, then our imagination is [still] confined to the first three dimensions. There is an axiom—“EQUALLY, IN EMPIRICAL ORDER”—which in this case replaces that axiom of THE THREE DIMENSIONS that has been formulated at the beginning of our *Avant-propos*, and we shall retain for it the very same name.²⁹

What particularly concerns us in the rambling text of Jouffret’s *Traité* is the content of a specific passage in it as emphatically noted down by Duchamp: “page 186, [following!] the last three lines.” Those “last three lines,” perhaps directly bearing upon the cast-shadow pattern put into Duchamp’s *Tu m’* . . . (fig. 13), conclude a statement dealing with the intrusion of fourth-dimensional phenomena upon our imagination. Then Jouffret announces, and at the particular point on page 186 that *was* cited by Duchamp, “To this end, let us consider the horizontal shadow which attaches itself to your person when you walk beneath the Sun and which, long or short, thick

or thin, [seemingly] repeats your movements as if the shadow understood your commands, even though this is but a vain appearance.” On the one hand, this comment by Jouffret just might seem to be the shadowy answer to the problem outlined by Duchamp in his Note 3, containing his recognition that “the shadow cast by a fourth-dimensional figure in our space is a three-dimensional shadow.” On the other hand, and unnoticed by Duchamp scholars, the text immediately *following* in Jouffret’s *Traité*, namely his Chapter 9, “Applications,” appears directly to relate to Duchamp’s now revealed esoteric [al]chemical interests.

Jouffret begins his chapter dealing with esoteric chemistry, a subject mostly ignored by Duchamp scholarship, by announcing that “this will be the place to consider two categories of applications of Fourth-Dimensional Geometry, and these are those which deal with the mathematical sciences and also those which deal with the physical sciences.” As his interpretations of the physical workings of the Cosmos are of the sort that have long since been discarded by modern science, Jouffret’s notions are best dismissed as pseudoscience—really meaning pure Occultism. Jouffret had explained that what he disparagingly called the “*nouvelle Physique*” only concerns “the movements of MATERIAL ATOMS,” and to counter reigning materialist opinions, Jouffret adds another, far more esoteric factor, “a direction perpendicular to EACH OF THESE.” As earlier outlined in his “Avant-Propos,” Jouffret’s apparently wholly esoteric Cosmos is one of “multiple vibrations which are perceived with the words HEAT, LIGHT, ELECTRICITY, etc.,” all of which factors motivate, he claims, “atoms and atomic vibrations, molecules and molecular movements.” All such observations only serve to prove to Jouffret that his invisible “fourth-dimensional component only appears in the ultra-microscopic field.”³⁰

Even though most dedicated Duchamp scholars may be presumed to have at least cast a fugitive glance at Jouffret’s rather bizarre *Traité de Géométrie à Quatre Dimensions*, I doubt that most of them ever have really studied Papus’s slightly earlier, then much more widely read, *Traité Élémentaire de Science Occulte*.³¹ Regarding Jouffret’s uppercase emphasis upon “the words HEAT, LIGHT, ELECTRICITY, etc.,” they should now find most interesting the similarity of a typical passage by Papus, in this case that one dealing with “*la Chaleur, la Lumière et l’Electricité*,” representing the three phases of a most elevated [esoteric] thing, wherein Heat represents the Positive Force, Light is Equilibrium, Electricity the Negative Force; such are the [hidden] forces of our [occultist] world.”³²

Since the academic exegetes of Duchamp’s n-dimensional achievement appear not really to have bothered to read past page 186 in Jouffret’s *Traité*—notwithstanding the obvious fact that Duchamp must have—it seems worthwhile to provide for the first time a complete English translation of these equally bizarre speculations. In so doing, we quickly begin to realize that we

are really dealing with just another kind of alchemical text, different perhaps only in being modern for making constant references to the new electrical and atomic phenomena so often discussed and misunderstood during the dawning of the twentieth century. Nonetheless, it does read very much like long passages found in a certain treatise by François Jollivet-Castelot which instructed attentive young Frenchmen on “How to Become an Alchemist.” Those already familiar with the distinctive terminology of Duchamp’s Notes may now start to find their textual source in various bizarre buzzwords initially manipulated just following page 186 in Jouffret’s *Traité*. As was there stated (with frequent uppercase emphasis) by Jouffret,

We must begin by defining the two elements—MATTER and ENERGY—which form the SYSTEM OF NATURE within this singular Universe.

Material bodies scattered throughout Plane P have neither zero thickness nor are they infinitely small. . . . They have, instead, a very small, finite thickness, and this is formed by superimposed atoms or molecules. This thickness is not suspected by the Flat Men [or inhabitants of a wholly imaginary, two-dimensional “Flat Land”], for whom there is only a bed of atoms and for whom groupings of atoms constituting the molecules are all formed within Plane P. This hypothesis does not, however, deny the possibility, if one prefers, of considering some identical bodies to be like slices [*tranches*] within the three-dimensional body of our Universe. . . .

All these bodies conform to a kind of perpendicular force, of the type we call MOLECULAR FORCES, that operates at Plane P. These molecular forces operate in the reverse sense from the two opposing sides of the plane, and they thus produce either a TRACTION or a COMPRESSION. We call this the PERPENDICULAR FORCE, or FORCE C. This force does not at all hinder the movement of the bodies because it is perpendicular to all lateral movement. . . . The molecules unlock and gradually spread out further across the plane, so becoming increasingly more *indifférentes* to one another and finally finding themselves freed from obeying gravity as individuals. Then the body, grinding upon the container which encloses it, only has a tendency to seek a level which is perpendicular to gravity. It has been accordingly DILATED, then LIQUIFIED. . . . Force and gravity become negligible in the face of the effects of this repulsion.

Recourse must now be made to the use of a certain hermetically sealed enclosure in order to impede an indefinite diffusion. Flat Men say that they are dealing with *un gaz*, and they call *pression* or *tension* the results of a certain *bombardement* against the enveloping wall which is carried out by millions of molecules shot out forth in all directions from Plane P. . . . This operation is the only phenomenon captured by the senses of a Flat Man. . . . They give this operation a specific name, “HEAT,” and they only experience it through an artificial unity, “DEGREE OF TEMPERATURE.” . . . *Voilà*, the transformation of the operation into heat, which is the reverse of the preceding operations.

In the [strictly] Chemical Combinations [belonging to n-dimensional operations], a Flat Man grinds together into a fine powder some sulphur blossoms and then some iron filings. In this operation, he JUXTAPOSES elements from substances which are now more or less fastened together. He can later separate these by mechanical means; then he makes a *mélange*. . . . He then says that he has achieved a *combinaison chimique*. . . . Within the sequence of ideas, the constitution of molecules belonging to compounded bodies can be indicated by a *représentation graphique* of the molecular pile. . . . Each atom or molecule which, in order to lie UPON another atom or molecule, EXITS from Plane P during the chemical combinatory operation then leaves behind it A VACUUM.

The molecules surrounding this vacuum are precipitated into it, crash together, are pushed backward, and come together, so creating a *va-et-vient* movement which is transmitted closer and nearer, in all directions, in the form of A WAVE. This wave is like those *vagues circulaires* which spread out from the point of impact [*le point de chute*] of a stone cast into water. As they stretch out they grow in size [*s'en éloignent en grandissant*]. If this chemical reaction is sufficiently active for a succession of waves to attain certain speed limits, which are those predicted by scientists, then Flat Man perceives them in the form of light. For this reason, chemical reactions are frequently accompanied by light effects, which are their necessary condition.

These effects do not, however, entirely transpire upon Plane P. When we again consider the comparative example of a stone falling into water, we see that the surface of the water becomes covered with circular wrinkles. These deformations indicate that the compressions and dilations occurring on the circumference actually had their point of origin at the center. . . . It is the same with waves of heat and light: whereas elastic forces are transmitted closer and nearer on Plane P, molecular movements are made perpendicular to this plane. This means that THEY ARE FOLLOWING THE PATH OF THE THIRD DIMENSION. . . . To the contrary, when a *décomposition chimique* occurs, this represents the act of an atom or molecule exiting from a pile situated perpendicular to Plane P. Then the atom or molecule is being withdrawn, or ejected, from within this plane.

The distinction between one action and the other constitutes the differences between chemical *combinaisons* and *mélanges*. . . . Just as in the preceding situation, these same alternating movements take place, so producing, according to circumstances, either HEAT or heat accompanied by LIGHT. It is, furthermore, now recognized that ELECTRICITY is the principle agent of of chemical decomposition. For a [third-dimensional] person placed above Plane P, who can look down upon as it pleases [*le regarder comme il lui plaît*], the movement best explaining for him the phenomena radiating throughout the inhabitants of the plane is perhaps best called A ROTATION OF THE MOLECULAR PILE. . . . This rotational movement can produce heat and

light. . . . This movement can also produce chemical decomposition, and here is how it is done. . . . Each partial rotation becomes a kind of combination which is un-done and re-done [*se défait et se refait*].

If, due to any circumstance whatsoever—for example, the simple fact that centrifugal force may not be entirely suppressed by Pressure C, which is separating the molecules at the critical moment of their *passage* into the plane—then rotation ceases to continue. . . . One calls a NEGATIVE POLE the direction against which the somersault [*la culbute*]—and this now seems a more suitable term than *rotation*—has made the first fall [*chute*], and that opposing direction is the POSITIVE POLE. The latter, the positive pole, has fallen through the first, the negative pole. It is in this manner that the characteristic aptitude of *la électricité* to produce chemical combinations is best explained.³³

Tiresome as all the above may appear, it *had* to be quoted at length. Why? First, although Jouffret is always cited by Duchamp's acknowledged experts, one wonders if they have ever read him—and now even linguistically-challenged American academics have had the opportunity to do so. Secondly, and this represents a much more positive point, this long passage by Jouffret echoes Duchamp's Notes for the *Large Glass*, also quoted at length here in chapter 5.

My other guess is that Jouffret's *Traité* has never been seriously studied by any well-trained *physicists*, and my second assumption is that it has only been recently looked at (if at all) by *art historians*, but only those doing research on Marcel Duchamp. Had any scientists ever published a serious analysis of its contents, it would have long since been rudely dismissed by any adequately trained, scientific-minded scholar-reader as mere pseudo-science—precisely the stuff modern esotericism thrives upon. A contemporary Freudian might have ironically dubbed it mere “physics-envy.”³⁴ On the other hand, in regard to that second kind of academic grind, the art historians, the case is wholly different. Any attentive scholar-reader of Jouffret's dynamic, colorful, but essentially tedious tale of *ultra-mince* life in Flat Land must now finally recognize that Jouffret's unorthodox text represents another important published source for many specific actions, odd nomenclature, even specifically liquescent movements appearing in the Notes for Duchamp's *Large Glass*. If significant for nothing else, Jouffret's odd, probably literally esoteric *Traité* does additionally enable us to see in some detail exactly how Duchamp had made an imaginative verbal passage from the mysteries of the Fourth Dimension into the actual physical mechanics of an alchemical opus—and vice versa.

Although he was never to be cited by name in the Notes, there is another theorist of the Fourth Dimension whose publications Duchamp actually acknowledged studying during the crucial years of his intellectual breakthrough, between 1910 and 1915. This author is Gaston de Pawlowski

(1874–1933), and it is he who appears at that time to have been a major source of *divulgations* composed in French popularizing the extraterrestrial/extradimensional topic. Half a century later, speaking to Pierre Cabanne, Duchamp vaguely recalled the situation, in which he repeatedly confuses different themes belonging to writings by either Pawlowski or Jouffret:

Do you remember someone called, I think, Povolowski [*sic*: Duchamp means Pawlowski]? . . . I can't exactly recall his name. He had written some articles in some magazine [it was in *Comoedia*, and these essays had appeared there since 1908] popularizing the Fourth Dimension by explaining that there were flat beings who have only two dimensions [here Duchamp is confusing Pawlowski with Jouffret's reference to certain 'phenomena observed by Flat Men,' as just quoted], etc. It was all quite diverting. . . . In any event, at the time I tried to read things [published] by this Povolowski; he explained measurements, straight lines, curves, etc. [Jouffret's work, not Pawlowski's]. That was what was buzzing in my head while I was working, even though I almost never put any [of his] calculations into the *Large Glass*. I simply thought about the idea of a projection from an Fourth Dimension [which would be] invisible because you couldn't see with your eyes. Since I had discovered that one could make a cast shadow from a three-dimensional thing, any object whatsoever, just as projections from the Sun upon the Earth appear two-dimensional [again a reference to Jouffret's, or even Papus's writings—both as just quoted—and not at all to Pawlowski's]. I thought that, by simple intellectual analogy, that the Fourth Dimension could project an object of three dimensions. Or, to put it another way, any three-dimensional object, which we perceive dispassionately, can be a projection of something fourth-dimensional, [that is] something we are not familiar with [in our three-dimensional world].³⁵

Pawlowski's numerous short articles were eventually published as an anthology in December 1912, collectively then called *Voyage au pays de la quatrième dimension*. If one actually bothers to consult this slim volume, since reprinted,³⁶ it becomes apparent that Pawlowski, and quite to the contrary of Jouffret's intention, mainly used the idea of the Fourth Dimension as a vehicle of social commentary. Perhaps the most noteworthy factor in the *Voyage* is the unique emphasis Pawlowski gives to creative imagination and the social situation of the artist (of no apparent interest to Jouffret). This author asserts that whereas the Fourth Dimension represents a complete reality in itself, it is at the same time much too free and too intuitive an experience to be captured, à la Jouffret, by simple geometric diagrams and mere mathematical computations. Instead, claims Pawlowski, the Fourth Dimension can only be fully revealed through works of art.

Even though Pawlowski's *Voyage au pays de la quatrième dimension* is routinely cited by nearly every scholar celebrating Duchamp's ambiguous

achievement, one wonders whether any of them have really studied this text closely. Evidently not, with one notable exception.³⁷ It does, however, warrant closer inspection, and the results immediately forthcoming will reveal many unique aspects of this work that cast valuable critical light upon still mysterious areas of Duchamp's thought processes.

Pawlowski's first imaginative "Voyage," or pursuit of the Fourth Dimension, was launched in an early twentieth-century epoch that he called "Le Léviathan." This New Leviathan is treated by Pawlowski—in by then a thoroughly clichéd manner³⁸—as representing a gross magnification of everything the author detested in his own contemporary culture, particularly the determinism, materialism, and positivism characterizing late nineteenth-century physical (versus mystical metaphysical) science. As critically viewed by Pawlowski's disillusioned n-dimensional voyager, his was a blighted era in which all individual creativity became subordinated to the will of society as a whole, meaning the body of Leviathan. The fine arts suffered the most from this deplorable situation. An antiscientific bias is revealed in a second imaginary voyage into time which takes Pawlowski to "la période scientifique," beginning after the year 2000—which is, ironically for us, now our postmodernist age.

The plot of this precocious science fiction epic includes mad scientists building robots and an interesting prefiguration of current agribusiness and biogenetics industrially producing plant variations, also featuring (à la Ridley Scott's 1992 film *Blade Runner*) a revolt by the mechanical men against their creators. Since one presumes that Duchamp was not really reading this anthology for its slight narrative, then we may instead assume that he must have been captured by the author's metaphysical message. As for his larger purposes, Pawlowski states in the "Preface" to later reprintings (in 1923 and 1945) that his book represented, "from the very beginning, an attempt to evade bourgeois certitude." His intention was, therefore, "a protest of revolt against the scientific tyranny" belonging to the specific historical moment of his conception, just before the outbreak of World War I. In this temporal context of a once fashionable *Weltschmerz*, Pawlowski explains that the Fourth Dimension becomes

the necessary symbol of an unknown factor, without which the known world will not be able to exist. In our [traditional] world of three dimensions, the Fourth Dimension is that variable whose existence will become indispensable in every equation of the human spirit. Nonetheless, it vanishes upon contact with the numbers and figures by which one might attempt to give it a particular value.³⁹

Also precociously anticipating attitudes common later to the Dada artists, Pawlowski calls attention (in uppercase) to his dominating concept of "LA RECHERCHE DE L'ABSURDE." As he observes, "THE QUEST

FOR THE ABSURD posed by the [modernist] artist strangely resembles in an active mode the passive and penetrating mode of the ‘*Credo quia absurdam*’ of St. Augustine.” To cite a particularly cogent, also very traditional illustration of the kind of “absurd research” that modern artists should pursue in their quest for the fully liberated and creative spirit, Pawlowski calls our attention to “la quadrature du cercle.” This figure, the Squaring of the Circle, we have already recognized to represent a standard device in hermetic speculation and in alchemical emblematics (see fig. 15). Pawlowski states that the express purpose of this impossible exercise so beloved of the ancient Alchemists was

to humanize the artificial game of mathematics by introducing among the figures an idea of the continuity of life, an idea becoming something like a firm foundation. . . . Immediately, we discern an unknown providential factor, a certain variable, Time, and so we attribute to it the role of the Fourth Dimension [as] a symbol of this continuity of life, without which all scientific conceptions only become something like a body lacking a soul. Behind each wall which is broken through, we will find yet another wall, behind which there is eventually, of necessity, found the Fourth Dimension. By this I mean that eternal and undecipherable secret, that which permits the Squaring of the Circle, [a motif] which is still the greatest secret of our knowledge.⁴⁰

Pawlowski’s goal is, as we would by now suspect, anything but scientific and/or materialist. It is, in fact, mostly mainstream Occultism in character; as Pawlowski admits, for him the real aim is “cette recherche de l’Absolu.” In his ongoing, endlessly frustrated quest for the Great Absolute, our timely time traveler chooses also to cite another symbol “l’arbre de Science,” a certain forbidden Tree of Knowledge, “the symbol of Earthly Paradise,” once hungrily fondled by Adam in spite of a godly injunction, and so leading him directly to cause mankind’s original downfall (see MD-40, *Paradis*; fig. 3: MD-47, *Le Printemps*). But Pawlowski puts an odd spin on the familiar cautionary tale: “After Adam touched the Tree of Knowledge, God said that ‘he has become one of us for knowing of Good and Evil’—which means the pro and the con, the Androgynous Idea.” Pawlowski’s anomalous mention of “l’idée androgyne” reminds one of yet another symbol, since become familiar to us within its strictly hermetic applications by Duchamp (see MD-121, and figs. 20, 21, 22). The author then asks himself if such recognitions of the Absolute are not, after all, useless in the end. The answer is, of course not, that they are essential. Accordingly, for their realization Pawlowski instead proposes

the human super-heros, those who can imagine that even within the reality of facts there is still a latent prototype, one which inhabits the

world of ideas. These are the means by which poets and researchers are enabled to imagine the framework of the world. . . . The Idea is immutable throughout its successive incarnations, and also throughout its changes of material forms and relativities. In short, it represents what we call Life.⁴¹

Pawlowski has yet another esoteric approach to his subject: he appears to define the Fourth Dimension as yet another means to achieve the Reconciliation of the Opposites. As he proposes,

The dimensions of objects are modified by Speed, therefore additionally by Time. This last coordinate, Time, is that which must be added to the other three dimensions, and from now on we shall conceive of the universe as having four dimensions. . . . From the Fourth Dimension we are, in effect, awaiting an explanation for ALL phenomena, and also for their contraries and, additionally, for all qualities and for their contraries. In a word, we are expecting from the Fourth Dimension the TOTAL explanation of our world and its contrary world.⁴²

In his discussion of “The Abstractions of Space,” Pawlowski additionally discloses that he, just like the Alchemists, had conceived of the world as essentially representing a dynamic, continuous, and unfolding process of successive *transmutations*:

If our continuous consciousness only reveals to us just the real existence of qualities, then just why is it that our senses, which are developed according to the suggestions and needs of the mind, can not easily perceive this Fourth Dimension? And is it not for this reason that we are mortals? Why must we resort to the numerical analyses of Science, so being forced to chop up the universe into [only] three dimensions in order to render it intelligible to us? The answer to these questions is simple. For us, our world exists in a state of perpetual transformation, which also means that it is in a state of perpetual progress. Therefore, this perception of a continuous universe must be opposed to any idea of movement or of change. Our immobile consciousness participates in the universality of things, and it has, therefore, no need to resort to a fractionalization of the universe. . . . The mind which can conceive of an absolute Unity, which it arrives at by means of an admirable artifice, then creates the world in its own image—but it multiplies this image to infinity [*le multiple à l’infini*]. . . . All numbers beyond ONE represent, therefore, nothing but a mirage to the mind, but it is a useful mirage for all that. It either permits the mind to create artificial individualities or, alternatively, to distinguish only some new qualities of the eternal Unity.⁴³

The most developed statement by Pawlowski defining his unique perception of the totality of the Universe is based upon an elaborate quasi-alchemical

metaphor, and this figure reads somewhat like Jouffret's thoroughly esoteric discussions of the "combinaisons et décompositions chimiques." Similarly, Pawlowski's basic idea deals in some detail with "The Transmutation of the Atoms of Time." He then proceeds to admit that here he is employing the kind of imagery "once believed exclusive to Alchemy." His explanation contextually reads as follows, including his frequent upper-case emphasis:

Therefore, it was by means of displacements in Space that the existence of the Land of the Fourth Dimension was first revealed to me. And, once again, I do not really know how to explain these displacements by just building upon current language, for that is one only constructed in three dimensions. I am, therefore, and despite my misgivings, forced to resort to crude imagery; I must revert to ancient means of expression, to those once believed exclusive to Alchemy. I will employ these [alchemical] terms in order to describe a fact which is, nevertheless, quite simple. It will, nonetheless, not fail to amaze the reader, especially one scarcely familiar with the UNITY of a point of view which characterizes the Fourth Dimension. In same way that one resorts today to atomic theory in order to provide an adequate image of chemical combinations, so too must I resort to an analogous [alchemical] hypothesis in order to explain, however crudely, the nature of displacements effected within the Land of the Fourth Dimension. Here follows this imperfect [alchemical] explanation.

Whereas atoms forming any body are pushed away in three-dimensional displacement, and are replaced by other atoms compounding another body, just like a boat displacing sea-water, displacement in the Land of the Fourth Dimension is instead achieved by means of what used to be called a TRANSMUTATION. In the World of the Fourth Dimension, which is a CONTINUOUS world, there can be produced no movement—meaning none in the common sense of the word as it is currently applied to the mobile world of three dimensions. In the World of the Fourth Dimension, therefore, displacement works through an exchange of qualities between neighboring atoms [*échange de qualités entre atomes voisins*]. . . . It must be understood that this is just an image, a most primitive one, which is designed to explain in three-dimensional language a process of displacement occurring in the continuous fourth-dimensional world.

In this fourth-dimensional world, displacement will however have nothing whatsoever of a Euclidean nature. Indeed, as it must be remarked, such [displaced] atoms only provide a convenient hypothesis. Such atoms do not exist in reality; they only represent different qualities belonging to the same physical continuum. The atom is a conception belonging to the kind of mind which isolates matter, and all of its attributes and all of its qualities. This mind conceives of the atom in its own image. Therefore, it could also make from this mental image a

complete and unique, fully fourth-dimensional world. This fourth-dimensional world is an illusion of a sense perception which reflects, *ad infinitum*—as in multiple mirrors—this single atom according to various concepts belonging to our incomplete, three-dimensional world.

Once one is transported to the Land of the Fourth Dimension, “movement,” such as we understand it, exists no more. Now, there are only changes of qualities, and so, in the vulgar sense of the word, we must remain “immobile.” This same crude comparison allows us to perceive that, when one is transported into the Land of the Fourth Dimension, there is equally A DISPLACEMENT IN TIME. . . . In this case, as with the displacements in Space, displacement in Time is achieved by means of a transmutation, or movement, of the Atoms of Time. This movement results from the action upon the atom coming from this [alchemical] Philosopher’s Stone, or, better stated, from the action of this monad—which is our mind—upon the atom. . . .

By art alone a perpetual contradiction is thrown at Science. Art alone proves to us that there is to be found another world of qualities, presently still beyond us, but to which we are linked. This is a [superior] world which we can directly experience. It is this world which will permit us instantly to judge the greater or lesser value of an artistic symbol conceived within three dimensions. Without, however, the existence of this [other] world verifiable in four dimensions, one which is known by our minds in a way going far beyond all ideas of Space and Time, the evolution of the races must prove inexplicable. Without this other world, progress will become non-sense and all art just folly.⁴⁴

Again, although tiresome, being a text more often cited than actually read, this had to be quoted at length.

As nobody studying the supposed effects of Pawlowski’s writings upon Duchamp seems ever to have remarked, all this has its near exact counterpart in slightly earlier writings published in French by the avatars of the Esoteric Tradition. An apposite example is the often quoted six-hundred-page treatise by Papus, the *Traité Élémentaire de Science Occulte* (1897). Likewise, to cite but one typical passage from his endlessly varied and often reprinted occultist litanies, Papus proposes that, “the unchanging basis [in effect, a dogma] of Occult Science can be divided into three components: 1. The existence of the *Three-Part-Unity* as the fundamental law belonging to actions occurring upon all of the planes in the Universe; 2. The existence of *Correspondences* intimately linking together all portions of the visible and invisible Universe; 3. The existence of an *Invisible World*, one which is an exact double of the visible world and a factor perpetually acting upon that visible world. . . .”⁴⁵

We may now explore an entirely different, non-occultist aspect of some potential impact exerted by Pawlowski’s fourth-dimensional speculations upon the formulation of, as it were, Duchamp’s lifestyle. Looking over the facts of

our secretive artist's adamantly leisurely life, we can easily imagine how he might have originally responded to an often capitalized statement by Pawlowski:

The goal of every human being, which is additionally the *raison d'être* of all civilization, is to diminish, or suppress altogether and by any and all possible means, the amount of FORCED LABOR imposed by the needs of our physical maintenance. The goal is instead to acquire LEISURE [*le loisir*], meaning the possibility of liberated labor toward which all our moral being aspires. In our time, it is only by labor which is carried out in absolute freedom—activities which are themselves material or moral, recreational or speculative, those which are, however, BEYOND ALL IMMEDIATE NECESSITY—that Man is enabled to raise himself above his physical condition. Thereby he achieves the work of art which is splendidly USELESS.⁴⁶

Given the preceding, a certain minor rectification of Duchamp scholarship is called for. In short, during his conversations with Cabanne in 1966, Duchamp underestimated, perhaps purposively, the debt of his readings in Pawlowski's visionary texts. For instance, even his notorious dedication to irony and wit—not to mention his obviously consistent application to the practice and theory of "l'oeuvre d'art splendidement INUTILE"—all seem to fall neatly in line with Pawlowski's further affirmations, including "moral anarchism":

Humor represents the recognition of relativity. This critical sense is applied to the highest kinds of research. Humor is the exact sense of the relativity of everything. Humor is the constant criticism of all that which is believed [by others] to be definitive. Humor represents an open door to new possibilities, without which no progress of *l'esprit* will be at all possible. Humor alone understands how NOT to conclude or to infer. In effect, every firm conclusion represents *une mort intellectuelle*. It is the negative side of humor which offends a great many people. This is because humor indicates the limits to our certitudes, and any recognition of these limits is the greatest service which one might ever be able to render. . . . There is a real danger in viewing humor simply as a idle diversion for the mind; nevertheless, no such criticism can be more profound nor more fertile in its potential results. . . . In the creation of art and literature, the PLAY FACTOR has been allowed since Antiquity, especially because it was thought that art was, and still is, nothing but idle play, a mere social diversion which does not really touch upon the "realities." Humor can become alarming, especially when practised as a kind of moral anarchism, and this is what happens once it begins to attack "serious things."⁴⁷

In 1918, when he was still only thirty-one years old, Duchamp executed his last oil painting on canvas. Inexplicably called *Tu'm* . . . (fig. 13),

it has been little studied and not much commented upon by Duchamp's numerous exegetes. Nevertheless, as we will directly propose, complementing other observations already made in chapter 6, this work appears to represent another eccentric fusion—a rapprochement very much à la Jouffret and Pawlowski—of the Fourth Dimension and Esoteric Chemistry. Unquestionably, it also represents a postpainterly synthesis of the artist's previous oeuvre. As Duchamp told Arturo Schwarz just before his corporeal demise, "It is a kind of inventory of all my preceding works, rather than [being] a painting in itself."⁴⁸ This outsized painting (70 x 313 cm.) is also a literal projection of his artistic persona, for it also includes carefully traced cast-shadows projected by four of his ready-mades. Duchamp explained the matter in some detail much later to Pierre Cabanne:

In the painting I executed the cast-shadow of the [ready-made] bicycle-wheel, the cast-shadow of the [ready-made] hat-rack, which is placed above, and then there is also the cast-shadow of a [ready-made] corkscrew. I had found a sort of [light] projector which made rather good shadows, and I projected one for each object, and these I traced by hand onto the canvas. Right in the middle, I also put a hand painted by a sign painter, and I even had the good fellow sign it. It was a sort of compendium of things I had made earlier. The title makes no sense: you can add whatever verb you like after "*Tu m' . . .*," just so long as it begins with a vowel.⁴⁹

In the middle of his composition, just as he admitted, Duchamp allowed a wholly, foreign irruption, for he had ordered a sign painter to render a pointing hand and this digital signpost was proudly signed "A. Klang" by the mercenary artisan. It is also clear that the underlying idea for this painting had been in Duchamp's mind well before 1918. Note 55 (ca. 1915?) describes the scheme eventually to be pursued in *Tu m' . . .* There it was explained as a "*rapprochement*," meaning a kind of Reconciliation of the Opposites. According to Duchamp, "Shadows [will be] made by Readymades. Shadows [will be] cast by two, three, four Readymades [in order to be] brought together [*rapprochés*]. . . . Take these 'become-to-be' objects [*ces 'devenus,'* or 'transmuting bodies'], and from them make a tracing, without of course changing their positions in relation to each other in the original projection." Note 85, which, according to its inscription, was "probably to relate to the notes on fourth-dimensional perspective" (and which was apparently written as early as 1913⁵⁰), states that Duchamp's immediate task—even then—was to be as follows:

After the Bride [in the *Large Glass*] make a picture of shadows cast from objects, [cast] first on a plane and [then] upon a surface with such and such a curvature [and] thirdly upon several transparent surfaces. One can thereby obtain a hypo-physical analysis of successive transformation

of objects (in their form, contours). To achieve this, first determine the sources of light (gas, electricity, acetylene, etc.) serving to differentiate the colors. Secondly, determine their number. Third, determine their situation with respect to the receptive planes. Obviously, the [transmuted] object will not be just any object. It shall have to be constructed in three dimensions, sculpturally. The execution of the picture [will be made] by means of luminous sources, and by drawing the shadows upon these planes simply by following the “real” outlines [of the] projected [shadows]. All this is to be completed, and is specifically to be related to the subject-matter.

From such scribblings, we learn that Duchamp’s underlying idea was somehow to deal with both “fourth-dimensional perspective” and the “hypo-physical transformations of objects.” To see how this scheme actually works in *Tu m’ . . .*, we begin by remarking that, overall, the composition of Duchamp’s canvas is perhaps best understood to be triadic: it has a left zone, a symbolically complex intermediary area, and then a right zone. Objects appear to move in from either side, left and right, of the composition; obviously, they are meant eventually to slip into the central zone. All the various objects depicted in *Tu m’ . . .* are projected, rendered in a shadowy perspective scheme, and the vanishing points traced by their orthogonals generally converge (à la Alberti) towards the central zone. Once gathered together within this intermediate region they should be ready now to effect their desired “passage” through an illusionistically painted, or “imagined,” jagged tear. The painted rent, the figurative vanishing point—literally an “escape point” (*pointe-de-fuite*) for the entire composition—is tenuously held together by three “real” safety pins, concrete signs of increasingly fragile restraints belonging to the three-dimensional world. Running diagonally across the canvas, this ragged aperture must represent the choke point (*bouchon*) from whence mundane, now liberated, objects shall fly away into some Great Void, the Fourth Dimension. The artist’s illusory rip is a visual paradox, representing the multiple dichotomies existing between three-dimensional reality, two-dimensional illusionism, and, finally, fourth-dimensional potentiality.

This ingenious system of visual paradox is restated and then figuratively fixed, by a “real” golden bolt that has been tightly screwed into the last of a sequence of colored squares placed by Duchamp above in the left hand zone. Immediately below the sequences of stacked colored squares, which recede à l’infini from the upper left edge and steadily advance toward the center, there begins a parade of ready-mades. The left zone contains cast shadows of the *Bicycle Wheel* (MD-87), the *Three Standard Stoppages* (MD-94), and a certain *Corkscrew* (*Tire-bouchon*, not otherwise known to Duchamp aficionados, but also meaning “lesbian” in French argot). In the center we now have, instead of figurative “shadows,” a very real *Bottle Brush*. Projecting from the trompe l’oeil rip, it creates a fourth shadow, a “real one,” so making

another wry comment on the enframing concept of levels of (mere) reality and (superior) metareality. Cast upon the right hand side is the projected shadow of a ready-made *Hat Rack* (MD-112). Beneath this unreal shadow (for shadows are only illusions) there is placed yet another “real,” but not really “real” for being only illusionistically painted, three-dimensionally conceived contraption.

The singularity of the right hand zone is further identified with a perspective system, the one that orders Duchamp’s ingenious “Contraption” (my term) and, since it is fixed upon the bottom center of the painting, this is a wholly different perspective scheme from the one found in the left zone. The index finger of an admonishing hand painted by Mr. Klang points to a single, solid white, vertical plane seen in oblique perspective. From each of the four corners of the upright white plane there extend, in horizontal rows, four pairs of curved lines, either black or red in color. These lines represent dimensionless, mirror images of the two-dimensional *Standard Stoppages* looming below in the left zone. From several points on the “Stoppage Lines” (my term, but referring to Jouffret’s “droits”) banded and multicolored “Banded Sticks” (my term, from Jouffret’s “bandes”) recede obliquely into space and uniformly converge upon their collective *pointe-de-fuite* situated at the bottom of the picture plane. Each band of color on the twenty-four Banded Sticks shifts according to a regularized system of lateral measurements. Each successive color change on a receding Banded Stick marks the individual axis point (probably corresponding to Jouffret’s “pointes”) for numerous compass-drawn circles encasing each Banded Stick, like bedsprings, from beginning to end.

As we already know, *Tu m’ . . .* was commissioned by Katherine Dreier, who paid Duchamp in 1918 a then huge amount, one-thousand dollars, for his evidently symbolic painting. In this case, an interpretation based on a format derived from the Esoteric Tradition seems certainly called for, if only because, as we read before, in chapter 5, Miss Dreier was herself an outspoken adherent of Theosophical and Anthroposophical beliefs. Since we also know that *Tu m’ . . .* was specifically designed to fit over the bookcase in her Manhattan apartment, it has been plausibly concluded that Duchamp’s painting literally complements the contents of her esoteric publications.⁵¹ In any event, a year before, in 1917, Dreier had congratulated Duchamp in writing, calling him “[John?] Dee” for his unique “spiritual sensitiveness.”⁵² Among many other occultist writers, Dreier is especially known to have favored writings by Claude Bragdon, who would publish, in 1920, a translation of Ouspensky’s *Tertium Organum* (see below). However, five years before Duchamp executed his complicated painting, Bragdon had already issued his own esoteric treatise on the Fourth Dimension, *A Primer of Higher Space* (1913). This is the text that we may use to provide a plausible, but wholly esoteric explanation for two prominent motifs in Duchamp’s canvas, namely

the shadowy “Corkscrew”—which represents, after all, just a ready-made spiral—and the defiantly projecting “Bottle Brush.”

In his *Primer*, Bragdon inserted a simple line drawing of a spiral passing through a plane (fig. 23). His source was in turn obviously the writings of Charles H. Hinton, particularly the fourth chapter in the Englishman’s book on *The Fourth Dimension* (1904).⁵³ Duchamp evidently knew this same drawing—but rather than from Hinton, an Oxford-trained and rather mystical mathematician, more likely he knew it by way of the Theosophist Bragdon. In the way Duchamp had already carefully copied Bragdon’s motif, it first appears as a very rough thumbnail sketch in his Note 122, which deals with a certain “Manipulator of Gravity,” representing a symbolic point of entry into the superior Domain of the Bride in the *Large Glass* (see fig. 11 for its location). In any event, here is what we may suppose Duchamp had read in Bragdon’s *Primer* about Bragdon’s simple spiralling figure (fig. 23):

If we pass a helix (a spiral in three dimensions) through a film (a two-space), the intersection will give a point moving in a circle [which is] represented in the film by the consecutive positions of the point of intersection. The permanent existence of the spiral will be experienced as a *time-series*. . . . We consider the intersections of these filaments with the film as it passes to represent the atoms of a filmar [or “roto-relief” type] universe. . . . Now imagine a *four-dimensional* spiral passing through a *three-dimensional* space; the point of intersection, instead of moving in a circle, will now trace out a sphere. . . . Its presentiment in three-space will consist of bodies built up of spheres of various magnitudes moving harmoniously among one another, and requiring *Time* for their development. May not the Atom, the Molecule, the Cell, the Earth itself, be so many paths and patterns of an unchanging Unity?⁵⁴

Being a Theosophist, Bragdon must naturally derive some pattern of transcendental significance from such kinetic (or cinematographic) geometrical figurations. Like so many philosophical Occultists, he was particularly fascinated by the dematerialized ideas of the Neoplatonists. Therefore, and perhaps inevitably, he alluded to the most repeated of all Platonic metaphors, the figure of the projected shadow-forms (especially as treated in Plato, *The Republic*, 7. 7, “The Simile of the Cave”). According to Bragdon,

Our idea of space is partial, and like many another of our ideas needs modification to accommodate it to fuller occult knowledge. . . . It may be that our space bears a relation to space in its totality, analogous to that which the images cast by a magic-lantern bear to the wall on which these images are made to appear—a wall with solidity, *thickness*, extension in other and more directions than those embraced within the wavering circle of light which would correspond to our [three-dimensional] sense of the Cosmos.

One's proper conclusion ("to accommodate it to fuller occult knowledge") is that, "our space is, as it were, an interval, a gap in higher space. . . . In some way unknown to us, all the objects of our world have an infinitesimal 'thickness' in the higher dimension; they are in reality three-dimensional projections, or cross-sections, of higher solids traversing our space."⁵⁵ Bragdon's timely mention of various transmutations occurring among "the atoms of a filmar universe" complements a parallel, but now strictly alchemical interpretation of *Tu m'* . . . This is an interpretation that may be derived solely from the picture's rather obvious color symbolism.

In both the left and right zones of Duchamp's picture one perceives evidence for a carefully deliberated scheme of chromatic progressions. As is made particularly apparent in the left-hand sequence of *Tu m'* . . . , their order is, in fact, exactly like those fixed color progressions considered inherent to the alchemical Opus. According to Albert Poisson (who is here merely summarizing conventional wisdom of the time), the proper order, from the beginning to the end of the alchemical operation, is: "1. noir; 2. blanc; 3. violet; 4. rouge, ou jaune."⁵⁶ This sequence—"1. black; 2. white; 3. violet; 4. red, or yellow"—is just what is seen in Duchamp's *Tu m'* . . . , and yellow (*jaune*) is indeed the final color, properly fixed by the artist's golden bolt. Between the four major groups of "black, white, violet, red or yellow," Poisson also notes that there are, additionally, "the secondary, or intermediary colors, which serve as a transition," and these include, says Poisson, "gray, green, blue, yellow, orange, red," and so forth. According to our modern French Alchemist, "these colors must appear one after the other in an unvarying order; their regular succession indicates that the Great Work is going well."⁵⁷

As directed by Duchamp, a pointing hand painted by Mr. Klang calls outsized attention to a large, pure white plane placed beneath a bottle brush leading to some higher realms of Gnosis uniquely encountered in the Fourth Dimension. By Poisson's reckoning, this snowy plane would have to be a sign of *leucosis*, the White Stage, itself a clear announcement of "the intermediary stage of the Great Work overall."⁵⁸ Given the central placement of the admonitory hand, this seems a most fitting motif for Duchamp's final painted opus. In any event, the significant functional connections existing between fourth-dimensional spatial speculations and neo-alchemical speculations had already been carefully drawn by both Jouffret and Pawlowski, two authors everyone now acknowledges to have been carefully studied by Duchamp.

By his own admissions, Duchamp derived most, if not all, of his knowledge of an essentially unknowable "*quatrième dimension*" from texts published by Esprit Pascal Jouffret and Gaston de Pawlowski. As we also must believe, Claude Bragdon (but only somewhat later, ca. 1918) had also made his own, probably decisive contributions to Duchamp's *Tu m'* . . . Although mention is commonly made of these avatars of the Fourth Dimension in scholarly

evaluations of Duchamp's art and thought, it would appear that most scholars only cite, rather than actually read, these three authors. When their texts are actually read critically, meaning not so much for their rather absurd mathematical arguments as instead for their overriding metaphysical or mystical thematics, we find that these authors were themselves unquestionably receptive to ideas analogous to those kind of obsessions always belonging to modern theorists of the Esoteric Tradition.

This leads us to another question: just how esoteric generally were popular conceptions of the Fourth Dimension at the time that Duchamp and his avant-garde colleagues began to deal with the subject in unison? In this case, one logical assumption—for which there is no significant contradictory evidence—is that the avant-garde artists at best only read various *divulgations*, or popularizations, dealing with the topic, and almost never any scholarly publications produced by recognized mathematicians and physicists.⁵⁹ In any event, contemporary popularizations of the truly erudite cosmological theories of, for instance, Einstein and Minkowski did not really exist until after the Armistice of 1918.⁶⁰

In 1911 a Scot, Duncan Sommerville, published a useful “Bibliography of Non-Euclidean Geometry” including some four thousand references and titles. This editor observes that the subject of non-Euclidean geometry, eventually also including the “Fourth Dimension,” was then only about seventy years old, for it only received its first “explicit mention” in 1843. However, as he adds, the subject “did not really begin to be studied seriously [by mathematicians] until about 1870, when Hoüel's French translations of Lobachevsky's and Bolyai's somewhat inaccessible memoirs appeared.” Sommerville also notes with some alarm how, shortly thereafter, from around 1880 onwards, “Space of n-dimensions was [already] attaining an unfortunate popularity in the hands of the Spiritualists.”⁶¹ That the Fourth Dimension should become a spiritualist topic was inevitable; it had, in fact, been so designated from the very outset. The first published mention, as best as I can tell, of the term *Fourth Dimension* had appeared—somewhat surprisingly—as early as 1671. Here, already, the meaning was unquestionably occultist—even granted that the word *occultist* itself is only first recorded in 1881, in a Theosophical best seller by A. P. Sinnett, *The Occult World*. One reads in Henry More's *Enchiridion Metaphysicum* (or “Metaphysical Guidebook” of 1671): “That besides those THREE dimensions, which belong to all extended things, a FOURTH also is to be admitted, which belongs properly to SPIRITS.”⁶²

In writings about the Fourth Dimension published before 1914, the authority most commonly cited was J. C. F. Zöllner, a German astronomer from Leipzig. His major publication was the *Wissenschaftliche Abhandlungen* (or “Scientific Treatises,” 1878), which was soon translated blatantly into

English, as *Transcendental Physics* (1880). It turns out that Zöllner mainly employed the concept of the Fourth Dimension as an argument in support of Transcendentalism, more specifically as a justification for his own rather unscientific researches into Spiritualism. Zöllner's pseudoscientific experiments mainly involved an internationally acclaimed American medium, Henry Slade, who "demonstrated" the Fourth Dimension to the credulous German by tying knots in an endless cord, interlinking wooden rings, and extricating coins from sealed boxes, all of which are but common magic tricks. Nonetheless, Zöllner affirmed that his haphazard tests with the Yankee trickster Slade were "devised on the principle of the extended Concept of Space [*Raumanschauung*] for the purpose of experimental proofs of the reality of a Fourth Dimension," additionally affording to this True Believer "incontrovertible proof of the reality of so-called *clairvoyance*."⁶³ Besides recognizing that the practice of Renaissance laws of perspective provides rules (to him already obsolete) that govern our everyday three-dimensional or "quadratic" vision, Zöllner argues that so must there also be ascertainable certain laws of perspective governing a strictly "cubical vision" belonging to the conditions of clairvoyance. Therefore, Zöllner's mission was to reconstruct those "psychic phenomena," and he did so by devising new "laws of perspective for space intuition widened by a [fourth] dimension."⁶⁴

As Zöllner describes the phenomenon, "from the direction of the Fourth Dimension the, to us, three-dimensionally enclosed space must be regarded as appearing open, and indeed in an interval from the space of our body [and] so much the greater the higher the soul is raised to the Fourth Dimension." The proper conclusion was that,

thus Slade's soul was, in the first case, so far raised in the Fourth Dimension that the contents of the box in front of him were [made] visible in particular detail. In the second case, one of those intelligent beings of the Fourth Dimension looked down upon us from such a height that the contents of the rectangular box were [made] visible to him. . . . Next, I could distinctly perceive the walls [even though] at first they seemed very dark and opaque, but soon became brighter, and then *transparent*.⁶⁵

Without going into further details about widely read arguments first presented by Zöllner in 1878, and later faithfully echoed in works by many other once widely studied esoteric writers,⁶⁶ it is sufficient to summarize these arguments as representing a quasi-painterly effect that might be best called "simultaneous perspective." Regarding its strictly esoteric equivalent, astral vision, we find (as made commonly available in French in 1899) one such statement, specifically rendering *la vision astrale* as being both "vitreous" and "cubistic," and this is contained in C. W. Leadbeater's treatise on *Le plan astral*. Sight on the astral plane is, Leadbeater claims,

a faculty very different from and much more extended than physical vision. An object is seen [with astral vision], as it were, from all sides at once, the inside of a solid being perceived as plainly open to the view as the outside. . . . Looked at on the astral [or fourth-dimensional] plane, for example, the sides of a glass cube would all appear equal, as they really are, while on the physical [or three-dimensional] plane we see the further side in perspective—that is, it appears smaller than the nearer side, which perception is, of course, a mere illusion. It is this characteristic of astral [or wholly Occult] vision which has led to its sometimes being spoken of as sight in the Fourth Dimension.⁶⁷

The art historian should recognize that, in the strictly visual (rather than metaphysical) sense, “simultaneous perspective” is also the most applicable term to describe familiar space-destroying formal devices commonly employed by the Cubist painters. According to John Golding, the distinguishing formal characteristics of Cubist painting are “the fusion of objects with their surroundings [and] the combination of several views of an object within a single image [representing] the dismissal of a system of perspective which had conditioned Western painting since the Renaissance [and as is evidenced in] systems of transparent, interpenetrating shapes or planes.”⁶⁸ Similarly, those ascertainable laws of perspective that historically governed, after 1910, a strictly “cubical vision”—the one for which earlier Professor Zöllner had so impressively argued as properly fitting to conditions of clairvoyance—may be called, in a strictly historical sense, “proto-Cubist.”

The enduring formal principles of esoteric fourth-dimensional perspective schemes are summarized in a more current *Encyclopedia of Occultism* (1978), where it is observed how “Professor Zöllner made the first attempt at the experimental demonstration of the Fourth Dimension in his séances with Henry Slade.” More significant for this reanalysis of some mystical metaphysical notions evidently propelling early modernist antiperspective speculations is the further observation that, “for Spiritualists, the connecting link between the physical body and the fourth-dimensional vehicle is the etheric double. Clairvoyants who see the front, sides, back and every internal point of three-dimensional objects simultaneously see it with the fourth-dimensional organ of sight.” As these modern clairvoyants choose to believe, “if the fourth-dimensional vehicle is so mobile and plastic that it is capable of being moulded by the mere power of will, *apparitions* will find a ready explanation, provided that the state of the [clairvoyant] percipient is suitable for the reception of super-normal impressions [and such] a working hypothesis would go far to remove the cleavage between religious and scientific thought.”⁶⁹

In order to extend an argument exhuming an easily overlooked, but unquestionably tangible point of functional convergence between religious Occultism and the plastic Avant-Garde, we may now begin to read just what the Cubist painter-writers had to say about their brave new fourth-dimensional

experiments, as carried out just before the outbreak of World War I. For instance, in articles first published in the spring of 1912, Guillaume Apollinaire observed how “fourth-dimensional, modern studies” really possess, or betray, “the characteristics of religious art”:

The new artists have been violently attacked for their [recent] preoccupations with geometry [which is a sign] of the restiveness felt by great artists yearning for the Infinite. The new painters do not [however] propose, any more than did their predecessors, to be geometers. . . . Today, scientists no longer limit themselves to the three dimensions of Euclid. The painters have been led quite naturally, one might even say by intuition, to preoccupy themselves with the new possibilities of spatial measurement which, in the language of the modern studies, are designated by the term “*le Quatrième Dimension*.” Regarded from the plastic point of view, the Fourth Dimension appears to spring from the three known dimensions: it represents the immensity of space eternalizing itself in all directions at any given moment. . . . The art of the new painters takes the infinite universe as its idea. . . . They discard more and more the old art of optical illusion and local proportion in order to express the grandeur of meta-physical forms. This is why contemporary art, even if it does not directly stem from specific [traditional] religious beliefs, nonetheless does possess some of the characteristics of great, that is to say, religious art.⁷⁰

As credibly summed up by Thomas Gibbons, Apollinaire’s argument really states that: “The young Cubist painters are preoccupied with finding ways to represent, in a new form of religiously sublime art, the faculty of fourth-dimensional vision, which surpasses the material, illusory world of the senses and gives direct access to permanent transcendental qualities.”⁷¹ Other similarly millenarian and mystical statements to the same effect are easily found. For instance, Albert Gleizes stated that the Cubist painter must reimagine his motif, must “transport it into a Space which is at once spiritual and plastic in nature, a Space in regard to which we may perhaps allow ourselves to speak of the Fourth Dimension.”⁷²

Obviously, something like a universal platform among the painters of this era was a staunch opposition to superficial or material reality; complementing this rhetoric in Cubist circles there was much talk about mysticism.⁷³ Evidently, it was specifically the spiritual space belonging to the Fourth Dimension that could best serve as a timely means of reconciliation of these adamant oppositions. For these writers, the Fourth Dimension becomes the only plane (astral or otherwise) permitting superior consciousness, a dematerialized and prophetic vision of an all-interpenetrating and indivisible Unity. Accordingly, Maurice Raynal praised primitive art, which could just as well be either Egyptian, Iberian, African, or Oceanic, arguing that it was specifically

mysticism which illuminated their thinking. . . . Instead of painting the objects as they saw them, the Primitives painted them as they thought them, and it is precisely this law that the Cubists have re-adopted, amplified and codified under the name of the Fourth Dimension. The Cubists, not having the mysticism of the Primitives as a motive for painting, took from their own age another kind of mysticism, a mysticism of logic, of science and reason, and this they have obeyed like the restless spirits and seekers after truth that they are.⁷⁴

Granted that a popularized and increasingly spiritualist interpretation of the Fourth Dimension had been widely available to artists (among others) since the early 1880s, why did the space-negating formal conventions associated with Cubist painting, as such, not come into being earlier? The best answer, the most logical external stimulus, would seem to be X rays. News of Röntgen's amazing discovery of such penetrating and dematerializing vision, which could be conveniently captured on a photographic plate—a flat surface like the Cubist painter's canvas—was only first published in 1896. Afterwards, however, they began to cause a worldwide sensation (also leading to the invention of fictitious N rays), and Röntgen's biographer notes how, "the newly discovered rays were soon associated with many mysterious hopes and fads which continued to occupy human fancy through many centuries, such as the discovery of the magic stone [or *Pierre philosophale*], spiritualism, soul photography, soothsaying, fortune telling, telepathy, etc."⁷⁵

For the spokespersons of the Esoteric Tradition—and probably for numerous avant-garde artists as well—those endlessly publicized X rays of Dr. Röntgen had at last provided some long awaited proof for the immateriality of matter and, better yet, for the legitimacy of clairvoyant vision. Thereby, or so it seemed, those shopworn occult notions of "astral sight," meaning the same thing to esotericists as "four-dimensional vision," had now suddenly become scientifically validated. Broadcast loud and clear by various esoteric authors, those simultaneously utopian and pseudoscientific, astral perspectives became thoroughly current at the turn of the twentieth century.⁷⁶ In short, if the historian ignores Occultism, then a major historical contribution to distinctively modernist thought is ignored. "To ignore fin de siècle Occultism is to ignore the effect of major scientific discoveries on the popular imagination."⁷⁶

We may now cite another text, originally published in French and dealing with the Fourth Dimension, which I presume to have been read by Duchamp early in his career, particularly during his librarian phase, when this publication belonged to the Bibliothèque Ste. Geneviève. The work in question, published in Paris in 1912 by Éditions Théosophiques, was written by A[ndré?] de Noircarme and is entitled, simply, *Quatrième Dimension* (it shall be referred to again in the next chapter).⁷⁷ Since this author, a figure otherwise largely unknown to scholarship, clearly identified himself to be a "théosophiste," whatever follows must represent interpretations of the Fourth Dimension that strictly pertain to usages common to the Esoteric Tradition. For Noircarme, in sum,

Theosophists believe that the physical world is far from representing the entire universe and that beyond there extend other worlds which are made from a more subtle matter, and that these are endowed with further dimensions. . . . For Theosophists, truly the scientific study of dimensionality represents research into unknown worlds which they do know to exist.⁷⁸

For Noircarme, the latent symbolic function of his n-dimensional subject is a result of the standard occultist assumption of a “superior vision which functions independent of physical vision.”⁷⁹ Therefore, and by extending arguments already published by (for instance) Papus, the Fourth Dimension really represents “the reflection, the limited reproduction of an ideal form, or Archetype.”⁸⁰ As such, states Noircarme, it is “another world completely different from ours and imperceptible by us, even though it interpenetrates throughout our world.”⁸¹ According to Noircarme, students of Occultism are uniquely endowed with a certain “vision des corps à 4 dimensions” which is, nonetheless, “indépendamment de la vue physique” solely belonging to our mundane, three-dimensional world. Those few endowed with that fourth-dimensional vision, a kind of clairvoyance, “are in fact uniquely enabled to see that which has four dimensions.”⁸²

In effect, esotericists understand that any kind of n-dimensional vision only constitutes relative states of consciousness. As such, it is just as Noircarme affirmed: “It is their different levels of consciousness which really constitute the quality of their different worlds. In reality, matter is not limited to three or four dimensions; it is, in fact, only consciousness which is limited, not matter.”⁸³ Papus, a typical spokesman of the French Esoteric Tradition, states much the same thing: “Ce plan astral est dans une région métaphysique impossible à percevoir, autrement que par le raisonnement,”⁸⁴ or as one might say now (*à l'américain*), “Trust me!” Affirming that all Creation begins above and “descends” below, Noircarme merely repeats the famous opening statement of that basic hermetic primer, *The Emerald Tablet*.⁸⁵ According to our Theosophical author’s broader applications of a standard esoteric trope, the concept of such n-dimensional, and in this case metem-psychotic, migrations therefore becomes more narrowly identified with standard Theosophical doctrines of “Involution (or Descent)” and “Evolution (or Ascent)”; which, as it turns out, are also terms omnipresent in Papus’s *Treatise of Occult Science*.⁸⁶

In effect, for Noircarme the Spirit is eternal, is not destructible, and, after death, it “transmigrates”—often in the immutable form of a cube (!)—into a superior world, that of the Fourth Dimension: “The disappearance of a body, its death, in no way affects the matter making up its superior [or otherworldly] body. While the physical body may be dying, its fourth dimensional body is neither diminished nor is it at all changed, no more than is the cube—*pas plus que le cube*.”⁸⁷ Even more interesting is the way that this Theosophist sums up the materializing-to-dematerializing power [*pourvoir*] of the fourth-dimensional experience by reference to another standard hermetic trope,

the alchemical motto of “Dissolve and Coagulate.” As Noircarme sums it up, “4^e dimension: [c’est le] pouvoir de déségrégation et réagrégation immédiate des corps, [c’est-à-dire] ‘*Solve et Coagula.*’”⁸⁸

Another important work by Duchamp that has been previously but, as yet, somewhat inconclusively related to his fourth-dimensional speculations is the infamous *Nu descendant un Escalier n° 2* from early 1912 (MD-64). I will now attempt, via Noircarme, to refine a strictly fourth-dimensional potentiality applicable to this notorious painting, thus stressing its strictly esoteric potential, and in a way that additionally complements a previously advanced, strictly hermetic-alchemical interpretation (see chapter 4). As we saw, Duchamp characterized this celebrated work as being invested with some unquestionably unique characteristics, namely of “elementary parallelism” and “demultiplication.” Either term could be called essentially Duchampian in origin, but Pernety also seems to have made his contribution. It turns out that even the most meticulous students of various approaches to the Fourth Dimension current around 1910 have not really succeeded in identifying exact sources for either of these Duchampian terms—*parallélisme élémentaire* and *démultiplication*—within any of the contemporary publications dealing with purely mathematical (meaning genuinely scientific) speculations and experimentation.⁸⁹ We have already suggested that, quite to the contrary, the more likely source of both terms has to have been strictly hermetic, namely derived from Pernety’s *Dictionnaire Mytho-Hermétique*.⁹⁰

Nonetheless, a strictly modernist fourth-dimensional aspect was also unquestionably present in the conception of the second version of Duchamp’s *Nude Descending a Staircase*. Duchamp was perhaps most explicit about this painting’s inherent geometric qualities in an easily overlooked interview of 1938; he then affirmed that,

It is an organization of kinetic elements, an expression of time and space through the abstract expression of motion. . . . There are, I admit, many patterns by which the idea could be expressed. Art would be a poor muse if there were not. But remember, when we consider [rendering] the notion of form through space in a given time, we enter the realm of geometry and mathematics.⁹¹

We do, however, have some other corroborative evidence demonstrating that Duchamp actually did attribute a specifically fourth-dimensional significance to his most celebrated painting: Ernest Southard reported that Duchamp once told him that: “It is, after all, the Fourth Dimension.”⁹² If we really wished to ascribe a complementary fourth-dimensional significance to these works, then I would suggest this would best be done by reference to Noircarme’s Theosophical discussions of “The Ladder of Beings.”⁹³ In short, Noircarme claimed that, rather like Marcel’s notorious *Descending Nude*, “the

centers of consciousness are ‘descended’ into this [materialist] Universe in order to ‘evolve’ within it and for it.”⁹⁴

More useful for the point to be made here is a pull-out diagram inserted by Noircarme into his text (fig. 24).⁹⁵ Even though this, as it were, schematic image of the “Scales of Theosophical Dimensionality” is of the sort which one can easily find in innumerable Theosophical publications appearing between 1890 and 1920,⁹⁶ it proves most useful for our purposes. It is, in short, nicely labeled in French and, additionally, its initial appearance in print proves to be exactly contemporaneous to the execution of Duchamp’s fourth-dimensional *Descending Nude*. We previously read that in the 1964 lecture “Apropos of Myself” Duchamp stated that his painting displayed “some twenty different static positions in the successive action of descending.” According to our Theosophical schematum, “Descent” (in seven stages) is properly called “In-volution,” and this is the necessary preliminary stage for “Ascent” or “Evo-lution” (also requiring seven stages). Since these equally psychic and n-dimensional passages also include three additional “Waves of Life,” we also do find represented in Noircarme’s esoteric schematum, at the very least, “some twenty [3 x 7] different static positions.” Noircarme’s basic argument in regard to this diagram may be briefly stated in his own words:

All the states of matter succeed one after the other upon an immense ladder, moving from the one-dimensional world towards an infinitely-dimensional world . . . and the *scala* of beings (meaning the centers of consciousness inhabiting complex organisms) only really begins in the three-dimensional world.⁹⁷

It may now be additionally suggested that Noircarme also made his own peculiar contribution in 1918 to the complicated metaphysical framework of Duchamp’s *Tu’m* . . . (fig. 13). In this instance, the particular hypothesis is that Duchamp’s *pointe-de-fuite*, a vanishing point emphatically signalled by a rodlike and n-dimensionally interpenetrative bottle brush stuck into an illusionistic rip, most likely represents what Noircarme calls a “no-dimensional point,” a “point of departure leading to the Absolute,” and thereby that it announces the presence of “the cycle of dimensions.”⁹⁸ More to the point is Noircarme’s very concrete description of a certain “Measure of the Fourth Dimension,” which turns out to be “a rod,” and this rod (*tige*), as I believe, initially represented the very specific role reenacted by Duchamp’s *Bottle Brush* in 1918.

The correlation seems initially documented by Duchamp’s Note 122 where, besides hurriedly sketching a Bragdonlike fourth-dimensional spiral (see fig. 23), Duchamp additionally tells himself to study the problem of “the rod thrown into relief.” Noircarme’s functionally analogous fourth-dimensional example of “la tige en ressort “ (as Duchamp described it) reads as follows:

By a certain figure we can provide a clearer idea of the Fourth Dimension. Let us imagine a two-dimensional world, Plane P, which is traversed by a Rod R. This rod rises upwards, in relation to the plane, and into the third dimension [*cette tige s'élève, par rapport au plan, dans la 3^e dimension*]. . . . Once the rod begins to traverse the plane, the two-dimensional being on the plane will see a circumference appear which lasts [for instance] ten minutes and which vanishes once the rod passes. . . . This duration represents for a two-dimensional being the length of the rod within the third dimension as it is combined with the rapidity of its displacement within this direction. Let us apply the same reasoning to our own physical world. Everything which physically exists must evidently do so also in four, and even five dimensions, and so forth, until attaining the Archetype. Each physical manifestation can be considered to be like a limitation, in three dimensions, of a fourth-dimensional manifestation which exists before and after itself. While traversing our three-dimensional space, this fourth-dimensional manifestation [i.e., the *rod-tige*] produces, within the limitations of the former, a physical manifestation which lasts a certain time according to, on the one hand, its one-dimensional length within the Fourth Dimension and, on the other, its rapidity of displacement in the direction of this dimension. . . . The time of its physical duration will henceforth represent the Fourth Dimension. Likewise, the duration of a manifestation within the fourth-dimensional world (or *plan astral*) will represent the fifth dimension, and so forth. . . . The point of encounter of this fourth-dimensional body with the three-dimensional world represents its physical birth. . . . The point of its separation represents death [*la mort*].⁹⁹

The above seems sufficient to establish a particular point, which is one that has really needed clarification. In short, like nearly everything else belonging to his career as an artist, Duchamp's celebrated forays into the mysterious Fourth Dimension apparently grew out of his involvement with readily available published materials explaining in colorful detail the ideas and themes of the Esoteric Tradition. Another notorious Duchampian pursuit, never before considered from an exclusively esoteric perspective, is that of Chance, *le Hasard*.

We know of another occultist writer—one among many, but one of the very few actually known to have been read by Duchamp (see chapter 4)—who had earlier presented various arguments for “Metempsychosis,” and this was Pierre Camille Revel.¹⁰⁰ As we see from the garrulously extended title of his book—*Le Hasard, sa loi et ses conséquences dans les Sciences et en Philosophie, suivi d'un Essai sur la Métempsychose considérée au point de vue de la Biologie et du Magnétisme physiologique* (1905)—all of his forthcoming arguments for the transmigrations of spirits (“metempsychosis”) had been uniquely, perhaps somewhat incongruously, prefaced by a close study of the “Laws of Chance.”

This is especially important to mention since Revel's two-part book, as published in 1905, presently remains the single *documented*, published source for Duchamp's notorious preoccupation with *le Hasard*, or Chance. Curiously, in spite of so much ink spilled on the subject of Duchamp's theories of chance, no one ever cites what M. Revel had to say about the subject, even though—to repeat a rhetorical point—his book remains the artist's only documented source material for his celebrated aleatory researches.¹⁰¹ At that time, of course, Duchamp was scarcely unique in pursuing the artistic possibilities presented by the operations of Chance—but Duchamp remains the only avant-garde artist known to have perused Revel's treatise.¹⁰² But first we must see what Duchamp himself actually said and did in practice concerning matters motivated by *le Hasard*.

Duchamp's first artistic use of pure Chance, during the winter of 1913–1914, appears in the process of the (non-) construction of his *Trois Stoppages-Étalons* (MD-94).¹⁰³ In this case, what we have is a triad of standards—templates or rulers—cut from wood following a preexistent format wholly generated “by hazard.” The curved, upper silhouettes of Duchamp's templates represent faithful reproductions of certain graceful, even airy forms that were initially conceived by the operations of pure chance. Duchamp took a rectangular canvas and stained it a uniform, nearly Stygian shade of deep Prussian blue. Then he clipped three lengths of thread; each was exactly a meter long, so representing three “standard” (*étalon*) units of measure. Their material basis was a white tread of the kind used in France by seamstresses to make invisible mends, reweavings called “stoppages.” Placing himself exactly one meter above his dark canvas, Duchamp let gently fall, one by one, each meter-long thread. In his Note 96, and as closely echoed in Note 97,¹⁰⁴ Duchamp announced the “Idea of the Fabrication” for his premier venture into pure Chance:

If a horizontal straight thread one meter in length falls from a height of one meter onto a horizontal plane; by deforming itself according to its will [*se déformant à son gré*], it provides a new image of the unit of length. Three samples [are] obtained in more or less similar conditions. Considered in their relation to one another, they represent an approximate reconstitution of the unit of length. The three standard stoppages represent the meter diminished.

Paradox arises in the act and by the fact of a meticulously executed—or completely unhaphazard—reproduction of the *étalons*, for this is which makes them, in this second but final stage, “le hasard en conserve” (Note 99: “preserved [or canned] chance”). To put it another way, an incongruous synthesis between wholly spontaneous Chance and subsequent and exacting reproduction seemingly represent yet another variation on an endlessly replayed theme, *coincidencia oppositorum*. In another, complementary sense,

what begins as a line, a two-dimensional form, ends up as a three-dimensional object, a wooden template. Since a largely weightless trio of threads slowly descends through space, so altering the outer appearance of its very being, perhaps it might also carry with it some additional, fourth-dimensional connotations. Particularly, Duchamp's mention of his positioning "perpendicular" to a plane upon which he lets drop his three threads makes one think of a likely source in Jouffret's *Traité*, particularly the passage where Jouffret described how:

For a [third-dimensional] person placed above Plane P, who can look down upon as it pleases [*le regarder comme il lui plaît*; being like Duchamp's phrase "*à son gré*"], the movement best explaining for him the phenomena radiating throughout the inhabitants of the plane is perhaps best called A ROTATION OF THE MOLECULAR PILE. It rotates around an axis situated upon this plane, so creating a [Duchampian, roto-relief-like] movement which these inhabitants do not know how to imagine.¹⁰⁵

Craig Adcock has also suggested an n-dimensional context to Duchamp's *Three Standard Stoppages*, observing that, "when Duchamp's pieces of string twisted themselves, 'as they pleased [*à son gré*],' through time and space, they were stopped, frozen by their impact with the pieces of canvas glued onto glass plates, just as the movement of the real [three-dimensional] world through time and space is stopped, frozen. . . . Perhaps he meant by his statement that they preserved a spatio-temporal [n-dimensional] movement."¹⁰⁶

This tentative suggestion seems worth exploring further. It may be again observed that Duchamp's *Standard Stoppages* appear twice in *Tu m' . . .*, in both left and right zones (fig. 13), and their respective appearances appear to reflect certain n-dimensional alterations. Moreover, the first verbal sketch for his penultimate easel painting, Note 85, seems to have been written about the same time (ca. 1913) as Note 97, dealing with his first assemblage wrought by Chance. Accordingly, one now ventures to ascribe a fourth-dimensional context to Duchamp's first essay in canned chance, involving "the idea of a *perpendicular* thread a meter long that falls from a height of one meter onto a *horizontal* plane." In the event, some of the terminology associated with the *Standard Stoppages* specifically seems a possibly direct reflection of the text of Noircarme's 1912 study on the *Quatrième Dimension*. For instance, Noircarme also spoke of certain "unités de longueur, centimètres par exemple." Moreover, Duchamp described the twisting "deformations" of a perpendicular line as it falls downwards through three-dimensional space, eventually to lie imprisoned upon a two-dimensional plane. According to Noircarme, "a fourth dimension should be simultaneously PERPENDICULAR to each one of the other three dimensions."¹⁰⁷

Likewise, a parallel movement and function is found in Noircarme's book, speaking of how "in fourth-dimensional space we can likewise make a

solid object around the plane which cuts it through the middle.”¹⁰⁸ Similarly, according to Noircarme, “in the fourth-dimensional world [perpendicular] rotations around a plane are, thanks to the fourth dimension, things as simple for us to comprehend as those kinds of rotations made around an axle.”¹⁰⁹ Duchamp additionally explained that his *Standard Stoppages* must be viewed horizontally, and not vertically. As was explained by Noircarme, the ascending dimensional sequences, representing “pouvoirs de conscience,” likewise begin with the first dimension: “longueur, pouvoir d’extension,” then pass to the second dimension: “largueur, pouvoir d’expansion,” then rise to the third dimension: “hauteur, pourvoir de capacité,” and then finally culminate in the Fourth Dimension. At this fourth stage, the Fourth Dimension is identified by Noircarme in strictly alchemical terms: “The fourth dimension represents the power of immediate disaggregation and reintegration of bodies: *Solve et Coagula*,” that is, “dissolve and coagulate,” according to the ancient Hermetic formula.¹¹⁰

Admittedly, Duchamp never provided any esoteric or even specifically fourth-dimensional explanations for his initial venture into pure Chance. For instance, in a public lecture called “Apropos of myself,” which he presented in 1964, Duchamp explained the functional genesis of his *Three Standard Stoppages* as follows:

They should be seen horizontally and not vertically. Each strip [*bande*] proposes a curved line made from stitching-thread, one meter long, after it had been dropped from a height of one meter [and] without controlling deformations of the thread during its fall. The shape thus obtained was fixed upon the canvas by drops of varnish. Three rulers [or “principles”: *règles*] reproduce three different shapes resulting from the fall of thread and [these templates] can be used to trace [repeatedly] those shapes with pencil on paper. This experiment was made in 1913 to imprison and to preserve forms obtained by chance, through *my* chance. At the same time, the unit of length—one meter—was changed from a straight line into a curved line [and] without actually losing its identity as the meter. And, even so, it was casting a pataphysical doubt on the concept of a straight line as being the shortest route from one point to another.¹¹¹

The artist once explained to an interviewer, Katherine Kuh, that “the idea of letting a piece of thread fall on a canvas was accidental, but from this accident there came a carefully planned work. Most important was the acceptance and recognition of this accidental stimulation. Many of my highly organized works were initially suggested by just such chance encounters.”¹¹² For him, particularly his fabrication of *Three Standard Stoppages*, “was really when I tapped the mainspring of my future. In itself, it was not an important work of art, but for me it opened the way—the way to escape from those

traditional methods of expression long associated with art. . . . For me, the *Three Stoppages* was a first gesture liberating me from the past."¹¹³

Intimations of some even broader, quasi-philosophical implications that could be associated with his *Three Standard Stoppages* eventually emerged in Duchamp's interviews with Pierre Cabanne:

The idea of "*le hasard*," which people were thinking about at the time [around 1913] struck me too. The intention consisted, above all, in forgetting the hand, fundamentally because even your hand, *c'est du hasard*. Pure chance interested me as a way of going against logical reality; [one could do this] by putting something on a canvas, on a bit of paper, by associating the idea of a perpendicular thread a meter long that falls from a height of one meter onto a horizontal plane, making its own deformations, *à son gré*. For me [additionally] the number three is important, but simply from the numerical, and not at all from the esoteric point of view: one is Unity, two is double or Duality, and three is 'the rest.' . . . My *Three Standard Stoppages* is produced by three separate experiments, and the form of each one is slightly different. I keep the line, and I have a deformed meter. It is, so to speak, a canned meter—*c'est du hasard en conserve*. It is diverting to preserve chance.¹¹⁴

That Duchamp actually *did* perceive the number THREE "from the esoteric point of view" seems a conclusion given substance by, among other evidence, a statement he made to Arturo Schwarz. He told this interviewer that, "for me, three is a magical number, but not magic in the ordinary sense. As I once said, the number one is Unity, the number two is the Couple, and three is the Crowd."¹¹⁵ In any event, Alchemy is certainly "not magic in the ordinary sense," and Albert Poisson also knew that "Three" is a sign central to the entirety of the hermetic pursuit for it represents nothing less than "la triple adaptation de la théorie alchimique," being a "symbole de l'équilibre absolu," namely between the "trois principes," meaning "Force-Sulphur, Matter-Mercury, Movement-Salt."¹¹⁶ Even if you do not happily accept the specifically alchemical interpretation of Duchamp's "three," then you must at least admit to the historical fact of its universal acceptance by nearly all writers of the broadly esoteric persuasion. Among those was (once again) Papus, who throughout his *Traité Élémentaire de Science Occulte* (1897), speaks of "les trois hiérarchies (FAITS-LOIS-PRINCIPES) désignées par les anciens sous le nom de LES TROIS MONDES, l'autre sur le microcosme et le macrocosme. . . ."¹¹⁷ Likewise we have already read (in English) his observation that, according to all occult science, "L'existence de la *Tri-Unité* figure comme loi fondamentale d'action dans tous les plans de l'Univers."

It may be additionally mentioned that, during that interview with Katherine Kuh, Duchamp also went on to suggest that Chance, as either a general process or an individual action, had more than just a quasi-artistic

application, that it perhaps also potentially symbolically represented one's own personal luck, or fateful outcome. This is a hypothesis further reinforced by another comment to Kuh: "Lucky or unlucky chance is a completely personal matter. My chance is not [like destiny or fate] the same as yours: what is lucky for one person may be unlucky for somebody else. I was interested in expressing this [broader] concept visually."¹¹⁸ This theme is also echoed in Note 47, referring to "lucky or unlucky chance (in or out of luck)."

With this exposure, provided by Duchamp himself, of a potential linkage existing between Chance and Fate, we may now turn to the very same concept of *le Hasard* discussed at length by P. Camille Revel. In fact, Revel explains that the whole purpose of his 194-page treatise on "Chance, Its Laws and Consequences" is only to serve as an obligatory "préface à cette étude métempsyco-siste." Therefore, by Revel's definition, the only function of his extended ruminations on Chance was to justify another, wholly esoteric analysis of the verities of putative, "metem-psychotic" transmigrations of souls.

Viewed overall, "according to the theory of Chance," as defined by Revel, "every phenomenon which obeys the law of Time and, likewise, the Principle of Conservation [*le principe de conservation*] must fall within the framework of possible phenomena."¹¹⁹ This sounds rather like Duchamp's "Le hasard en conserve," perhaps misleadingly translated into English as "canned chance." From an even broader perspective, Chance is a truly awesome power, one making all possible combinations within Matter, one which passes on all possibilities to an individual, and all essences, to existence itself. "Chance," states Revel, "is the power which makes all possibles pass into being, which makes all essences come into existence, and this is due to the number of combinations which favors them, the possibles and the essences, that [potentially] lie within matter."¹²⁰ These were his final conclusions. Revel, however, begins his lengthy discussions by affirming that "la loi du Hasard" does indeed have "une application à la métaphysique," namely that it demonstrates "le passage du premier monde au second," and so neither are, after all, "séparé par un abîme."¹²¹

Revel, like many of the more esoteric students of the Fourth Dimension, also discusses "rotation," but only as it relates to the chance (lucky or unlucky) falls of a coin, heads or tails, "et c'est le Hasard qui l'a fait tomber pile ou face."¹²² One of his axioms concerning such spins of coined fate is that "tous les cas possibles tendent à être manifestés et tendent à être répétés un nombre égal de fois." For him, this spin represents yet another apparition of the old esoteric concept of the *coniunctio oppositorum*, "The World is a Synthesis of Opposites." "Chance, we shall say, is the province of all phenomena; it represents the radical purpose of the deed. Chance, we shall state, is the active God of Things."¹²³ Moreover, according to Revel, the Law of

Chance should manifest itself in two ways: "1. Possibilities in an indefinite number tend to be manifested; 2. A possible cannot be equal to any other possibility; but among possibles there can be a difference smaller than any appreciable difference." His conclusion was that, "since the Law of Chance is the expression of the tendency of all possibles, it must be believed that the greater the number of manifested possibles, all the more shall the analogy approach the state of equality."¹²⁴

One apparent counterpart to all this wonderfully esoteric psychobabble is Duchamp's statement—labeled "Possible" and appearing in Note 37, dated 1913¹²⁵—that one is really dealing with the "figuration of a possible" leading to a "burning" and "vitriolic" aesthetic fusion or synthesis: "La figuration d'un possible / (pas comme contraire d'impossible / ni comme relatif à probable / ni comme subordonné à vraisemblable) / Le possible est seulement / un "mordant" physique (genre vitriol) / brûlant toute esthétique ou callistique." Duchamp's other brief mention of the "possibles" appears in Note 124, with an algebraic "comparison," also including certain formulas of the simple "A-over-B" type. A likely model for such formularized speculations is found in Revel's discussion "Des Ordres des Possibles," where a number of such superimposed equalities are given, and all are treated as examples of the traditionally hermetic "De Arte combinaria." As Revel also states here, "besides the possibles of form, evidently the possibles of speeds [*vitesses*] should also be added."¹²⁶ Revel's much broader conclusions are that "Chance will serve us as a guide within a theory tempting us into the domain of metaphysics." In this case, the real metaphysical conclusion is wholly esoteric: "le Monde est un système lié," and once again the World is seen to be "tied together" by a series of otherwise wholly hidden, stoppagelike Correspondences. Accordingly, even "in the successive plays of any sort of game of chance, one really finds oneself in the presence of linked and correlative phenomena." These represent to Revel, and exactly according to a term (*type d'échecs*) prominently used by Duchamp, the "jeux conjugués."¹²⁷

Revel even has a theory of art and, given the date of publication of his treatise, 1905, we are scarcely surprised to find that it is wholly Symbolist, or "synthetic," a term which the author uses to represent "l'Unité synthétique des deux facteurs de l'opposition." As he also states, "the secret of beauty in art lies in the multiple representation of characters in opposition which become united without neutralizing themselves. Any work of art which does not tend towards *la forme synthétique* is without interest."¹²⁸ And this aesthetic observation—also seemingly generally applicable to Duchamp's art of oppositions alluding to Revel's "*principe de conservation*" (as "canned chance")—immediately leads Revel to a compulsory conclusion, to reaffirm again the contemporary value of *l'Alchimie*. For Revel, Alchemy is a pseudoscience, holding ever so much promise for the future, which best represents the ultimate "Synthesis." "At last," he exclaims, "Alchemy once

again appears upon the scene—*Enfin l'Alchimie va rentrer en scène!*” His optimism is clear:

Declarations made by the Alchemists, so long treated as mere follies, surely shall be shortly verified within a certain future moment, one which is even closer to us than we might imagine. The possibility of a transmutation of metals, an idea long since rejected by certain academics, shall embody the consequences of a grand synthesis which one now perceives to be coming along in the wake of recent discoveries made in the fields of physics and chemistry.¹²⁹

And evidently in the field of art also.

So, once again we find Alchemy directly linked to the Fourth Dimension, even Chance as well—and all this in a book that we *know* Duchamp actually owned. And that is just the kind of documentation, “proof,” that would delight any dogged D.A. Or, speaking merely as a scholar, these kinds of clearly useful revelations additionally demonstrate the essential evidential value of primary documents for any professionally trained art historian. While this observation must seem an overly obvious point to all those scholars who daily manipulate obscure textual materials dating from the *premodern* periods (classical to medieval, Renaissance to Romanticism), at times one wonders about the methodologies employed by those who only choose to cope with the obligatory obscurities of *modern* art. As our recent readings in these laboriously retrieved, repetitious, and tediously written *fin de siècle* texts do additionally prove, such conventional investigative methodology—meaning tediously materialistic *Kunstwissenschaft* (“art-science”)—is absolutely essential for the interpretation of modern art. Without knowledge of those essential texts, our explanations of the modernist impulse remain as convincing (or dematerialized) as occultist speculations about life on the Astral Plane. And when “art-science” fails (as most oxymorons do), then one must turn instead to forensic science: *Ars sine scientia nihil est*.

Although many other minor details found in Revel’s treatise are of passing interest, for the broader conclusions we turn to our esoteric author’s concluding “Essai d’une synthèse générale.”¹³⁰ Here we are informed (and in a way no professional mathematician would be likely to state) that the Law of Chance really represents “la loi universelle, la parole indirecte de l’Absolu.” According to Revel, another, parallel, spaceless, and timeless world may be forthcoming: “L’Absolut pourrait créer un Monde d’une autre nature que le nôtre; par exemple, un Monde qui serait étranger à l’Espace et au Temps.” Even though our “World is a world of oppositions, of which Chance represents the manifested law of all phenomena, the Absolute does possess an inexhaustible reservoir of oppositions, of which only a very few conform to the nature of our own world.”¹³¹ The end result for Revel, rather grand and just a bit bizarre, is that: “The universal synthesis of ALL SYSTEMS is proclaimed to be the result of the manifestation of all the possibles.”¹³²

Following this detailed examination of what appear to have been Duchamp's published sources for his notoriously obscure researches into the esoteric Fourth Dimension and the esoteric Laws of Chance, one overall conclusion becomes inevitable. There were both very broad general contexts and, additionally, many specific links existing between all the diverse artistic and literary remains of Marcel Duchamp. This essential linkage, the kind which "proclaims the universal synthesis of ALL THE SYSTEMS" present in Duchamp's art and thought, can be none other than the rich, nearly inexhaustible diversity of the Esoteric Tradition. No other philosophical system current in Duchamp's youth similarly explains the conjunction of all these disparate themes and motifs, the very ones that every informed scholar does admit that Duchamp was to reiterate throughout his lengthy, fugitive career as an artist like none other in his century.

the circle closes, 1923–1968

Given the variety and weigh of the evidence already assembled, clearly the artwork of Marcel Duchamp, at least until 1923, the year of an apparently definitive abandonment of the *Large Glass* project, was consistently conceived using the rich variety of themes and motifs endlessly discussed in writings stemming from the Esoteric Tradition. A complementary case has just been made that, besides Alchemy (an obvious esoteric candidate), additionally such coexisting, typically Duchampian topics as *le Hasard* and *la Quatrième Dimension* should presently be recognized to have similar roots in the splendidly polymorphous Esoteric Tradition.

After 1923, however, the evidence for Duchamp's strict adherence to topical materials exclusively drawn from the Esoteric Tradition is, admittedly, much more nebulous, and thus difficult to establish in an irrefutable manner. The clear pattern before 1923—rampant esotericism—seems thereafter to become dormant or to go underground, to become something like a disguised leitmotif. As Calvin Tomkins recognizes, after 1923, “Duchamp himself, empty of ideas, was approaching an impasse in his work and life.”¹ But does this mean that, after the early 1920s, Marcel Duchamp had completely abandoned his fascination with some very particularized iconographic elements drawn from the Esoteric Tradition? As it appears, the answer is “No.” As will now be revealed, an unquestionably esoteric tone manifests itself generally in works diversely executed by Duchamp between 1923 and 1968. More to the point, in this chapter it will be demonstrated that his last opus magnum—the tableau called *Etant donnés . . .* (figs. 25, 26), twenty years in execution, but fifty or more in conception—was thoroughly alchemical in character and, moreover, that its hermetic mise-en-scène was complemented by a latent fourth-dimensional subtext.² But first we may examine some of the most characteristic visible activities associated with Duchamp during the fallow period immediately following 1923: chess, disks, and doors.

As everybody has recognized, chess was an essential expression of the Duchampian public persona.³ It ordered many of the externals of his lifestyle, and some have even thought that, at times, chess shaped the actual course of the man's life. Man Ray even went so far as to ascribe the breakup of Duchamp's first marriage to the artist's obsession with his meticulously executed endgames, which so piqued his wife that once, "during the night, Lydie had arisen and glued down all his chess-pieces!" Thereafter, "he kept his studio and slept there, while Lydie stayed with her family. . . . A few months later, Duchamp and Lydie divorced, and he returned to the States."⁴ Duchamp made no mention of his marital chess problems when he recalled how

We were married the way one is usually married, but it didn't take because I saw that marriage was as boring as anything else. I was really much more of a bachelor [*plus célibataire*] than I thought. So, after six months, my wife very kindly agreed to a divorce. Having no child, she asked for no alimony, so it happened as simply as possible. Then she remarried and did have children.⁵

As a chess player, Duchamp became a master of the endgame. In fact, in Paris, in 1932, he even published a co-authored book with Vitaly Halberstadt on the subject with an odd title: *L'Opposition et les cases conjuguées sont reconciliées*.⁶ In English, this broadly signifies that "opposition" has ceased for there has been brought about an opportune "reconciliation of conjoined elements." As we already know, the exact hermetic verbal equivalent is even more concise: *coniunctio oppositorum*. Henri-Pierre Roché later revealed the presence of an autobiographical, and almost allegorical aspect to his friend's obscurely ritualistic treatise; as he put it,

At the end of the game, when there is scarcely anything left on the board, a situation arises where the winning of the match depends upon the fact that the King either can, or cannot, occupy a square opposite to, and at a given distance from the opponent's King. But, at certain moments, the King has a choice between two movements and he can then give the appearance of taking no further interest in the thing at hand. Upon which point, the other King, if he himself is also a grand monarch, can also make himself appear to take even less interest. And so on and so forth. The two sovereigns can thus make a solitary and negligent promenade across the entire board, appearing completely care-free and far removed from their war. Nevertheless, there are certain rules for each of their steps, and the slightest blunder proves instantly lethal. One must push the other player into committing the blunder and to keep it in one's head all the time. These are the rules which Duchamp has revealed [in his treatise]; squares which are free [*cases permises*] versus the impassible ones [*cases défendues*], all of which serve to expand the range of the disdainful promenades of the Kings.⁷

Now it becomes abundantly clear that Duchamp was actually committed to an artistic, even allegorical interpretation of his lifelong preoccupation with chess. In a more specific sense, he also envisioned a potential relationship between chess and gambling. The key factor, the essential link between one and the other, was Chance, *le hasard*; as he explained to Arturo Schwarz, “in both cases, it is a fight between two human beings, and by introducing more chance in chess and, by reducing the chance-factor in gambling, the two activities could meet somehow.”⁸ An anonymous reviewer of the Haute-Normandie Chess Tournament of 1924, in which Duchamp took first place, observed how “M. Duchamp has well merited his title in consideration of his deep and solid playing, his impenetrable coolness, his ingenious style, and the impeccable way with which he exploits the slightest advantage; these factors make him always a formidable opponent.”⁹ A chess-playing companion of Duchamp’s in the same period, François Le Lionnais, wrote in 1976 that

Duchamp triumphed over his adversaries in a perfectly academic manner quite comparable to a classic French master’s theses: introduction, three-part development, conclusion. . . . His face was always calm, at the very most slightly oscillating between the severe impassibility of a Redskin, with a tinge of banter or perhaps malice, and an attentive and sympathetic (sometimes with a smile) grasp of the action.¹⁰

Chess for Duchamp was very much both a function and an expression of Art, and he made various statements to this effect.¹¹ In conversation with Truman Capote, Duchamp once explained that “a chess game is very plastic. You construct it. It’s mechanical sculpture, and with chess one creates beautiful problems, and that beauty is made with the head and hands.” He said much the same thing to Lawrence Gold: “chess is a mechanistic sculpture that presents exciting plastic values. If you know the game you can feel that the Bishop is a lever: it incites a whole new pattern when moved.” In 1952, at the annual banquet of the New York Chess Association he articulated, with a certain graphic grandeur and in some detail, his assimilation of chess into art, or vice versa:

Objectively, a game of chess looks very much like a pen-and-ink drawing, with the difference, however, that the chess-player “paints” with the black-and-white forms already prepared—instead of inventing forms as does the artist. The design thus formed on the chess-board has apparently no visual esthetic value, and is so more like a score for music which can be played again and again. Beauty in chess does not seem to be a visual experience, as in painting. Instead, beauty in chess is closer to beauty in poetry. The chess-pieces are the block alphabet which shapes thoughts; and these thoughts, although making a visual design on the chess-board, express their beauty abstractly—like a poem. Actually, I believe that every chess-player experiences a mixture of two esthetic

pleasures: the first is the abstract image, akin to the poetic idea of writings; second is the sensuous pleasure of the ideographic execution of that image on the chessboard. From my close contact with artists and chess players, I have come to the personal conclusion that, while all artists are not chess players, all chess players are artists.

On yet another occasion, Duchamp took pains to stress the values of mental and visual precision, ritual, repetition, calculation, cerebration, struggle, and foresight; all these virtues were associated by him with chess. As he then remarked, above all a well-wrought chess match is endowed with a kind of profitless or disinterested spiritual purity; perhaps somewhat curiously, for him the highly stylized board game was, besides “tactical and strategical,” “artistic,” “visual,” “combinatory,” “a struggle,” “violent,” “transformational,” “mental,” “pure,” “geometric,” even “like religion.” In his opinion, the *ars combinatoria* of chess is

purser, socially, than painting, for you can't make money out of chess [and] chess has no social destination. . . . There is a mental end implied when you look at the formation of the pieces on the board. The transformation of the visual aspect to the grey-matter is what always happens in chess and it is what *should* happen in art. . . . Imagining the movement or the move is what produces beauty in these cases. . . . Chess is a sport. A violent sport. This detracts from its most artistic connections. Of course, one intriguing aspect of the game, that does imply artistic connotations, is the actual geometric patterns and variations of the actual setup of the pieces and in combinatory, tactical, strategical and positional sense. It's a sad expression though—something like religious art—it's not very gay. If it's anything, it's a struggle.

For a broader interpretation of an esoteric significance possibly to be attached to the chess experience, we may turn to a devoted confidante and biographer, Arturo Schwarz. Reviewing Duchamp's statements, as quoted above, he observes that:

We are thus placed before the esoteric dimension that the game has had for Duchamp—a dimension that must have had a great appeal for him. In fact, the beauty of chess is not only accessible to the initiated, but the initiated are promised the destiny of having [as Duchamp said] “to live a monk-like existence, and to more rejection than any artist ever has, struggling to be known and accepted.” . . . *The time factor is as important in chess as it is in alchemy or in esoteric writings.* In Alchemy, the problem of obtaining the Philosopher's Stone boils down to finding the means of accelerating [metallic] lead's natural evolutionary rate. The Alchemist is convinced that if lead is given the proper time, it will eventually “ripen” into gold. Most esoteric teachings are again concerned with Time since the [occultist] Doctrine aims at showing the way to an infinite duration

of human life. Chess may then be envisioned as a secular projection, on the ludic plane, of the mythical contests and of the sacred games recurring in esoteric writings. *Chess, as an art, which is at the same time a game for initiates, provides the perfect metaphorical model for Duchamp's life and works.*¹²

In this instance, we may believe that for once Arturo Schwarz was right on the mark; indeed, as he chose to practice it, chess “provides the perfect metaphorical model for Duchamp’s life and works.”

Duchamp’s self-described, monkish devotion to the “disinterested,” or nonenumerative values of the pseudoreligion of chessplaying—“you can’t make money out of chess”—provides the essential connection to an emerging concept of spiritual commitment, a kind of secularized priestly vocation, that inspires the true Artist in the broadest possible sense. In his own mind, Duchamp must have represented that true Artist, for he abundantly demonstrated that sense of disinterested vocation in nearly every word and deed. Such at least was his public persona. In numerous statements, he did affirm that the modern artist should renounce all worldly or materialist ambitions. Hunger for profit, he indicates, only debases Art. As his own solitary procedures demonstrate, in order to maintain its otherworldly purity, Art must be slowly developed, evolved, in painstaking and precise steps or stages. These enigmatic procedures are to be extended over long periods of time and, if at all possible, they should additionally be carried out in near total secrecy. These conclusions are amply borne out by what Duchamp said, and by what he actually did—and he did frequently speak and act in exactly that way.

Perhaps for the prosecution of the case of Duchamp as Alchemist of the Avant-Garde there is yet another hermetic explanation of chess that should also be considered, even though it was even missed by Schwarz, himself a notoriously enthusiastic champion of the alchemical thesis. Most simply put, chess is a game, or in French, “*un jeu*.” Following hermetic convention, Pernetý’s *Dictionnaire Mytho-Hermétique* also spoke of the strictly alchemical significance of *le jeu, les jeux*, also explicitly relating such apparent diversions to the serious business of “the operations of this Art,” meaning the strictly hermetic artistic endeavor. As the alchemical lexicographer explained, there is a certain “Children’s Game,” and

The [Alchemical] Philosophers have given this name [*Jeu d'Enfants*, or *Ludus Puerorum*] to the working of the Stone following the preparation of Mercury, and this is because Nature has then done nearly all the work and now it is only necessary to tend the fire; nonetheless, that too must done, painstakingly and with patience, according to set rules. . . . Hermetic Philosophers assert that these Games, and many other games of which we make no mention [including chess], were all begun in view of the Great Work and of all that which transpires during the operations of this Art.¹³

For Duchamp, *les opérations de cet Art* (as Pernety put it) should more-over not be a matter of the hands, or even of the eye; they must become an endeavor of the questioning mind. In the end, Duchamp confessed that what he had become was not an “artist”; by implication, he was instead a kind of skeptical philosopher, one who used art as an incidental means to a given end, the expression of certain, typically unstated “ideas.” As he once explained his position to Calvin Tomkins,

Doubling everything, I had to find something that had not existed before, something that I had not thought of before [i.e., as “art”]. Any idea that came to me, the thing would be to turn it around, and to try to see it with another set of senses. I am not [in this case] so interested in “art” per se. It’s only one occupation, and it hasn’t been my whole life, far from it. You see, I’ve decided that art is a habit-forming drug. . . . People always speak of it with this great, religious reverence, but why should it be so revered? . . . After thirty or forty years, the painting dies, loses its aura, its emanation, or whatever you want to call it. And then it is either forgotten, or else it enters into the purgatory of art history.

As also seems necessary for anyone trying to make any real sense out of a probably excessively lionized artistic career, Duchamp likewise reveals himself to be a skeptic: “I’m afraid I’m an agnostic in art. I just don’t believe in it with all the mystical trimmings . . . as a religion, it’s not even as good as God.”¹⁴ (*D’accord, dis-je.*)

Nonetheless, some of Duchamp’s closest friends (none evidently very skeptical) actually did perceive his actual lifestyle as representing something close to “religion,” even including “all the mystical trimmings.” In this case, an important witness for the prosecution is the novelist Henri-Pierre Roché, later to publish the popular *Jules et Jim*. Much earlier, during the period of the Great War, he was perhaps Duchamp’s closest friend in New York. Roché dubbed his soulmate “Victor,” and assigned to him the “Invention of the Ten New Commandments” (actually eighteen by my count). As recorded much later by Roché, “les principes de Victor (Duchamp),” representing a kind of Decalogue of the Avant-Garde, consisted of the following ethical principles:

1. Thou shalt properly smother all jealousy within thy heart;
2. Thou shalt be fair in spirit and will not desire to possess material things;
3. Thou shalt always be generous in word and deed;
4. Thou shalt avoid falsehood like the very plague;
5. Thou shalt be lavish in tenderness, following the direct commands of thy heart;
6. Thou shalt guard the better part of thy time strictly for the work of thy imagination;
7. Thou shalt explain thy point of view above all with clarity;
8. Thou shalt keep and give of thy liberty in equal measure;
9. Thou shalt practise an incorruptible candor, which is the first duty of lovers;
10. Thou shalt preserve thy solitude faithfully according to thy needs;
11. Thou shalt

never have children, as they shall heavily weigh upon thee; 12. Thou shalt carefully choose your way forward and then hew strictly to it; 13. Thou shalt flee from all virgins, as initiating them shall constitute an evil deed; 14. Thou shalt not acquire habits which will surely kill affection; 15. Thou shalt not either promise nor demand fidelity; 16. Thou shalt daily practise meditation in absolute solitude; 17. Thou shalt wisely protect thy time and that of others; 18. Thou shalt piously care for thy labors, and for thyself alone.¹⁵

There is yet another way of designating this quasi-anchorite lifestyle practiced so notoriously by Marcel Duchamp, a dedicated soul described by his intimates as an exemplar of “profitless or disinterested spiritual purity,” an “initiate” who described his own commitment to a highly stylized board game as “pure,” even “like religion,” even including its own “Invention of the Ten New Commandments.” That other way is alchemical. In this instance we may base our interpretation upon some solid historical documentation.

Earlier, in chapters 2 and 3, we quoted from a Symbolist-era publication that described in some detail just how a contemporary Frenchman could set about to become an Alchemist. The remarks given in Ferdinand Jollivet-Castelot’s *Comment on devient Alchimiste* (1897) may be again cited, for they seem to establish a cogent role model, such as was just described by Duchamp’s friends, for his marvelously tranquil and dedicated, even otherworldly, lifestyle. According to Jollivet-Castelot, the Alchemist’s “operations are always done with complete propriety and in perfect order. The hermetic exercises shall be conducted by him with method, either according to the meaning of the texts consulted or following one’s personal inspiration.” Likewise, and just as we know Duchamp actually did do, “the Alchemist shall instigate poetic reflections and artistic sensations.” Duchamp’s intimates even take pains to describe him as a frugal diner; likewise, Jollivet-Castelot recommends similar gastronomical frugality for his would-be *Alchimiste*: “Dinner may be in certain abundance—except when it is desirable instead to conjure up certain experiences of a lucid or magical sort. For these purposes, nocturnal tranquility is especially recommended.” Duchamp, as we all know, was both an eager pipe and cigar smoker, and likewise an eager writer of hermetically obscure Notes. Most likely, here he had in mind yet another prescription recited by Jollivet-Castelot: “After dinner, and after consumption of tobacco, the Alchemist resolutely sets about the work of lengthy composition, that is, should one be a *hermétiste écrivain*.”

For the most part, Duchamp led a decorous lifestyle, avoiding mundane commercial entertainments; so, likewise, did Jollivet-Castelot’s dedicated Alchemist, for he, likewise, “must not abuse either the theater or the world: intellectual dissipation would be the inevitable result. In every case, the Alchemist is never to forget his role as a guardian of the Occult Tradition.

He should never engage in noisy set-tos, nor will he stir up arguments about those articles of faith pertaining to the domain of the Profane.” Whatever his real beliefs, so we are told by Duchamp’s many admiring intimates, he never forced them upon anybody; indeed his inevitable decision was instead to exercise discretion and moderation. This, too, is completely in accordance with Jollivet-Castelot’s recommendations to his Alchemist: “Should the occasion arise, he should then affirm his opinions and beliefs, and he will then maintain these with conviction. However, he shall never depart from the most exquisite politeness and the greatest possible tolerance. The Adept is liberal-minded. Likewise, he continuously shows himself to be friendly and open with others—but he is always reserved in his manner.”¹⁶

And there you have it: a historical, published role model for the wonderfully decorous and monklike lifestyle so uniquely associated with Marcel Duchamp. Certainly nothing like it was ever to be associated with the notoriously macho and boozing, so-called American “Action Painters.” Perhaps ironically, as is however only fitting in any proper discussion of Marcel Duchamp, he was to become opportunely resurrected by mostly Anglo-Saxon postmodernist art critics and theorists as an emblematic figure standing for the very antithesis of *everything* those Abstract Expressionists were thought, likewise emblematically, to represent, including painterly and emotional excess, machismo, and alcoholism.¹⁷ But all that mythmaking lay in a still distant, mostly unforeseeable, postmodernist future.¹⁸

As it appears, however, it was Duchamp himself who consciously started the myth, with all due deliberation and evidently as early as 1914; in this case, the most appropriate term is “self-promotion.”¹⁹ The solid, physical evidence that he did seek fame—that is “celebrity,” from the Latin *celebritas*, meaning “publicity” as much as “the multitude”—is provided in his self-publications: *La Boîte de 1914*, *La Boîte Verte* (1934), *La Boîte-en-Valise* (1936), and *La Boîte Blanche* (1967), among other carefully contrived mementos (see MD-90, 143, 145, 170). Fame, when consciously sought, represents a kind of manufactured immortality; its effects are designed to work posthumously, and so their manufacturer figuratively does not die. In any event, another physical fact is the inscription composed by Duchamp and ordered to be chisled into his headstone: *D’ailleurs, c’est toujours les autres qui meurent*. As Duchamp wished to be remembered (literally), “Anyway, it’s always the other ones who die.” Enshrined in the figurative Large Glass of art-historical fame, Duchamp does live on, past the grave and its lapidary “inscription-motto,” perhaps forever.

Nonetheless, chess, art collecting, and the covert creation of a personal legend most certainly did not represent the totality of Duchamp’s discretely pursued, post-*Large Glass* activities. There were even some physical products, the kind you could call “art.” Early in 1924, at the suggestion of André Breton, Marcel received a six-thousand franc commission from the couturier

Jacques Doucet. The decidedly unique result was a *Rotative Demi-Sphère (Optique de Précision)*.²⁰ Completed sometime in 1925, this object (MD-137) turns out to be a motorized optical device with a white demi-sphere painted with black eccentric circles and fixed upon a flat disk covered with black velvet. On the outer edge of the copper ring there is engraved an onomatopoetic and nearly nonsensical, quasi-emblematic inscription: “Rose Sélavy et moi esquivons les ecchymoses des esquimaux aux mots exquis.” Translated into a rough English equivalent, the result is that: “Éros, c’est la vie, and me, we [both] are dodging the subcutaneous hemorrhages of the exquisitely worded Eskimos.”

When this gratuitously titled machinery is set into rotary motion, the striped and displaced circles appear to undulate. This movement produces a hypnotic illusion of pulsating depth, or what Robert Lebel poetically called “a screen for suggestive metamorphosis.”²¹ Fascinated by this quirky optical experiment, Duchamp (especially in 1926) created a number of substitute disks decorated with either spiral-linear and colored patterns, many of which included similarly inscribed onomatopoetically, pseudo-emblematic patterns (see MD-125, MD-126, MD-135, MD-139).²² These motorized illusionistic doodles continued in production, culminating eventually in 1935, with the editions of some 1500, flat cardboard disks, collectively called the *Rotoreliefs* (MD-144).²³ Another approach in this direction of rotary symbolism was represented in the 1926 film *Anemic Cinema* (MD-140), where spirals alternate with puns inscribed within slowly turning disks.²⁴

According to the opinion of Robert Lebel, “morphologically, it [the rotative corpus] is a part of a new trend in abstract art. . . . For Duchamp himself it was a kind of conclusion and termination of a prolonged search.”²⁵ What most fascinated Man Ray about this prolonged circular optical series was what he called in effect Duchamp’s “pseudoscience.” Accordingly, he was particularly struck by

the meticulous application of Duchamp in the realization of these contraptions—it was not any love of mechanics on his part, but it was necessary to master the material to make his desires concrete. It seemed to me that he was working in an opposite direction to the scientists with their grandiose ideas, which have their origin in atoms and molecules. Duchamp seemed to be trying to reduce all human striving to a self-sufficient entity—something that cannot and need not be justified. He might have taken advantage of the legend that surrounded him, [might have] tried to do something in the art world that would have brought him comfortable material returns, but he avoided this [temptation] with persistence.²⁶

Nonetheless, on just the evidence of some formal analogies, we might instead find a generalized iconographic source for the format for all such ambiguously

inscribed disks in a once commonplace mode of alchemical figuration (see fig. 6), all of which did in fact have as their thematic basis a pseudoscientific investigation of atoms and molecules.

In turn, Robert Lebel, another very close acquaintance of Duchamp, has rendered what is probably the best overall summation of the total significance of the endlessly enigmatic artist's "meta-optical," and therefore for him similarly pseudoscientific, obsessions. As described by Lebel,

His philosophy, to be sure, was merely that of a pseudo-scientist, and his machines, if we may say so, were only mechanisms of the mind. Consequently, they expressed his rejection of the [orthodox] scientific spirit because it imposes mechanization in the field of affecting relations. By rendering the absolutism of Science absurd, Duchamp's gadgets still belong with the Romantic repudiation of the implacable "prosaism" of progress. . . . If we were not aware of his typical ambivalence, of his hatred of the past mixed with nostalgia, of his aversion toward a future which, at the same time, he hopes will be the coming liberation, we would risk misunderstanding the real significance of his stoic irony in which the coordination of the incompatibles [which is merely another way of saying *coniunctio oppositorum*] is realized to a degree rarely obtained.²⁷

Lebel is absolutely correct in ascribing a largely symbolic rather than wholly formal value to Duchamp's optical gadgets. This meaning, paralleling (as Lebel implies) the conventional *coniunctio oppositorum* of the Hermeticists, is therefore clearly one which transcends the making of art in the commonly accepted sense. Indeed, as Lebel also assumes, these works represent *in toto* a kind of renunciation of the material benefits of the world. As Man Ray further reveals, during this period Duchamp declared

the conviction that what he would produce would be something incomprehensible to the average mind. . . . Duchamp certainly had a profound contempt for other's opinions of his work. He could [however] be more tolerant of a certain snobbism on the part of those who professed to understand him. On the rare occasion when he did express some ideas on art, it was in the most impersonal manner, as if he himself was not involved. Pride and humility [for Duchamp] went hand in hand.²⁸

The same prescription applied to Jollivet's *Alchimiste*.

One can actually trace the origins of these circular manifestations, which really do represent "something incomprehensible to the average mind," further back in time in Duchamp's career, in fact to the *Roue de Bicyclette* (MD-87). However, the earliest of all the objects in Duchamp's extended series of rotary depictions is the small (thirteen by five inch) oil painting on a cardboard panel known as the *Coffee Grinder* (MD-61).²⁹ Late in 1911,

Marcel's older brother, Raymond Duchamp-Villon, had asked his acquaintances to make some decorations for his kitchen—and his younger brother's contribution was this frenetic little machine. About it, Marcel had only, typically blandly, said that "I used the mechanism as a description of what happens. You see the handle turning, the coffee as it is ground—all the possibilities of that machine." Perhaps there was more to this miniscule *Moulin à café* after all. Much later, in 1945, the New York art collectors Harriet and Sidney Janis interviewed Duchamp; the conclusion they mutually reached was that "Duchamp regards the *Coffee Grinder* as the key picture to his complete work. Looking back through the structure of his achievement, the [later] elements, constantly in one degree of complexity or another, are [initially] present in simple form in the *Coffee Grinder*, [namely] movement and the magic of mechanics, and the inimitable flair for pointed irony."³⁰

Duchamp's first strictly motorized optical device was the *Rotative Plaque Verre (Optique de Précision)* of 1920 (MD-125).³¹ In effect, this object represents a mechanized "Small Glass," and this he constructed with the help of Man Ray. As Man Ray later recalled, Duchamp's initial venture into mechanized optics was nearly lethal. During the operation they were both nearly decapitated by their mechanical offspring:

There was a great whining noise, and suddenly the belt flew off the motor or axle, and caught in the glass plates like a lasso. There was a crash like an explosion, with glass flying in all directions. I felt something hit the top of my head, but it was [only] a glancing blow, and my hair had cushioned the shock. . . . He ordered new panels, and with the patience and obstinacy of a spider re-weaving its web, he repainted and rebuilt the machine.³²

Duchamp also recalled this incident in his interviews with Pierre Cabanne:

We just missed being seriously hurt. We had an idiotic motor which picked up speed rapidly—you couldn't control it—it broke one of the glass plates, which flew into pieces. We had to start all over. Four [actually six] years later, I did the same thing for Jacques Doucet, a half-sphere with spirals which took off from the same idea. I even did some research on optics, [patterns] which disappeared, black and white lines—I don't know what they were supposed to do exactly. I can't explain it to you [but] the idea of [circular] movement was what preoccupied me.³³

With reference to later, but related projects dealing with even more rotating optical machinery, Duchamp stated that, by then,

I felt small attraction toward the optic. Without ever calling it that. I made a little thing that turned, that visually gave a corkscrew effect, and

this attracted me; it was amusing. At first I made it with spirals; not even spirals—they were off-center circles which, inscribed one inside the other, formed a spiral, but not in the geometric sense, rather in the visual effect. I was busy with that from 1921 to 1925. . . . What interested me most was that it was a [pseudo-] scientific phenomenon which existed in another way than when I found it. . . . At that moment, my experiments interested a few specialists. Me, it amused me. . . .but it's something you can't do for fifteen, or even ten years. After a while, it's finished. . . . Only in 1934, *then* it was finished.³⁴

If we may grant, according to Duchamp's own interpretation, that the core idea behind these ambiguously spinning, inscribed devices was really the overall theme of emblematic circular motion, then it becomes clear that Duchamp's notion was actually a much older preoccupation with him. In this case, the original free standing prototype for all the later rotative projects was unmistakably the nonmotorized *Bicycle Wheel* (MD-87), first assembled in Neuilly in 1913 and, subsequently, refabricated in New York in 1916. Considered collectively, these many manifestations of circular motion obviously had an obsessive, and therefore probably symbolic, significance for the artist, most likely wholly alchemical (see chapters 3, 4, 5). In any event, by his own admission Duchamp felt only "a small attraction toward the optic" (or "retinal," as he said on other occasions). Arturo Schwarz, Duchamp's friend, collaborator, biographer and art dealer, was right on the interpretive mark when he observed that, in general terms, "a turning wheel has always been an esoteric symbol."³⁵

One such esoteric symbol, still very much with us and also set into motion by a handle or crank, is "The Wheel of Fortune," the movement of which is considered fateful for being irreversible. The broader symbolic meanings traditionally attached to practically *any* wheels or disks and their circular movements are, of course, described by many, many authors writing on the Esoteric Tradition. One modern student of esoterica was a Spaniard, J. E. Cirlot, who was, additionally, a leading theoretician of the *Dau al Set* ("Seven-Spot Dice") school of Surrealist artists in Barcelona. Cirlot refers to the Wheel of Fortune motif in a modern esoteric context, namely, "the tenth enigma of the Tarot pack, an allegory which turns on the general symbolism of the wheel and expresses the equilibrium of the contrary forces of traction and expression—the principle of polarity."³⁶ According to a French specialist in Tarot card symbolism, for true believers a certain card called the *La Roue de Fortune*

represents the last moral test that the Fool [*le Fou*] has to pass before he embarks upon his real ordeal [and] in this instance he is portrayed in the guise of King Midas [who] barely escaped with his life as a consequence of opting for the fatal gift of turning everything he touched to gold. The Wheel of Fortune symbolizes [in a Tarot context] the progress of the

initiate from babyhood through mundane schooling, to where he is caught up in the revolution of Fate's spinning-wheel. Like Midas, the Initiate is advised to "be prudent." . . . He has reached the nadir of the wheel's revolution—the devil's gold has changed to dust. He has experienced the tyranny of the senses and the transience of Fortune.³⁷

It is the announced task of this monograph to show in a credible fashion that: (1.) Duchamp certainly was involved with the Esoteric Tradition, which does now frequently prove to be the source of certain staples in his iconographic repertoire; (2.) Indeed, Duchamp was most interested in a certain, very clearly delimited region of general Esoterica, namely Alchemy. Therefore, within the context of some circular arguments immediately confronting us, it is most interesting to observe how Arturo Schwarz had also related Duchamp's ubiquitous rotary devices to specifically hermetic symbolism. As he correctly observes, "the circle is one of the oldest symbols of the 'reconciliation of opposites,'"³⁸ or *coniunctio oppositorum*. For a more extended, but still wholly conventional and strictly modernist explanation of the conventional esoteric symbolism of rotating disks or wheels operating within a strictly hermetic context, we may again turn to Cirlot. His summary of the common esoteric interpretation, à la Pernetz, reads as follows:

In any case, the allusion [in alchemical wheels: see fig. 6] is, in the last resort, to the splitting up of the world-order into two essentially different factors: rotary movement and immobility—or the perimeter of the wheel and its still center, an image of the Aristotelian "unmoved mover." This motif becomes an obsessive theme in mythic thinking, and in alchemy it takes the form of the contrast between the "volatile" (moving and therefore transitory) and the "fixed." . . . In alchemy, there are numerous symbolic representations of the wheel, denoting the circulatory process: the ascending period (*ascensus*) is shown on one side, the descending (*descensus*) on the other. These alchemic stages are also represented as [for instance] birds, soaring heavenwards or swooping down to earth, denoting sublimation and condensation, in turn corresponding to evolution and involution, or spiritual progress and regression.³⁹

Although somewhat less obsessional in scope than Duchamp's evidently esoterically significant rotations, another repetitive theme of the period of the 1920s is the one we might choose to call the "blocked window" motif. This idea in turn immediately leads to a complementary idea we might call "the door of perception (or nonperception)." These postwar objects all appear to work within a referential framework of allusions to the *Large Glass*. There is, however, a twist; in these examples, the view through or into each object is thwarted. In the broadest sense, vision or perception is blocked or frustrated.

The blocked window motif first appears in Duchamp's oeuvre in 1920, in a thirty-inch tall object that is itself a miniature *French Window* (MD-124) that verbally becomes oddly transmuted into the *Fresh Widow*.⁴⁰ The piece in question (*pièce duchampienne de résistance visuelle*) is boldly inscribed across its sill in black, press-type letters: FRESH WIDOW COPYRIGHT ROSE SÉLAVY 1920. The result is that, manifesto-like, this is the first artwork produced by Duchamp's recently acquired *nom de plume* (*pour la plupart*), "Rose Sélav," itself the sign of an androgyne (a point already addressed in some detail in its strictly alchemical possibilities in chapters 5, 6). Since the now lost original work once belonged to Katherine Dreier, it may even be supposed that she had commissioned the mysterious apparition. Duchamp's matter-of-fact explanation, of course, admits of no esoteric connotations: "This small model of a French window was made by a carpenter in New York in 1920. To complete it, I replaced the glass panes by panes made of [black] leather, which I insisted should be shined every day, like shoes. French window was called 'Fresh Widow,' an obvious enough pun."⁴¹

Are we really only to believe that Duchamp's elaborately crafted piece is little more than an overly elaborate, three-dimensional pun? Is the only purpose of Duchamp's *Fresh Widow* idle amusement? If we take him at his cryptic word, then *c'est tout—et n'en aura rien encore*. Nonetheless, when dealing with nearly *anything* produced by Marcel Duchamp the quest for hidden significance proves irresistible, and, perhaps surprisingly, it actually leads to some useful results, as in all the preceding chapters. In this example, the facts of the matter of Duchamp's *Fresh Widow* are that the panes (*carreaux, panneaux, vitres*) of the window (*fenêtre*) are deliberately black (*noir*). In fact, the artist orders that they must be daily shined to a deeply glossy, swarthy (or "putrefied") finish. As we are, by the artist's admission, additionally dealing with a widow (*veuve*), then unquestionably there is *some* symbolism in this piece, specifically the color of mourning (*le deuil*)—black (*noir*)—that has always been associated in Europe with widowhood. *Veuve* is also a slang term for the guillotine, another cutting instrument, like the alchemists' swords (see figs. 8, 9). Another allusion in the *Fresh Widow* may be similarly granted, namely to the *Large Glass*, a work still in progress in 1920. Duchamp's invisible widow is literally a bride without a husband, and so she is presently "celibate"; a similarly invisible "Mariée" in the *Large Glass* has no *mari*, only overheated "bachelors" (*célibataires*). Moreover, as is revealed by the emblematic signature, this "Fresh Widow"—"Rose Sélav"—is none other than Marcel Duchamp, the Hermaphrodite of the Avant-Garde (see fig. 20).

Duchamp returned to the blocked window theme in 1921, and again an emblematic inscription—*La Bagarre d'Austerlitz* (MD-132)—not quite identifies the intention of the work in question.⁴² Once again Marcel commissioned a carpenter to do most of the actual manual labor. Having semi-transparent or frosted glass panels, this obvious variation, *type fenêtre*, upon

the theme of *Fresh Widow* substitutes relative transparency for previous total opacity. There are literally two sides to the question posed by this piece: the front is painted a drab gray whereas the back has been painted to simulate brickwork. The emblematic title similarly makes a double reference: first, to Napoleon's victory, or "scuffle" (*bagarre*), on the gory battlefield of Austerlitz and, secondly, to an important Parisian train-station, *le gare d'Austerlitz*.

Unfortunately, any further attempts at an essentially Cabbalistic decipherment of this particular object's potential underlying symbolism seems fruitless due to the impossibility of securing any further textual or verbal documentation from a tenaciously taciturn artist. In a 1953 interview with Sidney Janis, about all Duchamp would admit to was, "I used the idea of the window as a point of departure, as . . . a specific form of expression, . . . a very specific term, specific expression. See, in other words, I could have made twenty windows, with a different idea in each one, the windows being called 'my windows,' the way you say 'my etchings.'"⁴³ Nonetheless, Pernety's *Dictionnaire Mytho-Hermétique* appears to solve the riddle in its immediate sense; apparently, we are simply dealing with just another familiar alchemical theme; in this case, it is the *Vitrum Philosophorum*. According to Pernety, this "Window-Vitrine of the Philosophers" is a common symbol for the "Alambic, meaning the glass vessel [*le vase de verre*] which contains the materials for the alchemical Great Work."⁴⁴

Duchamp's blocked window motif, as a "specific form of expression," appears, as "the *idea* of the window as a point of departure," to represent the metamorphic basis for a truly mysterious *Door* (MD-141) that made its appearance in 1927.⁴⁵ Again fabricated at Duchamp's orders by an ordinary carpenter, it was installed in the artist's Parisian studio apartment. Situated at number 11 rue Larrey, Duchamp moved there in October 1926, immediately following his abrupt separation from Lydie Sarrazin-Levassor, the first (legal) Madame Duchamp. Arturo Schwarz calls this contraption a "three-dimensional pun: a door which is permanently opened and shut at the same time."⁴⁶ This simultaneously open and shut *Porte* was strategically situated between his studio and bedroom. As Man Ray remembered,

There was a door in an angle that closed off the studio, opening on his sleeping quarters, or closed off the bedroom, opening on the studio, which proved that a door could be [both] open and closed at the same time, so demonstrating the fallacy of the old French adage that a door was *either* open *or* shut. Here Duchamp worked and slept in an atmosphere of austerity, like a monk. There was no accessory that might indicate the pursuits of an artist—the chess table was the principal piece of furniture.⁴⁷

Arturo Schwarz called "this object the epitome of a basic paradox: doors, in general, stand for a fundamental ambiguity, a synthesis of arrivals

and departures.”⁴⁸ To me, it simply appears to represent a clear-cut case of “*perceptio interrupta*.” Duchamp twice again returned to the closed/open door motif. In 1937, for André Breton’s art gallery in Paris, Duchamp designed a fragile glass doorway called *Gradiva* (now destroyed at the artist’s specific request). Breton’s gallery was located at number 31, rue de Seine, and *Gradiva* herself was derived from one of Sigmund Freud’s mythic narratives dealing with the ubiquitous theme of amorous *coniunctio oppositorum*.⁴⁹ Photographs of the object reveal that the silhouetted image was that of a pair of embracing lovers who perpetually enter/depart through a fugitive and probably essentially symbolic portal. Executed years later, Duchamp’s last blocked portal is one, equipped with a devious peephole, which now bars the entrance of the viewer-*voyeur* into the hermetically sealed world of his last masterpiece, the mysterious *tableau-assemblage* called *Étant donnés . . .* (fig. 26).⁵⁰

Is it possible to credibly interpret this body of thematically related aperture objects in a wider manner than only that unsymbolic one admitted to by Duchamp? What is unquestionable is the fact that the interrelated motifs of windows, closed rooms, and, particularly, doors and portals are ubiquitous in the plentiful literature associated with the Esoteric Tradition. All of this is neatly explained in a certain book—Antoine-Joseph Pernety’s *Dictionnaire Mytho-Hermétique* (1787)—that Duchamp is now known to have had handy at the Bibliothèque Ste. Geneviève. According to Pernety,

DOOR [*Porte*] stands for the same thing as “key” [*clef, clé*]: an entrance or means to operate within the entire course of the Great Work. Ripley composed a treatise which was entitled *The Twelve Doors*, just as Basil Valentine had called his own work *The Twelve Keys*. The number refers to the twelve operations which are necessary in order to arrive at the stage of the perfection of the Philosophical Stone, or “powder of projection.”⁵¹

According to this wholly alchemical explanation, those mysterious “Doors” by Duchamp are probably really symbolic “Keys,” that is, to the means of putting into operation every secretive step of the alchemical *Opus Magnum*, eventually (as one hopes) leading to the perfection of the Philosophers’ Stone (see fig. 28).

Moreover, Pernety also explains the meaning of the broader action implied by Duchamp’s covert operations, namely gaining metaphorical “Access.” According to Pernety, hermetic “Access” (*l’Ingrès*) is a very specialized sign—alchemical, and certainly *not* Freudian—of “penetration” leading to total fusion:

ACCESS refers to the ability to penetrate. Chemical Philosophers say that their Stone “enters,” is contingent and it “penetrates,” meaning to say that it gains “Access.” This is another way of stating that, whatever

the material in question, the Stone penetrates the material, even into its smallest particles. All of these effects are made to happen within the same operation, and all this happens to take place after the *coniunctio*, or “marriage,” of Male and Female [*opération après la jonction ou le mariage du mâle et de la femelle*]. The Fixed Element can never become volatilized by itself, nor can the Volatile Element ever be fixed on its own account. Access is understood to refer to the faculty of Penetration, a trait belonging to the powder used in transmutation.

The functional corollary (as in “open” versus “shut”) is, according to Pernet, “GAINING ACCESS [*Ingression*] which refers to the action by which certain materials come together in such a way that it becomes impossible to separate them afterwards.”⁵²

Also dated to the period after World War II are some other explicitly erotic objects by Duchamp, more or less discretely representing vulvas and penises; as such, they are all most likely related to the same ongoing hermetic erotic theme. These include a *Feminine Fig-Leaf* (MD-154: *Feuille de vigne femelle*, 1950); a twisted phallus (or *dard*, in French argot) in plaster fittingly called an *Art/Dart/Dick Object* (MD-155: *Objet-Dard*, 1951); and an inter-locked *Wedge, or Corner of Chastity* (MD-156: *Coin de Chasteté*, 1954).⁵³ Arturo Schwarz described this inter-related sculptural trio in symbolic terms, as “a metaphor for the ambiguity of the sexual characteristics. . . . While the first two sculptures of the trilogy represent the female and male sexual organs, the third, characteristically enough, is titled *Wedge of Chastity*. Chastity is associated with sterility and, in turn, sterility is the characteristic of the hermaphrodite.”⁵⁴ In this particular instance, Schwarz’s essentially symbolic argument may be granted some credence, if only because it actually is wholly in line with Duchamp’s now revealed—and documented—patterns of hermetic thought, especially those referring to “the characteristic of the hermaphrodite.”

Duchamp did, in fact, usually prefer to work in triads, and we have already investigated (in chapters 4 to 7) the symbolic significance of some esoteric, specifically alchemical triplets. Viewed more broadly along similarly hermetic lines, the overall idea is, once again, the venerable act of *coniunctio oppositorum*, and such as that notion was very commonly, and very specifically, pictured as a process of figurative sexual consummation or marriage (see figs. 5, 15, 18, 19, 21, 22). Another way of viewing these anatomical pieces is as negative “molds” (*moules*), particularly as the *glan-less* head of the *Objet-Dard* shows it really to be the mold of the interior of a vagina.⁵⁵ As Duchamp wrote in a Note of 1912, “the interior and the exterior can receive a similar identification,” in turn leading Jean Clair to affirm that, in this way, “vagina and phallus lose their distinction.”⁵⁶ As for the variety of expressions produced by Duchamp for his ongoing sexual metaphor, which of course has nothing whatsoever to do with pornography, these are easily summed up,

even assigned proper names just as they appeared in the Notes associated much earlier with the *Large Glass* project.

In brief, Duchamp's three-part, or three-stage, symbolic sexual scenario reads as follows. First, the male generative organ (*l'Objet dard*) generically represents the Masculine Principle, or, as it appears in the Notes, "le principe masculin où malique." Second, the female generative organ (*Feuille de vigne femelle*) represents the Female Principle, or "le principe femelle." Third, and finally, there is the appearance of "Masculine and Female Conjoined," albeit without sexual issue, as in a frustrating *Coin de chastité*. Although the traditional phrase used to describe this symbolically conjunctive act does not literally appear in Duchamp's Notes (as, for instance, "les principes masculin et femelle sont conjoints, conjugués ou reconciliés"), its occult presence is nonetheless made perfectly clear within the narrative context of Duchamp's allegorical anecdotes. In short, the end result is unmistakably what the Hermetic Philosophers called a *coniunctio oppositorum*, as always a motif standing for the "Reconciliation of the Opposites." Moreover, in alchemical allegories this theme was customarily personified by the androgynous, or conjoined, figure of the Hermaphrodite, even (*même*) Duchamp himself (see figs. 21, 22; see also Duchamp *même* in MD-121, and fig. 20). *Eros, c'est la vie. . .*

To conclude our extended survey of the esoteric *idée fixe* underlying the majority of works belonging to Duchamp's amazingly heterogeneous later oeuvre, we appropriately arrive at his last magnum opus: *Étant donnés: 1° la chute d'eau 2° le gaz d'éclairage*⁵⁷ (fig. 25). This is a truly secretive work, like no other known in the modernist canon, one that must be viewed incongruously through a peephole drilled through a massive door (fig. 26). Inside, outside; all are One.

In the strictly visual sense, the origins of *Given: First, the Water Fall; Second, the Illuminating Gas* were first announced in a modest preparatory sketch appearing in 1944 (MD-150).⁵⁸ The first evidence presented for its actual plastic or sculptural realization—as a plaster figure in relief mounted on a black velvet background—only dates to 1948 or 1949 (MD-151). With occasional assistance from his wife Teeny, who faithfully guarded the secret of the ongoing hermetic work until her death in 1995 (like a *soror hermetica*: see fig. 4), Duchamp was able to labor on this complex project in total secrecy over a period spanning two decades.

It was only after his death in 1968, as a kind of posthumous bequest, that the artist's last Great Work was permitted to be viewed by the vulgar (*vulgari*) and the profane (*profani*) masses, terms really only meaning the (still) "uninitiated." What we can presently see is a life-sized environment, now placed, all according to Duchamp's very detailed specifications, at the end of a large gallery in the Philadelphia Museum of Art. This is the hushed place, something like the Sancta Sanctorum of the Temple of Solomon, where the *Large Glass*, several ready-mades, and other major works by Duchamp from the Arensberg collection are now reverently housed.

The first major critical study of *Étant donnés* . . . appeared in 1969, immediately following the unexpected, posthumous epiphany of the massive tableau, Marcel's *dernier cri artistique*. Anne d'Harnoncourt and Walter Hopps then wrote that the new piece

throws a new light on the total output, both visual and verbal, of Duchamp's long career. Because of the secrecy surrounding its construction over the years, and because of the nature of the piece itself, *Étant donnés* . . . will always remain far more inaccessible as a work of art than Duchamp's other major works . . . but there can be no question that this is a *major* work, one ranking with the others. It is not perhaps the culminating piece of his career (which was [formally at least] not a single progression in time) but rather one which was inextricably interlocked with the thoughts and visual conceptions which make up his past (and his present) as an artist. It will throw a new light on earlier objects, remarks and notations, while they in turn will prove to illuminate it. We have no public statements by Duchamp on the new piece, and [dead] he is now mercifully spared all our questions.⁵⁹

As it must appear, now (meaning well over thirty years later) is the time to pose those unmerciful questions, particularly about exactly how this bizarre tableau "was inextricably interlocked with the thoughts and visual conceptions which make up his past (and his [1969] present) as an artist."

Passing through a smallish, completely bare and windowless room, a perhaps startled visitor is suddenly confronted by a huge, arched brick portal enframing an old, weathered, wooden door centered in a roughly stuccoed wall (fig. 26). The door itself is a ready-made or found object; it was *trouvée* in Cadaqués (Catalonia), and then transported all the way from Spain to New York. This evidently symbolic portal (the last in an extended iconographic series: see MD-124, MD-132, MD-141) is worm-eaten, patched, and shown to be hermetically sealed by a heavy and rough wooden crossbar affixed with large iron spikes. Duchamp's portal has neither latch nor knob nor hinges. Our only means of entrance is somewhat figurative: two small peepholes are comfortably situated at the eye level of an average viewer. These are, however, covered by a pair of removable rivets, functioning somewhat like lens covers allowing close inspection by privileged acolytes.

Clearly, this door is not ever to be opened; it is yet another hermetic *vas bene clausum*. By removing the bolt heads, which is permitted, one then looks, as a privileged *voyeur* (even *clairvoyant*), through the twin spy holes. The view is into a surprisingly brightly illuminated, truly hermetically sealed inner sanctuary. The astonished eyewitness now beholds a scene of odd beauty, one which artistically represents a unique juxtapositioning or conjunction of trompe l'oeil realism transported into an unreal, luminously glowing *mise-en-scène*. From the comments quoted above, obviously in 1969 no one was

expecting anything remotely like this from Marcel Duchamp! Even today, no one has anything remotely resembling a plausible explanation for this work, surely the oddest of all the diverse Duchampian aesthetic epiphanies.

Duchamp's amazing tableau is a complex and decidedly theatrical assemblage, one composed of the most diverse materials, techniques, and technologies.⁶⁰ The magical, and immediately convincing effect of the totality of this neo-Baroque environment might make one think of Gian-Lorenzo Bernini's Cornaro Chapel in Rome, unveiling the rather eroticized "Ecstasy of Saint Theresa of Avila." But Duchamp's *coup de théâtre* represents something rather distinct from Bernini's grandly scaled, but always straightforward Catholic religious drama. *Étant donnés . . .* is, quite to the contrary, an internalized and hermetic, modernist enigma covertly viewed through a nearly promiscuous peephole. The titillating tableau insinuates, insidiously, the unsuspecting museum visitor into the role of a perhaps unwilling ocular accomplice, an unwitting voyeur.⁶¹ Were s/he really to ponder the problem, it would be additionally difficult for our bemused spectator to take this massive and cunningly wrought ensemble for what it really is: a laboriously handcrafted artifact, entirely conceived by an elderly and ever secretive gentleman, who, with occasional help from his devoted wife, proceeded to put it together, ever so meticulously, during the last two decades of his genially reclusive life.

The recumbent nude, and especially the artificial landscape placed within the chamber, can be especially viewed as exquisite models of painstaking manual labor. Other components are, however, found objects. The twigs were meticulously gathered on excursions into the countryside beyond Manhattan, while the bricks for the inner wall were collected from demolition sites near a studio, at 210 West Fourteenth Street, which Duchamp had been renting since October 1943. The aged wooden door (fig. 26) is another, rather startling example of an *objet trouvé*, but not one from America, for it once opened onto a sunny street in a tiny Mediterranean fishing village. Sometime after 1960 this curious gateway of nonentrance into Duchamp's underground project was carefully chosen by the secretive artist during one of his frequent summer retreats to the Catalonian seacoast town of Cadaqués, also a favored haunt of Salvador Dalí. Other elements are, however, strictly modernist, incorporating technology only made common in the early twentieth century. The inner chamber is cleverly illuminated from within by a sophisticated battery of hidden lights, amply demonstrating Duchamp's hidden competence as an electrical engineer. This latent technological talent is also attested to by his installation of a small motor which silently powers an endlessly splashing, mechanical waterfall.

Actual work on these heterogeneous components was almost entirely carried out inside the Fourteenth Street studio. This *sancta sanctorum* was described by a few privileged visitors as having been quite lacking in any overt signs of Duchamp's secretive artistic endeavors. One of those rare visi-

tants was the painter and collector William Copley, who vividly recalled Duchamp's austere workplace as being wholly devoid of any signs of work: "It was a medium-sized room. There was a table with a chess-board, one chair, and a kind of packing crate on the other side to sit on, and I guess a bed of some kind in the corner. There was a pile of tobacco ashes on the table, where he used to clean his pipe. There were two nails on the wall, with a piece of string hanging down from one. And that was *all*."⁶² Therefore, other than Teeny, *nobody* knew anything about Duchamp's meticulous labors on this covert project, one fully engaging twenty years of his close attention.

The huge assemblage, apparently occupying his obsessive interests between 1943 and 1968, has been since moved only twice. Around 1965 (as usual, in absolute secrecy) the completed components were taken to be stored in a small room situated in a commercial building located on Eleventh Street, and, in February 1969, a few months after Duchamp's demise, *Étant donnés . . .* was shipped in crates to the Philadelphia Museum of Art. Re-erected at the site of its permanent installation, it was first revealed to an astonished public on July 7, 1969. Typically, publication of Arutro Schwarz's "Complete Works" had to be delayed by a year since Duchamp had not chosen to inform his officially designated cataloguer (*raisonné*) of this, his last Great Work. Unquestionably, this omission proves the point that the man was given over to absolute secrecy, even with his supposedly most trusted colleagues! This unveiling of Marcel's last and most marvellous machination represented a literally posthumous apparition by Duchamp the Artist. It also represents his last physical epiphany as the Alchemist of the Avant-Garde.

In their 1969 monographic analysis of *Étant donnés . . .*, Anne d'Harnoncourt and Walter Hopps dramatically captured the striking visual and psychological effects produced by an unprecedented and arresting scene voyeuristically espied through twin peepholes:

The first shock of encounter with the scene behind the door [fig. 25] will always be a private and essentially indescribable experience. What one actually sees can be reduced to words, but the initial impact is one of the crucial aspects of the work, and is one which cannot be rendered second-hand. . . . When the viewer steps back from the extraordinary door, he has two alternatives. He can leave or go back again for a second look through the little holes, although the view is probably stamped indelibly on his mind from his first encounter. . . . The solid stucco wall and the unpassable door frustrate any hope of extending his knowledge of the scene behind them. One is unable to walk around *Étant donnés . . .*; one cannot get up close to peer at details or back away to a different perspective. Marcel Duchamp has determined forever exactly the amount of detail and precisely the fixed perspective which he wants the viewer to perceive. The illusion is complete in itself; the essence of the piece is in the sheer visual impact of the view.

Their conclusion was absolutely accurate: “*Étant donnés* . . . could [should!] be described as the alter ego of the *Large Glass*.”⁶³

As seen through the twin peepholes, the back wall of the enclosed chamber looks onto a hilly, wooded landscape (fig. 25). A thick cluster of trees, painted in late summer and autumnal tonalities, stretches along the horizon. These colorful landscape features assigned to Duchamp’s magical *hortus conclusus* are outlined against a light turquoise sky sparsely punctuated by a few solitary and insubstantial clouds. To the right, just below the line of trees and issuing forth from a rocky bluff surrounded by vegetation, there is seen a shimmering waterfall, the *chute d’eau*, but this is only a simulation, mere illusion, an effect cleverly achieved by electric lights housed inside a biscuit tin and operated by an invisible, silent electrical motor. The magical waterfall slowly and endlessly precipitates into a wide pond. Rather than being clear and sparkling, its waters, as one senses, are instead viscous and slow-moving. Surrounding this deeply encased pool, and covering the entire background, there is a display of intensely exuberant plant life. Enhancing one’s predominant impression of expectant stillness and hush, depth and lush magnitude, at certain points shreds of mist tenuously hang, like remnants of recently scattered fog. The quasi-meterological complementary effects are those of vapors, those drawn from the earth in the early morning by the sun, or those dews that descend at the hushed approach of nightfall.

The foreground unfolding past the peepholes displays a battered brick wall. A jagged aperture appears in the palisade, a hole seemingly punched violently through it by something like a cannon shot. Through this second, now considerably enlarged peephole, one begins gradually to discern the crumpled form of a nude woman. She is lying motionless upon her back. With her legs all asprawl, she rests eternally upon a rough bed of branches and leaves. The face of the naked woman is hidden from view, partly by the shattered brick wall and partly by a thick mass of golden blond hair which tumbles heavily over her bare shoulder. The equally erotic and voyeuristic (or semipornographic) aspects of the narrative arrangement, at least to this point, are graphically illuminated by Arturo Schwarz, pointing out how the sprawled woman is

spread on a bed of dead twigs and fallen leaves. Her legs are provocatively open, offering with exhibitionist gusto the sight of her hairless sex. . . . Her head cannot be seen—the anonymity of the Bride must be preserved. . . . The whole scene is bathed in a brilliant light which has a peculiar quality that escapes definition. . . . The Bride is mutilated: her right arm is [invisibly] cut off just below the elbow; her feet are also missing. . . . The absence of pubic hair seems to hint at the fact that the Bride is very young [or, more likely, a “Virgin”]. . . . At the same time her debauched posture gives the viewer the impression that the Bride has just reached an orgasm.⁶⁴

Now we suddenly perceive the presence of a truly anomalous motif. Without this device, and especially without the precedent recently set by a full disclosure of the hermetic scenario of the *Large Glass*, as provided in chapter 5, up to this point one might have thought oneself the reluctant eyewitness to the grisly aftermath of another violent rape scene in Central Park. Not so. In her left hand the stripped girl incongruously holds aloft a flaming gas lamp,⁶⁵ made of metal and glass, within which a feeble, greenish light forever flickers.

According to Duchampian terminology, this is the “illuminating gas,” *le gaz d'éclairage*, “a timid glow,” *une puissance timide*, amidst unnaturally bright “sunlight” eternally broadcast from hidden florescent electrical fixtures. Better informed by chapters 4 to 7 as to Duchamp’s real literary interests, we now recognize that rather than left raped, the Virgin-Bride —*la Vierge passé à l'état de la Mariée*—has, once again, been “stripped,” finally and conclusively “*mise à nu*,” by and for her endlessly amorous suitor, the hermetic King. And for this seemingly gratuitous orgasmic conclusion much further documentary evidence shall be presently adduced. Were we not already well apprised in chapters 4 to 7 of the alchemical symbolism that structured so many of Duchamp’s much earlier works, and of the ongoing thematic that does in fact culminate in this bizarrely erotic *tableau vivant (ou mort)*, we might, and quite correctly, find ourselves puzzled over its ultimate meaning, just as Anne d’Harnoncourt and Walter Hopps were.

Certainly, puzzlement has generally been the unsurprising reaction of many other, often admiring observers. For instance, one student of Duchamp, Joseph Masheck, has gone so far as to assert that “*Étant donnés* . . . exists in obvious opposition [?] to the *Large Glass*,” and further concludes that “whereas the *Large Glass* revels in disarmed iconographic over-complication, *Étant donnés* . . . ‘says’ next to nothing, and yet speaks with frustrated urgency. . . . In more ways than one there is no mode of entry, no key to the door.”⁶⁶ Although still conjectural, but also similarly and understandably puzzled, a somewhat better handle on the context of *Étant donnés* . . . was provided in 1969 by d’Harnoncourt and Hopps:

One of the first things to say about *Étant donnés* . . . is that, characteristically, it *looks* radically unlike anything else Duchamp ever did. . . . Equally characteristically, *Étant donnés* . . . bristles with cross-references, visual and conceptual, to many other objects and verbal constructs by Duchamp, and it must have been created within the same highly personal, logical and poetic system for subverting our assumptions about reality. . . . To a world accustomed to contemplating the immateriality of the *Large Glass* with a by-now habitual mixture of admiration and bafflement, Duchamp has succeeded [with *Étant donnés* . . .] once again in presenting a work that has the same force of shock. It will take years for this new and rather recalcitrant work—in which Duchamp [only

seems to have] contradicted himself as thoroughly as possible—to reveal its full relation to the rest of his oeuvre.⁶⁷

So much for the physical conditions of, and some standard contextual assumptions about the admirable and baffling *Étant donnés*. . . . Now, as we must presently ask, just what is its imperative but ever so carefully hidden scenario, the one that somehow “bristles with cross-references, visual and conceptual”? And, overall, just what is “its full relation to the rest of Duchamp’s oeuvre?” We have just described the physical facts of its appearance, and that is, even on first glance, iconographical. Unfortunately, the only textual material by Duchamp that complements the outer or narrative appearance of this work is its title (even including a subtitle), which becomes, in Duchampian terms, an “inscription”: *Étant donnés: 1° la chute d'eau 2° le gaz d'éclairage*.

Actually there are elaborate written materials by Duchamp that belong to strictly external or physical aspects of this work. These consist of thirty-five pages of notes and diagrams, also including 116 photographs showing in complete detail the required stages, in fifteen separate steps, of the final assemblage. Duchamp’s holograph manuscript is entitled “Approximation démontable exécutée entre 1946 et 1966 à New York.” Quite to the contrary of the Notes for the *Large Glass*, as Jean-François Lyotard observes, “the ‘Approximation’ exclusively deals with the manner of the [re]assembly of *Étant donnés*. . . for its museum installation. In spite of this lavish documentation, one finds in in this notebook absolutely no hint of any underlying scenario of any kind.”⁶⁸

In short, the presence of all this abundant documentation only serves to point up the *absence* of any other textual scenario obviously motivating, even explaining, such an elaborate, obviously narrational tableau. It would appear therefore, at least at first glance, that this lengthy title, *Étant donnés: 1° la chute d'eau 2° le gaz d'éclairage*, provides the only textual clues by which we are to unlock the adamant mystery of Duchamp’s last pictorial riddle. The situation of the posthumous tableau turns out to be just like that of the *Large Glass*, but that other work did have the Notes, serving either, depending on circumstance, to baffle or to enlighten us. Craig Adcock in particular has most succinctly stated the case: “The *Large Glass* would have *no* iconography if it were not for the Notes.”⁶⁹ But, as it turns out, even *Étant donnés*. . . does have, after all, some notational background and, accordingly, so must it also inherently have some iconography. Even more curiously, the notation in question—Note 124, representing the essential text-scenario-iconography context for *Étant donnés*. . . —is very early; it must, in fact, must date somewhat after 1912, but certainly before 1915.

In short, it is now a given that the circle closes: Duchamp’s last, truly grand, and unusually captivating magnum opus, although only first publicly displayed in 1968 and 1969, really does date from the genesis period of the

Large Glass. Therefore, quite to the contrary of Masheck's opinion that "Étant donnés . . . exists in obvious opposition to the *Large Glass*," the two tableaux really do in fact represent conceptual mirror images of one another. According to Duchamp in Note 5, "The fourth-dimensional continuum is essentially the mirror of the third-dimensional continuum." Even though they may look different, perhaps drastically so, as I shall now take pains to point out, their motivating ideas and intrinsic meanings are in fact virtually identical. These two works, both initially conceived in the same period, and under the same intellectual stimuli, metaphorically represent in fact yet another hermetic *coniunctio oppositorum*, again meaning in this case a "marriage" of the very same idea, but one hidden under wholly different *outer* appearances.

The relatively long Note 124 of circa 1913 was composed in three parts, namely with a "Preface" and a "Warning," with both closely followed by a seemingly incongruous appendix, the "Algebraic Comparison." Although the first parts of Note 124 do often repeat themselves, in an almost fugal fashion, each section does contain some new material. Moreover, since the handwriting appears nearly identical throughout the memorandum, one may assume that its three components were written within a relatively short period of time. Initially informing us that in the case of *Étant donnés* . . . we are essentially dealing with an "allegorical appearance" representing an attempt at "concordance," in its entirety Note 124 reads as follows:

Préface

Étant donnés: 1° la chute d'eau,

2° le gaz d'éclairage,

nous déterminerons les conditions du Repos instantané (ou apparence allégorique) d'une succession [d'un ensemble] de faits divers semblant se nécessiter l'un [à] l'autre par des lois—pour isoler le signe de la concordance entre, d'une part, ce Repos (capable de toutes les excentricités innombrables) et, d'autre part, un choix de Possibilités légitimées par ces lois et aussi les occasionnant.

Pour repos instantané = faire entrer l'expression extra-rapide.

On déterminera les conditions de [la] meilleure exposition du Repos extra-rapide [de la pose extra-rapide] = apparence allégorique d'un ensemble, etc. Rien peut-être.

Avertissement

Étant donnés (dans l'obscurité): 1° la chute d'eau, 2° le gaz d'éclairage, Soit, donnés (dans l'obscurité), on déterminera (les conditions / considérations de) l'exposition extra-rapide (= apparence allégorique / reproduction allégorique) de plusieurs collisions [attentats] semblant se succéder rigoureusement chacune à chacune suivant des lois, [inutile] pour isoler le signe de la concordance entre cette exposition extra-rapide (capable de toutes les excentricités) d'une part et le choix des possibilités légitimées par ces lois d'autre part.

*Comparaison algébrique**a* a étant l'exposition*b* b étant les possibilités

le rapport a/b est tout entier non pas dans un nombre³ c $a/b = c$ mais dans le signe (a/b) qui sépare a et b ; dès que a et b sont⁴ "connus" ils deviennent des unités nouvelles et perdent leur valeur numérique relative, (ou de durée); reste le signe a/b^5 qui les sépareit (signe de la concordance ou plutôt de . . . ? . . . chercher).⁷⁰

Put into English, this incunabulum becomes:

Preface

Given: 1st the waterfall; 2nd the illuminating gas, we shall determine the conditions for an instantaneous Repose (or allegorical appearance) of a succession [of a grouping] of diverse facts seeming to require one another according to certain laws—[attempt] to isolate the sign of the concordance between, on the one hand, this Repose (capable of all the numberless eccentricities) and, on the other, a choice of Possibilities authorized by the laws and, additionally, opportunely giving rise to them.

In place of instantaneous repose, bring in the expression extra-rapid.

One shall determine the conditions of [the] best exposure of the extra-rapid Repose (of the extra-rapid pose) which is the allegorical appearance of an ensemble, etc. Nothing perhaps.

Warning

Given (in the darkness) 1st the water fall 2nd the illuminating gas,

It may be, [or] given (in the darkness) one shall determine (the conditions of / considerations for) the extra-rapid exposure (equaling an allegorical appearance / an allegorical reproduction) of several collisions [assaults] seeming rigorously to succeed each other, one after another, according to certain laws, (useless) in order to isolate the sign of the concordance between this extra-rapid exposure (capable of all kinds of eccentricities) on the one hand, and, on the other, between the choice of possibilities legitimized by certain laws.

*Algebraic Comparison**a* a representing the exposure*b* b representing the possibilities

the connection a -over- b is in no way given by a squared number, c , [where] a -over- b equals c , but by the sign, a -over- b , which separates a

and b; as soon as a and b are raised to the fourth power, [and become] “known or recognized,” they have become certain new units and [so] they lose their relative numerical values (or [values] as duration); there [still] remains the sign of a-over-b raised to the fifth power, which separates them ([another] sign of concordance, or rather [a sign] of ?: look for it).

This appears, at first glance, to be sheer nonsense. Nevertheless, the suggestion may again be made that there was a certain published text to which Duchamp referred in order to gain, and subsequently to distort, the bulk of his quirky terminology. Specifically, we are looking for a text that initially, mainly provides us with a constructive—meaning *coherent*—employment of the two motifs essential to Duchamp’s argument, namely a “waterfall” as linked to some kind of “illuminating gas.” The largely unexpected result is that we shall, once again, find ourselves dealing with another very concrete allusion to, or even literally an illustration of, the actual mechanics of the ever mysterious Fourth Dimension. Finally, once properly identified, this document proves to be the only published text, especially since it strictly relates to this particular “given” context of strictly Duchampian waterfalls and illuminating gases, which might also provide us with the definitive contextual definition of Duchamp’s endlessly puzzling, and much discussed term *épanouissement* (already analyzed in a complementary context in chapters 5 and 7).

The publication in question is one that we have already consulted (see chapter 7): A. de Noircarme’s *Quatrième Dimension* of 1912 (see fig. 24). First we may quickly deal with the rather odd, seemingly noncontextual matter of the third part of Duchamp’s Note 124, the “Algebraic Comparison.” As may be argued, the ultimate textual source for all such ruminations—as echoed, for instance, in many other Notes dealing with fourth-dimensional states—was a certain note-length essay that had appeared in a Theosophical magazine in March 1911.⁷¹ Duchamp, however, presently seems to me rather more a student of books (particularly inexpensive paperbacks) than an assiduous periodical peruser, and we already know that Noircarme’s book was available to him while he was pursuing his researches in the Bibliothèque Ste. Geneviève. Particularly in the context of what immediately follows, it may instead be believed that Duchamp had originally gathered this schematic information in the way that it was very soon thereafter reprinted in Noircarme’s 110-page essay (originally costing one franc) on the Fourth Dimension.

In this publication, besides repeating exactly arguments presented earlier in the 1911 article published by his Theosophist co-religionist, which he carefully cites, Noircarme presents us with a “mathematical table containing all the constituent elements of an n-dimensional solid.”⁷² Of particular interest to this student of esoteric geometries was the “development of the binomial

$(x + a)^n$, in which one has it that $x = 2$, and $a = 1$, with n representing the cypher of the dimension in question.” This leads to a series of formulas designed to represent “the development of successive powers,” including, for instance, the following:

En effet [selon Noircarme], le développement des puissances successives de $(x + a)$ donne:

$$(x + a)^0 = 1;$$

$$(x + a)^1 = x^1 + a$$

$$(x + a)^2 = x^2 + 2 X a + a^2$$

$$(x + a)^3 = x^3 + 3 x^2 a + 3 xa^2 + a^3$$

$$(x + a)^4 = x^4 + 4 x^3 a + 6 x^2 a^2 + 4 xa^3 + a^4$$

[etcetera]

In short, this appears the closest functional analogue yet known to Duchamp’s *Comparaison algébrique*, likewise an esoteric meditation upon the *quatrième dimension*.

The much more truly significant textual material in question—that which consecutively links a “waterfall” to an “illuminating gas,” and then shows that *both* motifs were originally accompanied by a certain *épanouissement*—is found in Noircarme’s Chapter 10, “The Measure of the Fourth Dimension,” which we have already (in chapter 7), usefully related to the climactic 1918 painting, *Tu m’ . . .* (see fig. 13). The literal translation following would appear to furnish additional, and perhaps now decisive, evidence establishing Duchamp’s close familiarity, probably early in 1912, with this Theosophical text. Additionally, here we find, among other useful disclosures, the most likely contextual source for Duchamp’s quirky terminology, *extra-rapide* and *ultra-mince*. Even better, Noircarme’s little book explains a previously hidden, fourth-dimensional agenda for the program of pseudo-physics motivating Duchamp’s two quintessential masterpieces, *The Large Glass* and *Étant donnés . . .* Here is how Noircarme’s discussion of the means of properly illustrating actions belonging to the Fourth Dimension reads in its entirety (with the “Duchampian” phraseology left in the original French):

Here is another procedure which better puts into relief the workings of the Fourth Dimension (Fig. 35 [my fig. 27]). We are going to imagine *une colonne d’eau tombant* [a falling column of water, or “waterfall”] upon a plane. Here the fall of water will naturally tend to spread out in a sheet growing ever bigger and, additionally, ever more *mince* [thin]. The *rapidité* of enlargement of this sheet depends upon the height of the *colonne d’eau*, meaning as due to pressures exerted by *l’eau* in the third dimension.

Now let us suppose a being who exists in two-dimensionality, and who is one whose life-plane happens to coincide with this same Plane P. He has no consciousness of the column of water which lifts itself

straight out of his world and upwards into the third dimension; likewise, he cannot perceive anything but a sheet of water lacking any thickness. Evidently, it is not the water itself which he sees, for this water constitutes three-dimensional matter; rather what he perceives is only the manifestation of the water fall in his two-dimensional world. This sheet only appears to him to widen and to extend itself, and this is because he cannot actually see its real source, the *colonne d'eau tombant* upon the plane.

If he were to remark upon this enlargement, in reasoning it out he could say to himself, "The sheet which I see has no reason to expand in this way; if I were to put up a barrier against it, it would work upon this barrier with a certain pressure; this pressure could only spring from a corresponding pressure coming down from a third dimension—one which remains invisible to me." In such a way, this two-dimensional being could measure the height of the *colonne d'eau* within the third dimension, either by means of the *rapidité* of enlargement of the sheet or by means of its pressure working against the barrier which opposes it, meaning by its power of extension within two dimensions.

Within our three dimensional world, under certain conditions we happen to see those *gaz ou des vapeurs* which do, more or less brusquely, expand (including water vapors kept under pressure, or a mixture of air with a gas—*gaz d'éclairage*, or gasoline or alcohol, or acetylene, etc.), and they will do so until they occupy a certain volume. What is the source of this force of expansion? The preceding arguments have indicated to us that this force must come from the Fourth Dimension, or even from the fourth-dimensional world.

Due to a sequence of physical or chemical processes which give birth to this *gaz*, a certain quantity of *l'énergie*, which is the energy containing the manifestation of this *gaz* within the fourth-dimensional world, passes into the physical world; all this takes place within a certain physical manifestation, which is, for us, *ce gaz*, and it constitutes its tension. At this point, *le gaz* tends to expand until it attains *l'état d'équilibre* [or "Repose"] which corresponds to atmospheric pressure. Just so long as the quantity of *énergie* which must descend from the superior [fourth-dimensional] world is maintained, there will be a kind of pressure coming down from the superior world by means of the Fourth Dimension—whence the tendency of *le gaz* to expand within our three-dimensional world. One can even imagine that there is always pressure exerted by the Fourth Dimension. The fact is that *un gaz* can never attain its complete *épanouissement*; [this incomplete *épanouissement* is] due to the corresponding pressure exerted by *autres gaz*, notably the air in the atmosphere, evidently also coming from the same source. It is *l'ensemble* of these pressures emanating from the superior [fourth-dimensional] world, and working upon each physical body, which will actually make up *l'équilibre physique*.

Therefore, the capacity for expansion in a given *gaz* must come from the fourth-dimensional world. The same thing must happen in the case of the density of solid bodies, with the difference that they are

stable and so can not dilate, meaning that they equilibrate themselves through atmospheric pressure. Accordingly, variations of density belonging to a body must be due to certain variations in pressure which is being exerted by the Fourth Dimension. To the degree that any body passes from the solid to the liquid state, then to the *gazeux* state, its density diminishes and thus it approaches a state of fourth-dimensional matter. Similarly, once its physical density becomes absolutely zero, then the Fourth Dimension will be plainly manifested in it. Accordingly, even within our three-dimensional world, the Fourth Dimension must still be considered as being represented by the density of bodies or, in the case of *les gaz et les vapeurs*, by their power of expansion.

Differences between chemical elements, therefore, really all arise from differences of pressure conforming to the [wholly esoteric] Fourth Dimension. This observation leads us to the hypothesis of the Ultimate Physical Atom [*l'atome physique ultime*]. Subject to the more or less great action of this force, which is the one exerted by a superior world conforming to the Fourth Dimension, these atoms give birth to the different simple bodies belonging to chemistry. Evidently, these chemical simple bodies are the physical, hence limited, representatives of those same bodies belonging to fourth-dimensional matter. For instance, fourth-dimensional force will work less upon aluminum than iron, and less on hydrogen than nitrogen, and this is because iron is more dense than aluminum and nitrogen is denser than hydrogen. In other words, hydrogen and aluminum are, respectively, much closer to the state of fourth-dimensional matter than are nitrogen and iron.

We are, therefore, led to this hypothesis, namely that every physical manifestation is produced by a force descending from a superior [occult] world and, additionally, that it is due to a limitation emanating from that world. Likewise, a fourth-dimensional manifestation must be produced by an identical force coming from the fifth-dimensional world, likewise representing a limitation of the latter, and so it proceeds in a series, right up to the very top of the steps of the n-dimensional worlds [*l'Échelle des mondes*: see my fig. 24]. We accordingly perceive *la marche descendante* [the descending steps, or staircase] of a great *Force créatrice*—the first Wave of Life, the third Logos, the Holy Spirit—which begins at the Absolute. From that point, the Absolute, it progressively descends through one world down to the next world and, within each world, it descends through different degrees, all the while organizing Matter; and so it pursues its operations throughout the entire duration of the Universe, and the operation continues until this Creative Force finally arrives at a physical state of the greatest density [see MD-64: *The Nude Descending a Staircase*].⁷³

This Creative Force, therefore, really represents a force which LIMITS the possibilities belonging to matter when it finds itself in a state which we would call "*Matière vierge*." This Virgin Matter is wrongly taken by certain people to represent Nothingness or Chaos. If, however, we chose to regard our solar system from the point of view of the [as-

ending] dimensions, we will then see that this state of Virgin Matter instead represents the tenth-dimensional world. Therefore, everything which physically exists carries within itself the Fourth Dimension; it additionally may contain within itself the fifth, the sixth, and all the further dimensions—but these will exist only in a latent manner. The manifestation of these superior dimensions appears to us to be paralyzed by the action of a great *Force limitatrice*, which might also be called an organizing force of matter, but certainly not a “creative” force in the sense of “to create,” as in “to make from Nothing.” In its state of physical matter, this Restrictive Force maintains the Fourth Dimension in a condition of latent power; likewise, the fifth dimension limits the state of fourth-dimensional matter, and the sixth dimension so operates upon the fifth dimension, and so on, throughout all the sequences.

Once this universal [neo-alchemical] force ceases to exert its powers, it will then retreat (figuratively speaking) *du bas vers la haut* [from below upwards], and then all physical matter, now liberated from its pressures, shall lose its density and will, at the same time, ascend, one degree after another, until it arrives at a state of superior matter, and this is the point where the Fourth Dimension shall openly manifest itself in matter. At this very moment the physical world shall cease to exist. Then the fourth-dimensional world shall absorb in its turn the fifth-dimensional world, and the latter shall re-enter into the sixth-dimensional world, and the sequence will progressively continue, from world to world, right on up to the Absolute. We may conclude by citing a beautiful image drawn from Hindu scriptures: “At the end of the world, the entire universe shall return to the bosom of Brahma.”⁷⁴

As for that important term—Duchamp’s *l’épanouissement*—included by Noircarme, we have already noted in chapter 5 that it is one of the most important and evocative terms used in the Notes for the *Large Glass*. Its English equivalent is usually given as “blossoming.” Nonetheless, in French the meaning of the word *épanouissement*, although it may be used to describe to flowering of a tree or bush, really begins with the idea of an opening out, of an expansion or development, as in space, and just as was shown by Noircarme. Moreover—and this point is crucial in specifically dealing with Duchamp’s hermetic ruminations—the word also implicitly contains a sexual element. As such, it additionally embraces the arousal of erotic sensations and sensual feelings, and then to their gradual intensification and expansion—until that point at which the sexual experience passes over into a state which may be called, besides *jouissance*, *orgasme*, and *spasme* or (*grand*) *frisson*, additionally *épanouissement*.⁷⁵

As we may presently suppose, given the patently fourth-dimensional context of Noircarme’s Theosophical arguments, Duchamp must have seized upon the term *épanouissement* in the way that it was originally employed in Jouffret’s *Traité* of 1903. The initial appearance of the term in Jouffret’s

Elementary Treatise of Fourth-Dimensional Geometry seems, however, much too technical or too restricted to apply really to Noircarme's contextual and essentially metaphysical usage. In the way that Jouffret used the word *épanouissement*, we only read that "consideration should not be omitted of a definition of the triadic demi-planar figure [*le trièdre*] of the second species. It corresponds to the figure of a cone of the second species, one which might happen to be viewed much further away. One and the other figure only represent the beginning phase of an *épanouissement*, [an effect] which continues, complicating its form ever more, through fields of higher degrees."⁷⁶ Since, however, Noircarme's subsequent employment of *épanouissement* was clearly much more metaphysical (meaning here "esoteric") than geometrical in its implications, then a second, slightly later and contextually far more appropriate, source may be additionally proposed for our Theosophist author. In an article published in 1909, which deals with the much more expansive topic of "The Evolution of Philosophy from the Nineteenth- to the Twentieth Century," Pierre Valin, who himself sounds very much like a Theosophist, grandly announces that

It is nonetheless necessary to recognize that there are absolute mathematical reasons for demonstrating that the syntheses created by the Fourth Dimension are realized by *l'épanouissement*; [and] that, within these superior dimensions, beings and dominions will be of an ever more subtle fluidity, and that their surroundings will possess capacities ever more radiant. . . . What horizons are now opened to scholars, to the occultists, to the poets!⁷⁷

And, as it appears, to contemporary painters as well.

I strongly favor the idea that there was probably another French Theosophist—like Valin, and maybe even Noircarme himself—who might have published the same kind of statement consecutively linking the three critical terms later picked up by Duchamp, namely *épanouissement*, *chute d'eau*, and *gaz d'éclairage*. Since occultist writers are notoriously self-plagiarizing, one supposes that, like all the rest, Noircarme was scarcely original in his choice of imagery. No matter: the main point has been again made, that Duchamp's inspiration and French source materials were necessarily drawn from the Esoteric Tradition—and certainly not from contemporary science as such. In sum, it is perhaps uniquely Noircarme's Theosophical, likewise *épanouissement*, explanation that presently best explains the fourth-dimensional impetus lying behind Duchamp's odd coupling of a symbolic "waterfall" and its conjoined "illuminating gas."

We again recall that Duchamp's Note 124, where these terms made their initial appearance, must date somewhat after 1912, but certainly before 1915. We also recognize how it was Noircarme who, perhaps uniquely, had

linked this distinctively Duchampian phraseology in 1912 to that bizarre state, *l'épanouissement*, that belongs to the symbolic Virgin-Bride who became the heroine of a hugely celebrated *Large Glass* (see chapter 5). As we also now know, both *Étant donnés . . .* and the *Large Glass* were conceived at the same point in time, that is, between 1912—that is, shortly after the publication of Noircarme's *Quatrième Dimension*—and 1915, and obviously both projects arose from similar stimuli. One immediate result of our perusal of Noircarme's thoroughly Theosophical text—with results further supported by our readings in complementary fourth-dimensional texts written by Jouffret and Pawlowski (see chapter 7)—is the revelation that *Étant donnés . . .*, just like the *Large Glass*, must represent a complementary kind of *Opus Magnum*, or *Grand Oeuvre*. From this perspective, the final tableau, only officially unveiled in 1969, becomes Duchamp's culminating fusion of the Fourth Dimension and that brand of esoteric chemistry that nearly always accompanied discussions of fourth-dimensional phenomena presented in writings (as quoted in chapter 7) stemming from various fin de siècle followers of the Esoteric Tradition.

Moreover, as discussed in chapter 5, we now recognize that the larger scenario, that “allegorical appearance,” belonging to the *Large Glass* has clear-cut hermetic significance, according to the hermetic terminology that has been so carefully defined by both Dom Pernety and Albert Poisson. Therefore, we may similarly assume that the same, equally allegorical and alchemical, scenario exists for *Étant donnés . . .*, a major work conceived at the same time and under the same conditions. Moreover, just as must be the case with the *Large Glass*, we cannot assume that the inherently narrativeless Fourth Dimension was really Duchamp's primary concern in *Étant donnés . . .* In both works, and particularly in the case of Duchamp's final and most baroque opus magnum, *Étant donnés . . .*, obviously the narrative element, the allegory, was the foremost impetus. If it were not the principal motivation, then why all that excessively naturalistic or story-telling apparatus? Since Alchemy is inherently the most narrational, and thus also the most illustrated, of all branches of the Esoteric Tradition, these esoteric operations provide, once again, an understood context (*donné*) for interpreting *Étant donnés . . .* Just as chapter 5 unraveled the multiple mysteries incorporated into Duchamp's *Large Glass*, so must we deal here with both hermetic themes and alchemical motifs specific to *Étant donnés . . .*

We may begin on the broadest level by dealing with motifs specifically derived from our most immediate Duchampian text or “inscription,” that is, the very title of the work itself: *Étant donnés: 1° la chute d'eau 2° le gaz d'éclairage*. As just described, Duchamp's tableau actually does display a mechanically operated waterfall. The narrative aspect of the water motif is the easiest to unravel in strictly hermetic terms. According to Pernety's *Dictionnaire Mytho-Hermétique*, to which we have so frequently resorted, “EAU.

Les Philosophes chimiques se servent souvent de ce terme, non pas pour signifier l'eau commune, mais leur Mercure." Subsequently, Pernety lists dozens of kinds of "water," all of which, nonetheless, just mean the "Mercury of the Alchemists."⁷⁸

The other essential term in Duchamp's title, "GAZ," is also fairly straightforward, that is, once it becomes understood hermetically, and, as just described, Duchamp's tableau actually does display a "gas lamp," the one clutched in the hand of his hermetically ravished Bride-Virgin (fig. 25). According to Pernety, "GAZ: Terme dont s'est servi pour exprimer la substance spiritueuse et volatile qui s'évapore des corps. . . ."⁷⁹ Whereas this author has some more to say about such purely alchemical gases, suffice to say that, once again, the gaseous terminology only "expresses the spiritual and volatile substance evaporated by bodies," and again that means "Mercury," Duchamp's *principe femelle*, as it/she undergoes heat and pressure during operations uniquely belonging to the Magnum Opus of the Alchemists.

Reduced to their bare verbal bones, both terms just defined by Pernety prominently appear in one of Duchamp's last ready-mades (MD-196). The immediate function of this minimalist object (*avant la lettre*), inscribed with the artist's monogram "M. D.," was to serve as a kind of metallic seal set upon the box containing the deluxe edition (32 authorized examples in all) of Robert Lebel's *Sur Marcel Duchamp*, published the next year to great acclaim. As executed by Duchamp in Paris during the summer of 1958, this is simplicity itself: a deep blue, enameled metal (iron) plaque, measuring 15 x 20 cm., which bears an inscription, the kind once familiar to Parisians, neatly laid out in white letters (*sans serif*). This object, which Jean Clair calls a "Ready-made imité," exactly simulates the kind of announcements one formerly saw, a century ago, posted on newly erected apartment buildings. The statement it bears is concise, to say the least:

EAU & GAZ
À TOUS LES ÉTAGES.

For the reader who has followed my arguments to this point, the English equivalent of the message is obvious: "WATER AND GASES ARE TO BE FOUND AT ALL STAGES OF THE ALCHEMICAL OPUS." But a reality check is presently called for: our readers have been by now made into initiates, accredited members in an esoteric game for which Duchamp has set the rules. As for the uninitiated rest, the ignorant masses *sans le savoir*, an accurate English translation of the once standard, understood content would merely yield the banal observation that in this particular building, running water and gas-lighting hookups are to be found on each and every floor. The chronology of Duchamp's enamel sign, a literal *double entendre*, also confirms that it makes covert reference to the meaning of *Étant donnés* . . . , a literally secret work well under way by this time, 1958.

The *gaz*-idea so neatly explained by Pernety is physically displayed in *Étant donnés . . .* by the flaming gas lamp—in French, a *feu de lampe*—held aloft by the supine nude woman, and its obvious component parts, as terminology (in French), include *Air, Chaleur, Feu, Feu de Lampe, Flamme, Lampe, Lumière, Vapeur*, etc., all of which are exhaustively treated by Pernety.⁸⁰ Since these terms are all alchemical in their employment, as a matter of natural course they contextually repeat themselves. Given this, we need only note that it is Pernety's definition of one particular term, "Lamp-Fire," which is the one that best fits Duchamp's particular picturing of his "Illuminating Gas." The *Feu de Lampe* represents, once again, "The Mercury of the Philosophers." Accordingly, Pernety explains that

LAMP-FIRE represents the Water, or Mercury of the Philosophers, but not the fire in an ordinary lamp, as some have erroneously concluded following Artepheus, who states: "We properly have three fires, and without these the Art cannot become perfect." The first of these is the "*Feu de Lampe*," which is a continuous, humid, vaporous, aerial fire. It takes considerable artifice to find it. . . . Our water [as "Lamp-Fire"] is not vulgar mercury; it is instead a living water, it is bright, brilliant, white as snow, hot, humid, aerial, vaporous and digestive. It is the heat thrown off by a lamp with has been attended to gently and, as it is temperate, so will it encircle the matter and cook it.⁸¹

The first specific, physical and literally external motif to be dealt with in *Étant donnés . . .*, which itself reveals yet another important underlying hermetic theme, is Duchamp's grand portal. The easiest way to approach the portal problematic is by illustrating it, and for these purposes we may once again turn to Michael Maier's splendidly illustrated alchemical emblem book, the *Atalanta Fugiens*. This is a work which I have already proven, in chapter 5, was known to and even used—both pictorially and textually—by Duchamp's principal patron, Walter Arensberg. The elaborate textual explanation given by Maier for this hermetic symbol may additionally serve us as a means of illustrating the most plausible explanation for Duchamp's previous symbolic portals, beginning in 1920 with the blackened window panes of a *Fresh Widow*, and also including, in 1927, a mysteriously "not opened and not closed" *Porte, 11 rue Larrey* (MD-124, MD-132, MD-141).

Maier's twenty-seventh emblem, "Qui Rosarium intrare. . .," depicts a frustrated Philosopher-Alchemist, textually described as the one "without a key"⁸² (fig. 28). This keyless (or clueless) Adept-Artist, like a present-day observer of *Étant donnés . . .*, stands baffled and disappointed before an arched and massive locked gate barring entry into *Rosarium Philosophicum*, or "Rose-Garden of Hermetic Philosophy." This thwarting gate, exactly in the manner of the *porta claustra* of *Étant donnés . . .*, is described by Maier as being "always closed with strong bolts," and "the two [metaphorical] keys in Hermetic Chemistry are [literally expressed by] the key and the bolt." Obviously,

the poor, empty-handed (or empty-minded) simpleton, left forever standing in befuddlement outside this forbidding gate, has neither of these two symbolic, but absolutely essential instruments of entry. He lacks both key and bolt, and this is because he is not yet properly “initiated” into certain sublime mysteries typically concealed behind a huge door, and now placed within the similarly hidden “Rose-Garden of Hermetic Philosophy.”

In this case, according to Maier’s relatively straightforward explanation, the symbolic key to Alchemy is the *lapis philosophorum*, or ever elusive Philosopher’s Stone. Maier’s description of the magical *Rosarium* hidden behind the gate corresponds in nearly every significant detail with the visual details of a luxuriant landscape constructed with such loving attention by Duchamp for his *État donnés*. . . . Moreover, we also read how “at the entrance you will see Venus [who] colored the white roses red with her blood.” This bloodless Venus is herself “a Rose, which is itself a Virgin, armed by Nature [with thorns], so that it cannot be violated [or raped] with impunity” (see fig. 20: *Rose Sélavy*, aka *Eros*, *c’est la vie*). The entirety of the first two components of Maier’s twenty-seventh emblem read as follows in a literal translation:

MOTTO [or inscription]

He who tries to penetrate into the Philosophical Rose Garden without a key resembles a man who wishes to walk without feet.

EPIGRAM [in verse]

The Garden of the Wise has an abundance of diverse flowers, / But the gate itself shall be always sealed with strong bolts: / Only one thing, itself of little value, is to be found in the world to provide the key to it. / Without this key you will only stumble about, like a legless man. / You will [key-less] try in vain to ascend to the steep top of Parnassus, / You who has barely strength enough to remain standing upon a flat plane.

The final, third, part of Maier’s emblem twenty-eight reads as follows in a now somewhat compressed, but still literal, translation:

DISCOURSE [in prose]

People who in the [hermetic] philosophical work rely exclusively on Vulcan’s fire, and who omit the wisdom of Athena, will only produce monstrous and foot-less, deformed offspring. These can neither stand by themselves nor be of use to anyone else. . . . Man needs two legs for walking, two eyes for seeing, two hands for grasping. Like a man, medicine and any other profession [like art] need two supports to stand upon, and these are *Experientia* and *Ratio*, without which no success can be forthcoming. In chemistry the two supports are the key and the bolt [respectively standing for “Experience” and “Reason”]. It is only with

clavis et pessulus that the Rose Garden [*Rosarium*], which is closed on all sides, may be opened up [*feratum aperitur*]. Lacking these, you resemble a cripple who wishes to run down a rabbit. Likewise, anyone who would force entry into the garden without the key becomes a kind of thief and, for sneaking about at night in darkness, he will not be able to recognize any of the things that grow in the *Rosarium*. Consequently, he can draw no profit from these.

That [symbolic] key is [in the material sense] something unimportant, an object of little value; it is, however, also called a Stone [*lapis*] and it is the root without which no seed can sprout and without which no precious gem can be formed. Without it, no Rose ever comes into bloom nor unfolds its tiny leaves [*nec Rosa vernat aut folia millecupla explicat*; as in *épanouissement*]. If you were to ask me where this Stone is actually to be found, I would have to answer: You must search for the key in the place . . . where winds, manslaughter, reflection and the ruin of mankind are all found mixed together. This place [as a symbol of alchemical *putrefactio*] has been interpreted as the smithy, the winds as the bellows, manslaughter as the hammer, and the ruin of man as being like a piece of iron which is beaten. If you pay heed and properly learn to distinguish the signs, then you can find this key in the northern hemisphere of the Zodiac, while you will find the bolt for the gate in the southern part. After that, [key in hand] it will be simple for you to open the gate and enter within.

At the entrance you will see Venus with her beloved Adonis. She has colored the white roses red with her blood. . . . The rosebushes [in the garden behind the gate] will need the warmth of the sun and the earth before they can acquire that color and the delicious flavors which caress the senses so. When vapors from common sulphur touch them they become white. When, however, the essence of vitriol [*spiritus vitrioli*], or strong water [*aqua fortis*], brushes against the blooms they become red once again, but this is a red which will endure. Common sulphur contrasts with Philosophical Sulphur, even though the former is powerless to destroy the latter. It is, however, the dissolving water [*aqua solutiva*, or Mercury] which brings about a reconciliation, so maintaining their colors. Due to its beauty, the Rose is dedicated to Venus for it surpasses all other blooms in loveliness.

The Rose is itself a Virgin, but it is a Virgin who has been given weapons by Nature, and these are provided so that the Rose-Virgin cannot be violated, or raped, with impunity [*ne absque vindicta violaretur impunè*]. Violets [*violae*, a pun on "raped"] are not so armed; accordingly, they are trod underfoot. Hidden between their thorns, Roses display golden or blond hair on the inside [*capillos flavos habent interius*] while on the outside they have a green garment. Only the wisest are enabled to pluck these Rose-Virgins and to separate them from their thorns. Therefore, with the sole exception of the most careful of Hermetic Philosophers, nobody will ever pick these roses; the rest must content themselves gathering bile instead of honey. There have already been a

multitude of people who, with the hands of robbers, have secretly entered into the Rosarium. However, other than pain, they never were able to take anything [of profit] from it; all their troubles were in vain.

Now, with symbolic key and bolt in hand, we are permitted, as recently informed initiates, to journey beyond a largely symbolic portal steadfastly guarding the hermetic secrets contained within Duchamp's *Étant donnés* . . . (fig. 25). Within, we find a sprawled Virgin-Rose, one even with a coiffure composed of those *capillos flavos* in addition to a markedly "rosy" skin tone. This golden and rosy Virgin slumbers heavily; she is spent, post-coital. She sleeps off the brightened and flowery raptures of her orgasmic *épanouissement*. In fact, Duchamp's handwritten "Approximation," dealing with the assembly of his erotic, hermetic tableau, was explicitly emphatic about its lighting effects in this regard: "The spotlights must fall vertically—exactly—on to her cunt" (according to Duchamp: *L'éclairage doit tomber verticalement, exactement, sur le con*).

Hers is the profound sleep that follows the ecstatically orgasmic raptures of a Virgin's alchemical, symbolic nuptials, those in which she was consumed by an *incendium amoris*, the fires of love. She sprawls awkwardly upon her back, with no self-consciousness, with arms and legs akimbo, with her thighs invitingly opened out to any viewer-made-voyeur; she suffers from neither false prurience nor any apparent sense of shame, meaning that she is completely *sans pudeur mécanique* (see fig. 8). Any informed student of belles lettres is of course now also well aware of many universal poetic metaphors likening the transports of sexual union and orgasm with death; similar conjunctions of *le rêve* and *la mort* were found in poetry celebrated in Duchamp's youth.⁸³

For the specifically alchemical employment of the orgasm-as-death motif, we may turn to a modern student of hermetic science, F. Sherwood Taylor, who notes that

The combination of two bodies was seen as a "marriage," the loss of their characteristic activity as "death," the production of something new as a "birth," the rising up of vapor [as from a gas lamp] as a "spirit leaving the corpse," the formations of a volatile solid as "the making of a spiritual body." These conceptions influenced [the alchemist's] idea of what should occur, and he therefore decided that the final end of the substances operated on should be analogous to the final end of man—a soul in a new, glorious body, with the qualities of clarity, subtlety, and agility.⁸⁴

For the Hermetic Philosophers, the orgasm-as-death metaphor complemented, even illustrated, one of their basic axioms, "No Generation Without Corruption." In one of the earliest surviving hermetic documents, Hermes Trismegistus explains the principle to his son by saying to him,

But if men quit the body, the process is reversed. The soul ascends to its own place, and it is separated from the vital spirit; and the body is separated from the soul. . . . The living creatures do not die, my son, but they are composite bodies, and as such they undergo dissolution. Dissolution is not death; it is only the separation of things which were combined; and they undergo dissolution, not to perish, but to be made new.⁸⁵

Michael Maier also deals at some length—in his fiftieth emblem, the last in the *Atalanta Fugiens*—with the provocative imagery of alchemical eroticism, death, and resurrection (fig. 29). Most interestingly, Maier chose to illustrate his interpretation of the theme with the picture of a simultaneously moribund and orgasmic woman who lies on her back with eyes closed. It is she who literally “dies, whilst rejoicing in her marriage bed” (*maritalis dum carpit gaudia lecti, hac moritur*). Specifically, she is pictured by Maier as being tightly embraced within the mortal coils of an immense, poisonous viper; this serpent particularly symbolizes “the matter, which is left on the bottom, after the water has been distilled from it.” This “cold dragon” is also described by Maier as having recently served as the dying woman’s lethal lover. The amorous couple had been conjoined in a vast grotto located far beneath the surface of the earth, a place well hidden from all human vision. Before her amorous initiation into alchemical orgasm and death, she was herself first “a Virgin, the true element, which is resistant to fire.” She also stands for heated “Air and Water,” primal elements remotely related to a modernist Alchemist-Artist’s “illuminating gas” and a “waterfall.” The dragon who deals orgasm and death conversely stands for the elements of Earth and Fire. Here is how Maier explained his gory, but symbolic, alchemical blood bath:

MOTTO

The Dragon kills the Woman, and she kills him, and joined together they bathe in blood.

EPIGRAM

Have a deep grave dug for a poisonous Dragon, / With which a Woman should be tightly intertwined: / While rejoicing in their marriage-bed, the Woman dies, / And with the Dragon she is to be buried in the ground; / Thereby the body dies, and is infused with gore: / This is now the true path of your Opus.

According to Maier’s DISCOURSE:

The Dragon lurks in caves beneath the earth; man, on the other hand, lives in the air nearby and above the earth. They represent, according to the Hermetic Philosophers, two opposing elements, but these must be

married [*coniungi*] so that one works upon the other. By the Bride-Wife some understand the following, as was said by Basil Valentine: "Lure out the cold dragon his volatile fiery spirit; it shall scorch by its heat and it will cause a steam-bath, one acting so powerfully that snow on the tops of mountains will melt and become water. The result is that the mineral bath is well prepared, and so it provides happiness and health for the King." . . . There is additionally a story, known from Greek authors, about a Dragon that once loved a young girl, a Virgin [*puella*]. Therefore it is not to be wondered that the Philosophers want their dragon to be locked up in a grotto with his Bride-Wife [*cum muliere in una caverna concludi*]. . . . By the Dragon, the elements of Earth and Fire are to be understood, whereas by the Woman we understand the elements of Air and Water [by] taking an idea from Hermes Trismegistus, "The water of the sky, which is found between heaven and earth, is the life of everything; for this water dissolves the body into spirit and revives from the death, and additionally unites Man and Woman with one another." . . . A bit further on he adds: "But in the center of the earth there is a Virgin; she is the true element, the one which is resistant to fire. This fire is the Dragon, about which we are speaking; it goes into the center of the earth. Due to the enormous heat found there, it takes on a fiery glow, and with this glow it burns the Woman." The Woman is volatile water [Mercury]. . . . If one understands this, especially the Woman and the Dragon in their true meaning, therefore, one perceives and comprehends the whole Secret Art [*ac totius ferè artis arcana hoc percepto, intelliguntur*].⁸⁶

The major difference between the actual execution (versus initial conception) of Duchamp's *Large Glass* and that of *Étant donnés . . .*, diversely representing his *artis arcana*, apparently lies in the kind of textual sources employed by the artist. As seems plausible, especially given a Note specifically calling for a decidedly "apparence allégorique" for his penultimate opus magnum, Duchamp had seized upon some obviously much more allegorical published sources than those he previously used. For his initial *grand oeuvre*, the *Large Glass*, we have supposed that Duchamp's published materials would have been much more schematic, meaning mainly motif-oriented and dictionary-like publications; that largely means the kind of explanations provided in Poisson's *Théories et symboles des Alchimistes* and Pernety's *Dictionnaire Mytho-Hermétique*. Nonetheless, following Duchamp's decisive abandonment of the *Large Glass*, in 1923, a wealth of new publications dealing with Alchemy had appeared in print. Most of these were, however, largely interpretive—and perhaps their appearance at this time owes something to the overt interest of the Surrealists, à la Breton, in such hermetic materials.⁸⁷

As I now believe, for the forthcoming composition of *Étant donnés . . .* the decisive year becomes 1928, for this is when the first French translation of a truly central, alchemical-allegorical primary source appears in

print: the *Chymische Hochzeit: Christianus Rosencreus, Anno 1459* ("Christian Rosenkrantz's Alchemical Wedding," 1616) by Johann-Valentine Andreae.⁸⁸ In any event, this was yet *another* alchemical classic—besides Maier's *Atalanta Fugiens*—that had already been approvingly cited, and also directly quoted from in Walter Arensberg's abstruse study of *The Shakespearean Mystery*, published in 1928. Accordingly, the hermetic scenario in the *Chymische Hochzeit* was evidently known sometime *before* that date to Duchamp's American patron and esoteric collaborator. But Duchamp could have known Andreae's *Alchemical Wedding* long before, in 1913, when he was himself scouring the esoteric holdings of the Bibliothèque Ste. Geneviève in Paris. In any event, Duchamp's intimate familiarity with this work *before* 1914 now seems very likely. This conclusion arises particularly in the light of numerous Duchampian motifs appearing in the Notes for the *Large Glass* and directly corresponding to picturesque alchemical topoi appearing in our forthcoming quotations from the acclaimed text of the *Alchemical Wedding*. Also to be quoted here is a version published by Walter Arensberg, who certainly would have made this esoteric literary and artistic masterpiece known to Duchamp in or not long after 1915.

A brief resumé of the fairly well-known scenario of Andreae's *Chymische Hochzeit*, a text *d'apparence allégorique*, may be now given.⁸⁹ The allegory impelling the arrangement of the "Alchemical Wedding of Christian Rosenkreutz" (which was certainly not composed in 1459) is seven-fold, as based upon the standard hermetic topos of a *septimana philosophica*, or alchemist's seven-day workweek of primordial recreation. Accordingly, this celebrated *roman à clé hermétique* was composed in seven chapters, each conforming to the actions belonging to one symbolic "Day." Each Hermetic Day, in fact, marks the further progress of Rosenkreutz (or "Rosy Cross") through the labyrinthine "Castle of the Bridegroom." The seven-part sequence fittingly begins, just like Duchamp's final opus (see fig. 26), at the Outer Gates (see fig. 28). These portals are described as being "regal, carved with many wonderful images and objects." Like so many of Duchamp's works, they bear enigmatic inscriptions, including *Procul hinc, procul ite prophani!* ("Distance yourselves from here, you who are uninitiated!"). Another symbolic portal, "a great iron door" (discovered on Day Five), bears a rather different inscription: *Hie lygt begraben Venus, dye schön Fraw, so manchen hoen Man umb Glück, Ehr, Segen, und Wolfart gebracht hatt* ("Here lies buried Venus, the beautiful woman, the one who has brought down so many a great man, has undone his fortune, his honor, luck and welfare").

Passing "through a very dark passage" lying immediately behind this provocative Venusian inscription, Rosenkreutz and his stunned companions encounter a "vault which had no light but that of some enormous carbuncles." Once his eyes become accustomed to the stygian darkness of the chamber, Rosenkreutz "saw a rich bed, ready-made, hung about with fine curtains." Parting one of the draperies, to his great amazement,

There I beheld the Lady Venus, quite naked, lying there in such magnificence and beauty that I was paralyzed. To this day, I do not know whether it was a statue or a dead person lying there, for she was completely still and I dared not touch her. Then she was covered up again, and the curtain was drawn back. I still had her in my mind's eye—until I noticed a tablet behind the bed, on which was written: *Wan die Frutch meynes baums wyrnt vollends verschmelzen, werde ych aufwachen und eyn muter seyn eynes konygs* [Once the fruits from my tree becomes completely melted, then I shall awake to become the mother of a King].

Throughout the colorful allegory, Rosenkreutz's ubiquitous spiritual guide is "The Virgin" —"a wonderfully beautiful female figure, dressed all in blue"—and, on the Fourth Day, when he asks her name, he is answered by a riddle, the tricky solution of which (as later worked out by the philosopher Gottfried von Leibnitz) is "ALCHYMIA." Once past the Outer Gates, on the Second Day, Rosenkreutz finds himself on a road leading to the castle, and this meandering path "was closed on both sides by high walls and planted with all sorts of beautiful fruit-trees." Now he finds that his guide, the Virgin, has lit his way "with a bright torch." The vista unfolding before his eyes proves to be "so splendid and artistic to behold that I lingered more than I should have. But eventually, and after I had learned enough and received useful advice," at each stage or passage, he presses onwards in his symbolic journey.

On the Third Day, Rosenkreutz comes to the magnificent Garden, which, as he observed, "was not particularly ornamental, but I was delighted with the way the trees were set out in rank and file. A fine Fountain was also running there, decorated with wonderful pictures and inscriptions, also with strange symbols—which, God willing, I will explain in a future book." One of the inscriptions placed on this centrally situated Fountain reads: *Dei consilio, artisque adminiculo, medicina salubris factus hic fluo. Bibat ex me, qui potest: lavet, qui vult; turbet, qui audet. Bibite fratres, et vivite* In English this means: "From God's counsel and with the support of art, here I have made flow a healing medicine. Who is enabled may drink from me: He who wishes to do so may wash himself, and he who dares may stir my waters. Drink, my brothers, so that you may live forever" (see figs. 18, 19).

Other diurnal stages, or spiritually accessional passages, take Rosenkreutz through the Dining Hall, the Library, the Wedding Hall, the House of the Sun, and the itinerary ends in a subterranean Chamber of Venus. On Day Four, various gorgeous Sisters of Rosenkreutz's Virgin-Guide present themselves before a host of eager Bachelor-Suitors, and the Sisters ask of their Virgin-President, "if, by your permission, we may make these gentlemen our bed-fellows, choosing them by lot." In short, "we let chance decide who should sleep with whom. . . . We will see how [only] chance pairs us [and how] we should mingle with one another in a ring." It is all, nonetheless, just a joke: the Bachelors do not get to have sexual sport with the beautiful maidens after all. There is at this point no sexual consummation.

As Rosenkreutz wryly observes with a certain measure of sangfroid, “we had all been thoroughly foxed . . . and we had to be reconciled with the Virgin’s practical joke.” Immediately following this sexual practical joke, “chance pairs us,” the frustrated Bachelors must witness a play within in a play, and,

In the third scene of this act, the King had a maiden led out and made to be stripped entirely naked, and bound her to a pillar on a rough wooden scaffold, had her well whipped, and finally condemned her to death. This scene was so pitiful to see that many eyes ran over. Then the maiden was thrust naked into the dungeon to await her death, which was to be by poison. It did not kill her, however, but left her completely leprous. So this act was largely tragic.

The culminating and wholly symbolical Wedding-Execution (see fig. 29) of “young King and his Bride” takes place on Day Six, and the purpose expressed for this *coniunctio oppositorum* is that “so may we, too, through the flame of love and with joy, shall unite them once again.” The *mise-en-scène* is in a “chamber which was rectangular, five times as long as it was broad.” Towards the far end, “it had a great apse, like a portal, in which there stood in a circle three royal thrones.” The arrangement of the chamber is rather spectacular, and more than just a bit like Duchamp’s brightly lit *sancta sanctorum* (fig. 25):

There was nothing in this room but plain windows, and between each pair of them was a door, which concealed nothing but a great polished mirror. These windows and mirrors were placed opposite each other for an optical effect, which became such that when the sun—now shining more brightly than usual—met just one of the doors, nothing but the sun was visible throughout the whole room, so long as the window facing the sun was open, and the doors in front of the mirrors likewise. . . . Here I must say that in this mirroring I beheld the most wonderful thing that Nature ever brought to light, for everywhere there were [reflected] suns.

After a bit, “we observed the third conjunction, and it was signalled [like all the others] by the clock.” At this point,

Our work was as follows: we had to saturate the ashes with our previously prepared water until they became a thin paste. Then we set the material on the fire until it was well heated. While it was hot, we poured it out into two little forms or molds, and let it cool slightly. . . . We opened up the molds [seeming like Duchamp’s “*moules mâliques*”], and there we beheld two beautiful, bright and almost transparent images, such as human eyes have never seen, of a little boy and girl [the infant King and his Bride], each only four inches long. What amazed me the most was that they were not hard, but as soft and flesh-like as any human being. . . .

Whereas they had started out tiny, now they grew more beautiful in proportion to their size. Would that all painters could have been here, to be ashamed of their art in the face of these creations of Nature! . . . Once fully grown, both had curly golden-yellow hair. The image of Venus was nothing to them. But there was no natural warmth there, no feeling: they were dead images, yet lively and natural in color. . . . A double-bed was set up and prepared for them, on which the wrapped bodies [of the King and his Bride] were placed. They were taken out of their coverings, laid neatly side by side, and left to sleep a good while with the curtains drawn. . . . Thus, the dead bodies would be brought back to life. Meanwhile, we sat silently waiting for our couple to awaken, which took place after about half an hour. Now cheeky Cupid [Eros] came in again and flew in under the bed-curtain and pestered them until they awoke [and made heated, alchemical love].⁹⁰

The allegory ends on Day Seven with Rosenkreutz's somewhat baleful realization that the rest of his life would be spent in "gate-keeping," that "I would have to spend the rest of my life beneath the gate."

As is so often the case with publications belonging to the Esoteric Tradition, our author, the pseudo-Rosenkreutz, was merely working from materials and motifs made already familiar to him by previous publications. In fact, much of the symbolic material belonging in 1616 to the *Chemical Wedding* was prefigured, some five years earlier, by nine elaborately captioned engravings (in addition to a decorative title page and an inscribed portrait of the author) appearing in Heinrich Khunrath's "Amphitheatre of Eternal Wisdom" (*Amphitheatrum Sapientiae Aeternae, solius verae Christiano-Kabalisticum, Divino-Magium, nec non Physico-Chymicum, Terriumum Catholicon*, 1609).⁹¹ (This work, incidentally, was easily available to Duchamp before 1914—in either Latin or in French—in the collections of the Bibliothèque Ste. Geneviève.) Following the frontispiece, Khunrath's engravings depict, respectively, "2. The First Stage of the Great Work," "3. The Journey to the Heights," "4. The Castle of the Mysteries," "5. The Word of the Mysteries," "6. The Defense of the Mysteries," "7. The Philosophical Androgyne," "8. The Macrocosmic Aspect of the Great Work," and, finally, "9. The Ultimate Goal."

For our purposes, however, the most interesting illustration in the *Amphitheatrum Sapientiae Aeternae* is the heavily inscribed first plate, depicting the seven symbolic steps leading up to a *Porta Amphitheatri Sapientiae Aeternae*, or "Gate to the Amphitheatre of Eternal Wisdom" (fig. 30; see also fig. 26). Various men dressed as scholars, perhaps even as hermetic *célibataires*, stand either before or within the cavernlike gateway. These apprentice Adepts tentatively move forwards and upwards, pass through a metaphorical spiritual darkness, and gradually ascend towards a shining but still distant figurative "light at the end of the tunnel."⁹² The Latin inscription put on the left face

of the portal announces the meaning of the situation: "Indeed it is a mystery, one truly divine, which will entice all observers, especially the innermost mystery, for this is what will rightly summon their wonder and love." The inscription placed to the right side reads, "God had given all things for him rightly to know, so to have power and to be." Uniting both messages is another, one which we have already seen literally taken up in the *Alchemical Wedding*: "Procul hinc, procul ite prophani!"

Besides studying the motif in, equally, the *Chymische Hochzeit* or in the *Amphitheatrum*, Duchamp could have also become quite familiar with an often replayed hermetic scenario in yet another publication, the wholly allegorical "Parabola" (1625) composed by Hinricus Madathanus Theosophus (aka Adrian von Mynsicht, ca. 1590–1638). Among its various republications, it also happened to appear in the *Musaeum Hermeticum reformatum et amplificatum* (1677).⁹³ This was a celebrated anthology that Duchamp, following the frequent recommendations of Albert Poisson, may have actually consulted (see figs. 8, 9), and an English translation, which was surely known to if not owned by Walter Arensberg, appeared in 1893, with yet another following in 1917.⁹⁴

Whatever its published variant, once again we encounter a peripatetic traveler in search of ever elusive Hermetic Wisdom. He initially departs "upon a narrow footpath, very rough, untrodden, difficult and overgrown with so many bushes and brambles, so that it was easy to see the path was very seldom used." At length, he comes "to a lovely meadow, encircled by beautiful fruit-laden trees, and it was called by the inhabitants, the Field of the Blessed." Not long after, he "saw a wall encircling a great garden [*murus quidam, qui hortum vicinum cingebat*]." Beyond this, our traveller also comes upon "a great water-mill [*hydromylam*], built within stone walls," where he also sees "the water-wheels [*tympana*] to my left." Madathanus' description of the "great garden," particularly as it makes prominent mention of a stoutly closed gate with a peephole-like aperture, seems the very source of Duchamp's very similar motif in *Étant donnés* . . . (fig. 26). According to our indefatigable hermetic journeyer,

As I now went toward the garden-gates, some looked at me sourly, and I feared that they would hinder me in the fulfillment of my intentions. Others, however, said, "See, he wishes to go into the garden; but we ourselves, who worked for so long in its service, we have never entered it [*nunquam in illum intromissi sumus*]. We shall laugh at him if he blunders." But I paid no attention to them, for I knew the plan of the garden better than they, even though I have never been in it, and I went straight up to the gate. This was locked fast, and one could not discover even a key-hole from the outside. But in the gate I saw a tiny round hole [*foramen*, a peephole], which one could not distinguish with uninitiated eyes [*vulgaribus oculis*], and I thought it was necessary to open the gate

there. Accordingly, I took out my skeleton-key, especially prepared for this purpose, unlocked the gate, and walked in. After I was inside the gate I found even more locked gates, but I unlocked them, all without more difficulty. But I found that I was now in a hallway, as if it were in a well-built house, about six feet wide and twenty long and covered with a ceiling. And although the other gates were still locked [*portae adhuc occlusae*], I could see through them sufficiently and into the garden, just as soon as the first gate was opened.⁹⁵

Once safely situated inside the hermetically sealed garden, our hero comes upon “the most beautiful of all virgins [*virginum omnium formosissimam*], dressed all in white satin, with the most handsome youth, clad in scarlet.” The gorgeous Virgin informs the traveller that “now we must leave this lovely garden, and this is because we wish to enter into our bedroom in order to consummate our love—*ut amori nostro satisfaciamus*.” Her expressed wish is that they be immediately united in copulation [*copulandi estis*]. Once inside, the traveler sees “our scarlet-clad Bridegroom came to his dear Bride,” and, somewhat aghast, further observes how they were speedily locked together in the sexual act: “sponsum cum sposa sua . . . ad copulationem paratissimum prodire.” Then follows another equally alchemical and erotic scenario, complete with those incestuous, brother-sister couplings, with which we are now thoroughly familiar (see chapters 4 to 6):

I do not presently know how these two had sinned. Perhaps they did it as brother and sister [*frater ac soror*], united in love in such a way that they could not be separated, and so they became accused of criminal incest. Rather than being presented with a bridal bed and a brilliant wedding, they were instead forever condemned to a strong and everlasting prison [*ad carceres perpetuos*]. However, because of their noble birth and social station, in order that they could do nothing together in secret, and so that all their doings would always be visible to their guard, their prison was made like a crystal; transparent and clear it was, and round all about, just like a heavenly dome. But before they were placed inside, all the clothing and jewels they wore were taken from them, this was done so that they were made to live together—stripped naked—in their prison [*in tali cubiculo nudi concumbere possent*]. No servant was assigned to serve them, but all their necessities of food and drink—the latter being drawn from the flowing stream mentioned above—were placed inside, and that was just before the door of the of the wedding-chamber [*hyeme cubiculum*] was securely closed. Their cell was locked and sealed with the seal of the [Rosicrucian] Brotherhood, and it was I who was placed on guard outside. And since winter was near, I was ordered to heat the room properly, so they would neither freeze nor burn; under no conditions could they come out of this chamber and escape. . . .

But what happened? Just as soon as they felt the faintest breath of warmth, they embraced each other so lovingly that the like of it will

not be seen again. And they remained clasped together in their flagrant lust [*in hac sui amoris flagrantia*], so much so that the heart of the young Bridegroom eventually disappeared in burning love, and his entire body liquified and melted, and then it flowed down into the arms of his beloved. When the latter, his Bride, who loved him no less than he had loved her, saw this, she began to lament, weeping bitterly over him and, as it were, she buried him in such a flood of tears that one could no longer see what had happened to him. But her lamenting and weeping lasted only for a short time; due to her great heartbreak, she did not wish to live long, and so she died of her own free will [*morti sese dedit*]. . . . Then I noticed quite clearly that the water rose high toward the clouds, collected on the ceiling of the room and, like rain, it descended. . . . I observed that many vapors arose from the earth about evening . . . but during the night they gathered into a lovely and fertile dew, descending very early in the morning . . . until, at last, when the air became light and clear and all the foggy damp weather had passed, then the spirit and the soul of the Bride could no longer remain in the pure air, and then spirit and soul returned into [a new being,] the transfigured, glorified body of the Queen. As soon as the body felt their presence, it instantly became living once again.⁹⁶

In order to rest my case, I must now present to you definitive proof for the assertion that Marcel Duchamp knew this particular hermetic narrative, including its full allegorical significance, even its distinctive, dewy, and foggy, *mise-en-scène*, all appearing in his final tableau. Moreover, not only did Duchamp *know* it, but more importantly he actually *employed* it, and, accordingly, this text must represent, in a three-dimensional replication, the hermetic scenario propelling Duchamp's defiantly illusionistic and supposedly indecipherable final tableau called *Etant donnés* . . . In short, an English version, in fact nearly an exact paraphrase, of the *Parabola* (1625) by Hinricus Madathanus Theosophus had actually been published in 1928 by none other than Walter Arensberg. As recounted by Duchamp's essential patron—especially for the *Large Glass*—and also his covert collaborator in all manner of esoteric maneuvers, the principal purpose of the familiar hermetic love story is to reveal, states Arensberg, “the incestuous character of alchemical marriage.”

More specifically, and just like that lush tableau so laboriously crafted by Marcel Duchamp and called by him *Etant donnés* . . . , this overlooked modernist text by Walter Arensberg likewise illustrates any number of distinct and contextually unique iconographic motifs. Our catalogue of telling text-to-tableau connections begins with an enclosed rose garden containing a broken wall, beyond which one finds a low parapet of broken twigs. Directly behind the wall or fence one quickly espies a gorgeous but childlike “Virgin,” also called a “Bride” and/or a “Sister,” who “sent out rays in all directions,” so attracting her crimson costumed lover, also called a “Bridegroom” and/or her “Brother.” Shortly afterwards, we find the now amorously

inflamed couple cast into a mysterious and darkened nuptial chamber situated behind “the door of their prison [which] was firmly closed and bolted,” and into which no one else “was permitted to enter.” Nonetheless, by means of a covert viewing aperture, henceforth “all their actions and omissions might be immediately known to a guard who was watching.” Also exactly corresponding to Duchamp’s unparalleled assembly of illusionistically rendered (“real”) accessories are various other incidental textual motifs carefully cited by Arensberg, including: a battery of busily rotating waterwheels and complementary machinery for “grinding,” all as carefully placed within a moist, dewy, or rainy, mysteriously illuminated landscape enhanced by “a beautiful rainbow” and simulating both an illusion of dusk and of dawn.

All these elaborately developed incidental effects are essential to a carefully contrived theatrical setting exposing overheated lovers locked together within a large glass vessel, as it were, *le Grand Verre*, their “perpetual prison.” In the guise of Duchamp’s timely verbal “Warning” (*Avertissement*), theirs is “an allegorical appearance” of “several [sexual] collisions, or assaults, seeming rigorously to succeed each other, one after another,” and such an allegorized sexual coupling represents “the sign of the concordance,” or *coincidentia oppositorum*. Trapped metaphorically “in the darkness” within their vitreous prison, two lovers caught in “an instantaneous repose” are revealed at a certain climactic, snapshotlike, “extra-rapid,” moment. This action suddenly exposes to public view oblivious sibling-lovers who are now “stripped of all their clothing,” thus instantaneously capturing the ardent pair reposing upon the connubial couch, in fact, in a state of entire nudity. Caught forever in their incestuous union, so they are left to embrace one another for eternity, “there to weep forever, to repent of, and to atone for their past misdemeanors,” aristocratic blood-lovers, “impossible to separate,” forever locked together and bolted behind a massive portal with a peephole for opportune inspection.

Since this crucial text presents important new physical evidence directly bearing upon the trial of a lionized artist of the century (and especially since it seems to represent *terra incognita* for qualified students of Duchampiana), I feel justified in quoting from it at some length, so making it now a matter of public record. In Arensberg’s version, the familiar erotic tale reads as follows:

In the name of God I walked on in that garden, and after a while I arrived at a little square, each side being about six rods long. It was surrounded by rose-bushes, and the roses therein were very beautiful. There was some rain falling, and the sun shone very bright, and a beautiful rainbow appeared. I was about to turn away from there . . . when I saw that the wall had entirely disappeared, and in its place there was only a low fence of twisted twigs, and near that rose-garden I saw the

most beautiful Virgin, dressed [initially] entirely in white satin, with a most noble-looking Youth, [initially] clothed in scarlet. Their arms were interlocked, and they were carrying fragrant roses in their hands.

I went up to them and asked how they had managed to get across that fence, and the lady answered: "This, my dearly beloved Bridegroom, assisted me in getting over it, and now we will leave the garden and enter our chamber to attend to the duties which our friendship imposes upon us." . . . I then went on and arrived at a mill, the inside of which was built of stones. There were no meal-boxes, nor any implements for grinding, but [by peeping] through the wall I could see several water-wheels turning in the water. I asked an old miller how the grinding was performed, and he told me that the mill-works were at the other side. . . . I was struck with astonishment, for now the wheels, which formerly were to the left of the bridge, were now above it; the water which formerly appeared to be white, was now as black as coal. . . . I then asked the old miller how many water-wheels he had, and he answered, "ten." . . .

Just then I saw our Bridegroom and his Bride again. They were dressed as before, and they approached. They were ready to get married, and I was very glad about it. . . . But when the Bridegroom, in his shining scarlet-colored clothes, and the Bride, in her white satin dress, which sent out rays in all directions, came up to the old men, they married them immediately, and I was very much astonished to see that the Virgin, although she was said to be the mother of her Bridegroom, was still so young that it seemed as if she had just now been born.

I do not know what wicked sin they had committed, except that being Brother and Sister to each other, they were held together by such an ardent love that it was impossible to separate them, and they might perhaps have been accused of incest. However that may be, instead of being put upon the connubial couch, they were sentenced to be put into perpetual prison, there to weep forever, to repent of, and to atone for their past misdemeanors. But in consideration of their high birth and noble estate, a prison was selected for them which was perfectly clear and transparent like a crystal globe [or even a "large glass"]; and this, moreover, served the purpose of exposing them to the public sight, so that in the future they might not be able to do anything whatever in secret, but that all their actions and omissions might be immediately known to the [voyeur-like] guard who was watching.

But, before being put into that [vitreous] prison, they were stripped of all their clothing, and jewels, and the ornaments they had worn, and they were then forced to cohabit in that chamber in a state of entire nudity. Nor was any one permitted to enter their prison to serve them, but after having been provided with the necessary food and with some water taken from the above-described mill-pond, the door of their prison was firmly closed and bolted, and the seal of the faculty was put upon the lock; and they ordered me to watch them and to warm their prison, because the winter was approaching.

All these telling motifs are found compactly presented in Walter Arensberg's self-published *Shakespearean Mystery* (1928), which I now earnestly enjoin all Duchamp scholars to study.⁹⁷ One wonders why they had not done so previously. In short, Arensberg's text represents the faithful mirror image of the cinematic scenario propelling Duchamp's *Étant donnés* . . .—and that alchemical text has now become a matter of public record.

We may now further, but more briefly examine some fragmentary evidence left by Duchamp himself, in this case suggesting his appropriation of yet another passage he found in the *Musaeum Hermeticum*. Risking at this point an accusation of overkill, nonetheless we do so in order definitively to close a case dealing with the exact nature of the published sources evidently explaining a textual *apparence allégorique* that blatantly inspired the alchemical theater of *Étant donnés*. . . . This additional clue points to complementary textual materials that briefly repeat the same themes belonging to the other hermetic texts we have just quoted. Like *Étant donnés* . . . itself, this tantalizing clue only turned up posthumously, among the mass of those Notes by Duchamp that were first published in 1980. In Note 9 of the new batch, which was evidently penned around July 1937 (since it appears upon a piece of hotel stationery from Copenhagen),⁹⁸ the major topics are *Infra mince* and *séparation inframinee*. There is also this brief, but very interesting notation: "moiré—irisés (voir interférences au Palais Découverte)." This translates as "watered-silk—[given the cloudy and/or rainbow color of] iris (see the interference [mentioned] in the Uncovered [or "opened"] Palace)."

As I believe, the last part of this covert reference, "Palais Découverte," specifically refers to another treatise included in the *Museum Hermeticum*, namely the anonymously authored *Introitus apertus, ad Oclusum Regis Palatium*, or, in English, "An Open Entrance to the Closed Palace of the King."⁹⁹ As a model exercise, now one methodically sets about to prove the initial hypothesis (the reader, seeking further "model exercises," may pursue other clues better left in a footnote; see chapter 5, note 85). Besides including a topic of much greater interest to us (later to be quoted, once Duchamp's Note gets properly situated within an "Uncovered-Closed Palace"), this alchemical text does in fact contain an oblique discussion of "watered silk" that is *irisé*, meaning cloudy, or colored like the rainbow, and additionally shown as belonging to "The King." The motif of cloudy colored but glinting silk we initially find in Chapter 24, dealing with "The First Regimen, which is that of Mercury." Here one reads how "when the King has come to the Fountain [see fig. 19], he takes off the golden garment, gives it to Saturn, and enters the bath alone, afterwards receiving from Saturn a robe of black silk [*veste sericam, aurea ad nigram*]." The "interference" referred to by Duchamp must relate to any obstacle put to the emergence of "the spirit, or Mercury, which brings about all the [rain-

bow-like] changes of color [*apparitionem colorum*] . . . and these apparitions gradually intensify until they all be, at last, completed in a black of the deepest dye, which will only manifest itself on the fiftieth day. . . . Union is signalled by the appearance of the black color [*reconciliatur unio in colore*].¹⁰⁰ The more cloudy *irisé* color belongs, however, to “The Regimen of the Moon” (Chapter 27), when “the body passes from blackness to whiteness, and a great variety of colors are observed . . . when you see it all divided into beautiful but very minute grains of silver, like the atoms of the Sun [*instar atomorum Solis*].¹⁰¹ The more specifically rainbowlike *irisé*—literally *iridis*—color itself properly belongs to “The Regimen of Mars” (Chapter 29), which follows the stage when “at last there are exhibited the transitory hues of the Rainbow [*Iridis*] and of the Peacock’s Tail.”¹⁰² If, at any stage, there might occur an “interference” with the chromatic sequences, then any further progress of the *Opus* is definitively frustrated.

In short, Duchamp was again alluding to those color progressions or sequences uniquely belonging to the alchemical *Opus*. Nonetheless, what really interests us here is the demonstration of Duchamp’s apparent familiarity with this particular text—for it also just happens to recount the same kind of allegorical appearance that we now know properly belongs to *Étant donnés* . . . Repeating in his chapter 1 a point made by any number of other alchemical writers, our anonymous author observes that “Gold, then, is the one true principle of purification. . . . This gold is our bridegroom, and it is to be joined through the sexual act to a more crude white gold, which is the female seed [*maritis . . . spermatis foemineo conjungitur . . . utrumque coit*]. Once the two are indissolubly united together, the results constitute our fruitful Hermaphrodite”¹⁰³ (see also figs. 15, 16). More to the allegorical point of the *mise-en-scène* of *Étant donnés* . . . is the following scenario, as given in chapter 6 of the *Introitus apertus, ad Occlusum Regis Palatium*, “Of the Air of the Sages”:

Our air divides the waters. . . . In our work we see extra-central mineral waters, but are unable to see those which, although hidden within, nevertheless have a real existence. They exist, but do not appear until it pleases the Artist [*Artifici placet*, like Duchamp’s “à son gré”]. . . . Our air keeps the extra-central waters from mingling with those at the center. If, through the removal of this impediment, they were enabled to mingle, then their Union would become indissoluble. The water must be purged of its leprous stain by the addition of true Sulphur and then you will have before you the little Fountain [*Fontinam*] whose waters are sacred to the Virgin Diana. A thief is armed with all the malignity of arsenic and is feared and eschewed by the winged youth [*Eros*].

Even though the Central Water is to be his *Sponsa* [Bride], still *Amore* [Love] cannot come to her most ardently—not until the Virgin Diana, with the wings of her doves, purges the poisonous air and so opens a passage through to the bridal chamber. Then the youthful suitor

enters easily through her pores, presently shaking the waters above and stirring up a rude and ruddy cloud. Oh Diana, bring the water in over him, even unto the brightness of the Moon. This is how the darkness upon the face of the abyss shall be dispersed, by the spirit moving within the waters . . . until you may await the birth of the marvellous Child of the Sun, who will come and deliver his brothers from every stain.¹⁰⁴

All the preceding may be taken to constitute further evidence that an alchemical anthology called the *Musaeum Hermeticum* was yet another *bouquin* (old book, or *incunabulum*) that had been frequently handled and studied by Marcel Duchamp.

There is yet another important hermetic clue contained in this same notation, Note 9, making an oblique reference to the *Palais Découverte*. The main subject of Note 9 was “séparation inframince,” and here Duchamp concludes here that “séparation a les deux sens: mâle et femelle.” The idea that “separation contains two senses, male and female” relates to another, much better known notation. Note 52 from the *Large Glass* set, first published in 1934, had coupled the complete title of the work—*La mariée mise à nu par ses célibataires même*—with the concluding observation that “the separation is an operation.” Hence in the narrower sense, for Duchamp *la séparation* represents the significance of *inframince* on the one hand and, in the broader sense, it broadly represents the overall allegorical function of the *Large Glass* itself. As before, Pernety’s *Dictionnaire Mytho-Hermétique* tells us just what all this means:

SEPARATION: This operation [*Séparation*] produces the effects of a dissolution of the body by means of its dissolving agent. This process of separation comes about once the matter starts to turn black; at this point, a separation of the elements begins. Now blackened matter is changed into steam, and now it is the earth which instead becomes water. This water condenses and falls again upon the earth, which it whitens. This whiteness is air. A red stage follows the white one, and now air will become fire. This separation is not at all different from dissolutions of bodies and hardenings of the spirit because all these three operations are really just one, and this happens because nothing can be achieved in the Great Work, which is aimed at a melting of the body without [complementary] hardenings of the spirit. SEPARATE SOUL AND BODY (to): This [*Séparer l’âme du corps*] means, quite simply, the volatilization of matter, and this is done by sublimating it.¹⁰⁵

In sum, this statement by Pernety represents the most succinct synopsis yet known to me that directly pertains to the entirety of a complex scenario of esoteric, but wholly physical operations belonging to the *Large Glass*, such as this scenario was given in the Notes put in a certain *Green Box* well before the outbreak of World War II. In fact—and Duchamp would have loved the

irony of this observation—Pernety's explanation proves to be much more succinct and rather more coherent than are the convoluted explications forthcoming from most of the postmodern exegetes of Duchamp's *Large Glass*. Unquestionably, with *Etant donnés . . .*, the metaphorical circle does close for Duchamp, like an *ourabouros* (see fig. 16).

The artist's posthumous masterpiece must no longer be regarded as an anomaly in his oeuvre; quite to the contrary, it represents an illusionistic but exact mirror image (as a *renvoi miroirique*) to complement the hermetic scenario belonging to a much more celebrated and visually much more relentlessly abstracted *Large Glass*. Although each work has its own complementary alchemical scenario, as seems apparent from the evidential materials just presented in all their textual details, Duchamp's propelling allegorical appearance was intended to be essentially identical for each example. By means of an often repeated hermetic allegory first widely broadcast during the Baroque period, Duchamp succeeded in linking these two Great Works together, as it were, "so lovingly [*amicissime complectebantur*] that the like of it will not be seen again."

So what did Duchamp actually have to say about *l'hermétisme* as such? As it turns out, but exactly as one must expect, precious little. Obviously, since it now seems a *donné* ("given") that Duchamp was quite familiar with Hermeticism, even his silence on the subject was another *donné hermétique*, particularly due to all those repeated admonitions for Alchemists to maintain absolute silence before the profane and the vulgar. One in fact finds only two mentions of the root-word *hermetic* in Duchamp's scattered literary remains. One is most brief indeed, and the other scarcely any more extensive. In Note 105 for the *Large Glass* the artist discusses his interest in "breeding" dust or powders upon a glass, and we have already provided in chapters 4 and 5 a plausible hermetic explanation for this kind of *Élévation de poussière*. In any event, Duchamp states that the results of his painstaking experiments are "four to six months afterwards to be sealed up hermetically." The end product, being "enfermé ensuite hermétiquement," will, says Duchamp, "equal transparency," but "the differences" in transparency are still "to be worked out."

The somewhat more elaborate notational reference to hermetic practices only appeared after the artist's death, in Note 71 of the group published in 1980. Interestingly, the other side of this Note contains the curt injunction to gain time: "Gagner du temps." In the light (*la clarté*) of what immediately follows, that timely reminder might sound a little like "time gained" figuratively against a pursuing posse of art historians. Note 71 begins by discussing the term *clarté* (light, clearness, brightness, gleam, limpidity). What concerns Duchamp here is the "choice of words, where the sense doesn't lead to equivocation." One ought not "confuse this *clarté* with the etymology of the word [*clarté*]." Therefore, one must "avoid etymological analysis and get straight at the real, or present-day, sense of these words."¹⁰⁶ Let us see, for

instance, what Pernety had to say, rather briefly or schematically, about this particular term, “CLARITY [Clarté],” which is in fact potentially “equivocal.” “In the terminology of Hermetic Science,” Pernety succinctly states, “this word [Clarté] stands for the [stage of] whiteness which follows the blackening of the [alchemical] matter in *putrefactio*.”¹⁰⁷

Strictly according to Pernety’s diverse explanations, this term *clarté* is indeed open to “equivocation,” indeed a great deal of it. Why is that? Because Pernety, our indefatigable lexicographer of Hermeticism, provides any number of other, cognate terms describing alchemical “light, clearness, brightness, gleam, limpidity, etc.,” standing in turn “for the whiteness which follows the blackening of the matter in *putrefactio*.” The immediate result is that all those other functional synonyms, around eighty by my count, must similarly be taken into account in order to obtain a “choice of words where the sense does not lead to equivocation.” Those other terms discussed by Pernety, which must be taken into account in order to “se rapprocher du sens actual des mots,” include, among others:

*Blanc-Esprit, Blancheur, Le Blanchir des Philosophes, Chaleur, Conjonction de l'Ame avec le Corps, Corps blanc, Corps le plus voisin, Corps net et pur, Craie blanche, Cygnus, Déalbation, Diane, Eau de Blanchissement, Eau purifiée, Eau qui blanchit la Pierre indienne, Electre, Elixir parfait au blanc, Épouse enrichie des vertus de son Époux, Esprit, Essence, Été, Eve, Femme blanche, Fixer, Fleur de la Sagesse, Fyada, Gomme du Soleil, Gomme des Sages, Gomme Blanche, Hae, Herbe blanche, Hermaphrodite, Huile vive, Inspirer, Joie des Philosophes, Isir, Lait, Latone, Laver au feu, Litharge d'Argent, Lotion, Lucifer, Luminaire, Lune, Magnésie Blanche, Matière Unique des Métaux, Menstrue Blanchi, Mercure Blanc des Sages, Mère de la Pierre, Minière blanche, Miracle de l'Art, Neige, Nettoyer, Occident, Or blanc, Phlègme, Phosphore, Porte-lumière, Pierre de la Lune, Plomb blanc, Poudre de Projection, Poudre Blanche, Queue Blanche du Dragon, Racine de l'Art, Résurrection, Robe Blanche, Savon des Sages, Seb, Sel armoniac, Suc des Lis Blancs, Tartre, Terre blanche feuillée, Terre féconde ou fertile, Terre potentielle, Tinckar, Trésor Incomparable, Vapeur, Zibach, Zuwa, Zoticon, etc.*¹⁰⁸

Obviously, in order to grasp the real sense of the Duchampian *clarté* in the face of such lexical laxness, passing for either heterogeneity or sheer confusion, truly one must, just as Duchamp advised, “avoid etymological analysis and get straight at the real or present-day [versus eighteenth-century] sense of these words.” All this is clearly shown in the cautionary case of Pernety’s characteristic hermetic error, a point which might be illustrated solely by the apt example of only one, potentially multivalent word, *Clarté*. Another term, one which could have just as well served to illustrate Duchamp’s point about hermetic lexical equivocation, is alchemical “Matter” (*Matière*), for which Pernety zealously lists more than six-hundred, usually *outré* synonyms!¹⁰⁹ Simi-

larly, no wonder one has to labor so zealously in order to make some labored sense out of a wholly Duchampian statement like, for instance, “the Bachelor grinds his own chocolate” (see chapter 5).

In order to resolve or to reduce to manageable size the meta-etymological hermetic problem, obviously one needs to introduce any number of different kinds of phraseology, which in practice means that one repeats the same idea under many different names. Having stated that, then all the rest of Duchamp’s Note 71, which was repeated with insignificant changes in his Note 77, now makes perfect sense:

Répéter, comme dans les démonstrations logiques, des membres de phrases entiers pour ne pas tomber dans l’erreur d’hermétisme, que toute idée, la plus trouble, puisse être entendue clairement.

Employer la forme conditionnelle dans le style = Faire intervenir des présents, des imparfaits pour renforcer des démonstrations. Le futur pour donner un ton ironique à la phrase.

Dans des phrases incidentes ou explicatives d’un membre précédent souligner le pronom se rapportant à un nom de ce membre précédent, et souligner aussi ce mot.

Gagner du temps.

In English:

Repeat, as in [the construction of] logical proofs, entire phrases [and do so] in order to avoid falling into the error of Hermeticism [stating] that every idea, even the most obscure, can become clearly understood.

Use the conditional form in the [expository] style. Introduce some present [tenses], some imperfect [tenses] in order to reinforce the proofs. The future [tense] [functions] to give an ironic tone to the statement.

In parenthetical clauses, or in those explaining a phrase preceding, underline the pronoun which refers to the noun in that preceding phrase, and also underline that word.

To gain time . . .

With slight changes, the contents of Note 71 were reiterated in Duchamp’s Note 77, where it is shown to be worthwhile, again by citing the troublesome example of *clarté*, to “avoid etymological research, and to approximate the current meaning of the words; [to do so] use neologisms and slang.” As before, the purpose of such injunctions is clear: “Repeat, as in logical proofs, entire phrases to keep from falling into Hermeticism, [asserting] that every idea, even the most obscure, can be clearly understood.”

“Alchemy” means many things to as many people. Our task is, of course, to suggest what it *might* have meant to Marcel Duchamp. As we have every reason to suppose, for Duchamp one of the most accessible explanations of the accepted meanings of “l’Alchimie” in France was provided by

Dom Antoine-Joseph Pernety. We may close down this chapter, likewise this trial, with Pernety's observation that:

Nearly all the [Alchemical] Authors do differ on the definition of this Hermetic Science. This happens since there are definitions of Alchemy of two kinds: one is true and the other false. The first one was defined (by Denis Zacheire) as a branch of Natural Philosophy that teaches how to make metals from earth by imitating the operations of Nature upon the earth as best as one can. Paracelsus said that *l'Alchymie* is a science which shows you how to transmute the different kinds of metals, one from another. Nevertheless, the correct definition is taken from the best Authors, and those are the ones who speak of true Alchemy, and their definition is this: Alchemy is a science and the art of making a fermentative powder which transmutes imperfect metals into gold, serving as the universal remedy for all the natural illness befalling men, animals and plants. . . . True Alchemy consists of perfecting metals and directing them towards health by employing the agents of Nature and by imitating their operations. From a vile material in scarce quantity, Alchemy makes a most precious thing. . . . The goal of true Alchemy is the rapid healing of all the maladies which afflict mankind.¹¹⁰

As was common to nearly all the alchemical writers, Pernety calls the practitioners of Alchemy *artistes*; unfortunately, as he reminds us, "there are few Artists who are true Alchemists." Even more unfortunately, there are many more, Pernety observes, who only work according to the principles of "la Chymie vulgaire." For the real Hermetic Artists, above all else, "the prototype or model for the hermetic Art of Alchemy," asserts Pernety, "is none other than Nature herself." These authentic practitioners, we are additionally told, "only put into their art innumerable sophistications; it is this kind of practice that furnishes all those impostors, who, after ruining themselves, then seek to ruin others." To the contrary, the true Artist-Alchemists, says Pernety (as does nearly every other alchemical writer), "will never sell their secrets; they only communicate their knowledge to a few friends, those few whom they believe to be worthy of possessing it." As nearly all the Alchemists remark, also including Albert Poisson, "Hermetic treatises are obscure to the reader, especially as alchemical theories remain generally unknown; they additionally operated through enigmas."¹¹¹ In short, *were* Duchamp an Artist-Alchemist—and, according to various detailed but often necessarily circumstantial evidence assembled here, he most likely *was* one—then he never would have admitted to his real hermetic and hidden vocation. In fact, Duchamp never actually called himself either an artist or an alchemist. He just "breathed."

To repeat another point, Alchemy is only one, but a particularly florid (*épanouissante*) branch springing from that *arbor philosophorum* that we have called the Esoteric Tradition. And once again we may repeat the larger

thesis: unquestionably, this endlessly fertile Esoteric Tradition—here shown to embrace such typically diverse Duchampian pursuits as Hermeticism, Chance, *jeux des mots et calembours*, and, above all, the Fourth Dimension—must have been the fundamental *raison d'être* of Duchamp's early career, from 1910 to 1923. As we also seem to have demonstrated sufficiently, Alchemy finally, and I think unquestionably, provided the wholly esoteric basis of his last masterpiece, *Etant donnés . . .*, mainly occupying Duchamp's interests from around 1944 until 1968, the year of his death. Referring back to the first two chapters, you will find mention of all the historical conditions and youthful cultural impulses—called, in forensic science, “opportunity,” “means,” and “motivation”¹¹²—that one requires to answer the initial question of *why* Duchamp pursued these lifelong esoteric endeavors. A broader conclusion, extending well beyond the Duchamp case, is that the roots of modernist culture in Europe require a new line of historical inquiry, *Occultism*.

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 the prosecution rests

Dieter Daniels poses two provocative questions regarding the Duchamp editorial avalanche: “Why have so many commentaries been called for regarding so few artworks?” “Why exactly has Duchamp become the object of so many—and so contradictory—theories?”¹ Why, indeed? Briefly put, any body’s artwork is the sum of its essential parts: *form*, or visible expression, and *content*, the expression of intended meaning (from complicated narration to rudimentary mood). In the case of Duchamp’s meaning(s), the sheer diversity of published opinion only indicates consensus in ignorance. As for his wholly optical (“retinal”) benefits, few scribes press the perennial aesthetic issues, such irrelevancies as beauty, grandeur, elegance, vicarious pleasure, and eloquence. And please note that T. S. Eliot never wrote: “The women come and go / Speaking of Duchamp.” Why don’t we just attribute all this earnest exegetical endeavor (mine included) to misdirected energies, human folly? After all, unquestionably there are much more pressing problems presently facing the world and its harassed inhabitants; those dilemmas really do require a definitive answer—and Duchamp does not.

From the postmodernist (versus orthodox modernist) perspective, probably the overriding reason for “so many, and so contradictory, commentaries” is simply this, *celebrity* (from the Latin *celebritas*, meaning “the multitudes” as much as “fame”).² Fame generates commentary: the greater the former, the more multitudinous the latter. A “celebrity” has been identified as one who is “famous for being famous,”³ also meaning that the celebrants need not have a clue what their hero or heroine actually did, let alone thought. As a culturally superior “star” (*vedette, pas étoile*), Marcel Duchamp is celebrated among an intelligentsia mostly spawned by the haute bourgeoisie; their social inferiors, so designated, posthumously fancy the likes of Elvis and Princess

Di. Overall, it appears that some thaumaturgic cultural icons function better dead than they ever did alive.

Now, at the very end of my own earnest editorial labors, I may reveal a professional bias, my unique mental quirk, my vocational secret. Initially trained as a painter, even modestly exhibited as such, I have—like Duchamp—typically played with formal innovations and, especially, covertly pursued iconographic novelties, including the esoteric kind acquired by minimal bookish research. To me, therefore, these gambits are rather banal, in no way mysterious nor worthy of all that much heavy breathing. Having so often done the artful-dodger trick myself, I intuitively recognize the routines characterizing yet another ambitious practitioner. Others, who are vocationally trained as bookish scholars, perhaps do not so easily recognize the standard modernist art-school effort, even though that has been routinely performed for around a century or so.

If perchance you have never often deftly wielded a paintbrush, then “making Art” (uppercase) probably seems a uniquely praiseworthy *mystère*, “like magic.” (Similarly, the cargo cults of Papua have a rather different understanding of the function and purposes of international commerce and geopolitics.) Vocationally endowed with an insider’s insights (like Harry Houdini), I’ve become ever more astonished by the recent, near universal adulation of The Artist—especially Duchamp—professed as much by the laity as by well-read *littérateurs* (*chacun a son goût, même le vôtre*). However, in spite of a spate of postmodernist hagiography, Duchamp was just an earthling artist (lowercase), not the otherworldly product of *parthenogenesis*, as was Jesus Christ (to whom he would never have likened himself), and as was the “Hermaphrodite of the Alchemists” (to whom he evidently *did* liken himself: fig. 20).

After having read their writings, however reluctantly, you now recognize that modern Occultists live in a world of largely unchecked speculation and imagination. As we right-thinking scholars recognize, theirs is a world without a hard-headed, factual foundation. For them, however, there is no question but that they are made privy to an “unseen world,” *l’au delà*, a Cosmos mysteriously moved by “invisible energies.” Concerning that *monde inconnu*, for them an esoteric *donné*, the principal questions appear to be: “How far is it?” “Is there convenient parking?” “How late is it open?” Modern Occultists, on the positive side, do generally expound a strong social conscience, stress open-mindedness, and entertain strong beliefs in intuitive thinking. A typical statement (in this case, voiced by Shirley MacLaine) is: “We’re all creating our own reality.” Alas, as we also know from reading their writings, the same holds true for most modernist creative artists of the avant-garde persuasion.

There is an unspoken sociological aspect to this instance of historical forgetfulness: *class* (which is mostly determined by one’s post-natal zip code).⁴

Today, Occultists are routinely disparaged by the superior classes, the haute bourgeoisie, to which I belong, and which also includes most of the widely read art critics and influential art historians.⁵ Today, if at all mentioned by accredited scholars, the True Believers are implicitly dismissed as belonging to the inferior classes, the ones who now posthumously celebrate the tawdry likes of Elvis and Princess Di. A century ago, during Duchamp's youth, the situation was reversed. Then, the fervent subscribers to esoteric absurdities included such distinguished upper-class figures as, among many other acknowledged worthies, Sir William Crookes, Victor Hugo, Sir Arthur Conan Doyle, August Strindberg, Sir Oliver Lodge, Thomas Edison, William James, and the guiding lights of the Society for Psychical Research (SPR), founded in England in 1882.⁶

A century ago, the main supporters of the Esoteric Tradition most likely belonged to the social elite. Today, the allegiance of the haute bourgeoisie has shifted, in fact almost reversed itself; now they mostly worship at the altar of modernist artistic creativity, innovative imagination, sudden inspiration, individualistic intuition, all of which are unquestionably praiseworthy psychic gifts. Alas, since World War I, the cultural prestige once unquestionably enjoyed by Occultism has become conveniently forgotten, likewise its actual physical effects upon the arts, both literary and pictorial. As a result, so also are forgotten the cogent reasons why, nearly a century ago, Marcel Duchamp would have found his thoughtfully chosen hermetic enterprise a worthwhile, "classy" endeavor. Given the evidence so laboriously retrieved and presented here, the final conclusion becomes this: we must not impose anachronistic postmodernist cultural expectations upon early modernist cultural values, however impure those may now often appear. If we do so, historical reality is liable to become distorted by anachronistic mythmaking.

Also mostly overlooked, there is a larger cultural context complementing the Duchamp phenomenon, the one that explains what may be called the contemporary "Artist-Envy Syndrome." Whereas terms like "creativity," "imagination," and "inspiration," all describe the desirable attributes of a praiseworthy *individual*, that "construct" is itself a postmodernist bugaboo since, as structuralist theory would now have it, "The author is dead." But postmodernism is a historical unicum: it is the first world culture to be driven by the electronic mass media, also giving us the *celebrity*, the "famous individual," the one whom ordinary folk wish to emulate. In mass culture there are naturally fewer and fewer "individuals." Now, as is only fitting, the masses, qua "masses," generally perceive themselves to lack creativity, emotional and intellectual wholeness, a reflective and self-fashioned life, individuality itself. And that is, of course, the main reason why we now have so much therapeutic New Age wisdom (i.e., Occultism) offered to us as a mass-market cure for these perceived spiritual infirmities.

The physical evidence testifying to such mass psychic impoverishment is ubiquitous in the postmodernist mass media. Since the 1980s, advertising

has sought to connect specific consumer desires to larger, culturally shaped desires: individual identity, freedom, self-expression, maybe love itself. Now, these emotional compulsions are given concrete shape, also instant relief: a shiny automobile speeding through an open landscape; correctly up-scale clothing and fashion accessories; appropriate beverages and culinary rituals; in short, “style.”⁷ Advertisers seem more alert than the rest of us: they largely ignore the physical product and instead focus upon the consumer’s psychic lacunae, those propelling a burning need for self-advertisement. The hucksters manufacture ready-made “images,” and these we consume, *en masse*.⁸

Representing narcissism in equal measure, currently hot-button academic issues—postmodernist identity and authenticity, also (of course!) gender and race—have generated an awful lot of mostly gauche self-portraiture called “performance art.”⁹ Call it Theory or call it Art, such elitist exercises typically confuse objective cultural analysis with subjective advocacy; you may also call it Style or, if you wish, just Attitude. High or low, the cultural phenomena historically defining the closing decades of our millennium, a truly unique age that posthumously appointed Duchamp as Aesthetic Commissar, point to a common vanishing point: an adman’s wet dream! Someone has even named our frantic *fin de siècle*: the “Me Decades.” The implicit idea: if there were no clamoring masses, then there would be no *mass* media, hence no mass need for Me. Ms. MacLaine was right on the coeval cultural mark: “We’re all creating our own reality.” We eagerly do so, just like the pioneering modern Artists and Occultists, who first showed us how the needful psychic-stylistic trick was done. In so doing, they have earned their cultural status, their celebrity, their historical place in the uniquely modernist scheme of things.

As the late Carl Sagan often stated, “Extraordinary claims require extraordinary evidence.” Was this particular “Artist of the Century”—or any other one—worth all this labored thought and scholarly travail? In this case, equally “extraordinary” are the claims that: 1) Marcel Duchamp *did* systematically employ hermetic references and alchemical iconography in creating his artworks; and/or that 2) Marcel Duchamp was *never* influenced by Alchemy. Both positions are, therefore, obligated to produce their “extraordinary evidence.” And here you have just been presented with concrete proof, heaps of it, repeatedly substantiating the first of these two extraordinary art-historical arguments.

Viewed collectively, the preceding chapters clearly pertain to a familiar literary genre called “scholarship.” Due however to certain conditions unique to this particular investigation, here specifically treated as a “case,” another familiar literary staple necessarily informs the operations of this narrative, the detective story. As we should all know, the basic trinity of all serious police investigation comprises the following elements: 1) the perpetrators’ confessions, 2) corroborating statements by witnesses, and, most reliable, 3)

physical evidence.¹⁰ But in the Duchamp case (and as was admitted at the outset of this investigation), elements one and two are largely missing from the historical record. Nonetheless, this tenacious scholar—being the kind who, if he does his job right, has done overtime work as both precinct detective and district attorney—has composed this extensive brief in order now to present it to you, the figurative jury. And now, one way or the other, it is your job to render a verdict.

Admittedly, there is another, third, claim, that is anything but extraordinary, instead rather banal. It goes like this: I believe *this*, and you believe *that*—and, according to the historical record, nobody's beliefs have ever reversed somebody else's. So a history of the world's religions—or even better, the various narrative histories of religious warfare through the ages—would seem to prove that point. It is all just as Joseph Prudhomme had affirmed so long ago: “That is my opinion and, what is more, I share it.” Ergo, regardless of the evidence presented here, the Duchamp editorial avalanche will press on.

After so much investigative effort on the part of this determined scholar, the reader likely will ask him to provide his sweeping summary of the real “meaning” of Duchamp's career. I respectfully decline the request, and instead will merely repeat another comment made by the considerably celebrated artist. As we recall, when asked by an American reporter in 1966 whether a retrospective exhibition of his artistic career perhaps represented a “gigantic leg-pull,” Duchamp laughed and suggested, “Yes, perhaps it is just one big joke.”¹¹ If so (and that is itself a very big “if”), and perhaps even more to his delight, then the elaborate “joke” that was Duchamp's Great Work reeled in the gullible art-historical establishment, “hook, line and sinker.” They have been fooled before. The proof for that includes some notorious art forgeries wrought in modern times.¹²

The prosecution rests.

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notes

INTRODUCTION

1. As is apparent from this bibliography, the bulk of mostly enthusiastic writing about Duchamp has been and continues to be generated in the U.S. In Duchamp's homeland, France, a healthy measure of Gallic skepticism still prevails. A generous subvention, allowing for publication of the complete text of this monograph, was kindly provided by the H.M.S. Phake-Potter Literary Foundation (see Bibliography).

2. Kuenzli and Naumann. For the history of Duchamp's nearly unprecedented apotheosis to celebrity status, from ca. 1960–1995, see Daniels, 158–65 (“Der späte Ruhm”); Jones, especially chapters 2 and 3. For details on the early stages of Duchamp's rise to fame in America, ca. 1950 and after, see Roth, “MD and America,” 102ff.

3. Jones, 49; see also Daniels, 233ff. (“Theoretische Umkreisung”): “Vorläufiges Resümee: Der Fall Duchamp entwickelt sich zu einem Methodenparadigma für die Kunstgeschichte des 20. Jahrhunderts” (238).

4. The first sharp attack of the alchemical interpretation was mounted in 1976 by Jean Clair, “La fortune critique de MD” (an eight-page essay) and much extended in 1992 by Dieter Daniels, 238–57 (“Die Suche nach dem Schlüssel: zum Beispiel Alchemie”).

5. So designated by Octavio Paz; see his *MD, or the Castle of Purity*.

6. Lebel, 73.

7. Teeny's and Paul's denials appear in Ramírez, *Duchamp*, 301–02 n. 7.

8. What follows is quoted as transcribed in de Duve, *Definitively Unfinished MD*, 69–82, 463.

9. For a sequential exposure of these purposive deceptions, particularly the central myths of Duchamp's “disinterestedness,” “indifference,” and “withdrawal,” see Jones, 66–103.

10. For the influence exerted by Burnham's esoteric (and erratic) interpretations of Duchamp's work among avant-garde artists, although not within the scholarly community, see Roth, “MD and America,” 204–15. On the other hand, for a doctoral dissertation considerably extending Burnham's kabbalistic thesis, see Doepel, “Arcane Symbolism.”

11. Duve, *Definitively Unfinished MD*, 168.

12. Burnham, 89. For a scholarly study of the secretive tradition overall, see Eamon.

13. Duchamp, as quoted in Tomkins, *The Bride and the Bachelors*, 18.

14. See Henderson, *Duchamp in Context*, 231–32 (“A Note on the Construction of Duchamp as Alchemist”).

15. *Ibid.*, xxii, 180.

16. Daniels, 255: “Alle [dieser] Autoren, außer Ulf Linde [to be cited here later], operieren jedoch nur mit formalen, ikonographischen Vergleichen, ohne nach den Duchamp historisch zugänglichen Quellen oder Einflüssen zu fragen [:] müßte man sowohl überzeugende Parallelen inhaltlicher Art als auch präzise Belege angeben können.”

17. *Ibid.*, 256: “Aber mit Sicherheit läßt sich in der Alchemie *nicht* der universelle Schlüssel zu seinem Werk finden” (emphasis mine); Moffitt’s work is cited as a typical “Beispiel” of such earnest but useless approaches (345 n. 75).

18. For a typical Symbolist-era summation (likely known to Duchamp) of the strictly modernist “rapports de l’Alchimie et de la Kabale,” see Jollivet-Castelot, *Comment on devient alchimiste*, 49–58; for, likewise (à la Duchamp), a modernist “Le Tarot Alchimique,” see 59–70.

19. Stauffer letter, in Gough-Cooper and Caumont, *Ephemerides*, August 19, 1959.

20. Another “ambiguous reply,” recently newsworthy, is President Bill Clinton’s self-serving definition of *fellatio* as “not sex” (but he was only a politician, not an artist-chemist).

21. Cabanne, *Brothers Duchamp*, 101.

22. Gough-Cooper and Caumont, *Ephemerides*, October 2, 1958.

23. Gough-Cooper and Caumont, *Ephemerides*, June 16, 1966.

24. Matisse, “Some More Nonsense,” 76–82.

25. Teeny Duchamp, in Daniels, 269.

26. See Daniels, 271, 347 n. 105; for the *White Box*, see Duchamp, *L’Infinifif*.

27. All citations to Duchamp’s works, such as “(MD-134),” refer to the standard catalogue raisonné compiled by Jean Clair in 1977.

28. Tomkins, *Duchamp*, 249 (with illustration).

29. These confessional features—otherwise avoided in the standard Duchamp literature—are exposed in Brilliant, 171–74 (fig. 85; also illustrated in color on his book cover). Brilliant does not, however, expose the specific connection to be drawn between the “\$2,000 REWARD” motto and Dreier’s recent purchase of the *Large Glass*.

30. Gough-Cooper and Caumont, *Ephemerides*, December 16, 1954.

31. Poisson, *Théories et Symboles des Alchimistes*, 3.

32. Smithson, quoted in Roth, “Smithson on Duchamp,” 47.

33. Graham, *Conversations*, 3 (and I thank the author for sending me this incunabulum).

34. I owe this information to Alan Jutzi (Rare Books Collection, Huntington Library, San Marino, Cal.), who has catalogued the individual titles found in Arensberg’s extensive library (formerly held by the Francis Bacon Library, Claremont, Cal.), and who has generously sent me examples of these essential works.

35. For what constitutes proper legal evidence, see Heller.

36. In this instance, one particularly has in mind Erwin Panofsky’s classic investigation of *The Life and Art of Albrecht Dürer* (1955); for the procedures employed in iconological research, see Kaemmerling.

CHAPTER I

1. Saint-Simon, in J. Hess, 5.
2. Laverdant, in Poggioli, 9.
3. For this contemporary art-marketing terminology, and much more, see

Jensen.

4. For the most likely purchase date of Kandinsky's book by MD, see Gough-Cooper and Caumont, *Ephemerides*, 7 August 1912. Duchamp's copy of Kandinsky's *Über das Geistige in der Kunst* was later given to Jacques Villon, thus (uniquely) saving for our inspection today one of the many books that (presumably) made up his library before his American sojourn beginning in mid-1915; I am most grateful to Maurice Tuchman (Los Angeles County Museum of Art) for sending me a photocopy. Duchamp's copy is still covered with extensive pencil annotations; these marginalia, however, only deal with individual French verbal equivalents of numerous, rather commonplace words placed in the printed German text. It is now believed that the handwriting is Villon's, which makes sense; since Duchamp studied German in school, he would not have bothered with such rudimentary translations. Unfortunately, all of Duchamp's other books appear to have been subsequently discarded. As Marcel's widow, Teeny (now deceased), kindly informed me in a letter (16 August 1985), her husband "never kept any letters or papers, and once he was through with a book he generally gave it to someone else." In regard to my question regarding Duchamp's specifically "esoteric" publications, Mme. Duchamp stated that "these were just the kind of things that Marcel became less and less interested in." As a result of such irreparable bibliographical losses, one must today reconstruct, as best as one can, Duchamp's original reading lists (for which, in part, see the bibliography, especially entries as marked with #). The only book I know of that he actually did specifically admit to owning in 1912, Lautréamont's *Les Chants de Maldoror* (1868; 1995 rpt.), was mentioned a letter of 1946 to MD's sister, Yvonne: "It could be the first Lautréamont, [since the one] that I had in 1912, or thereabouts; in any case, I would love to keep it as one of the *five or six books which constitute the whole of my library* [in 1946]" [Gough-Cooper and Caumont, *Ephemerides*, 8 December 1946 (my emphasis); see also 15 November 1921, for another reference to the Mallarmé volume, in a letter to the Arensbergs]. For another book he admitted to studying—Max Stirner's *L'unique et sa propriété* (1900) (*Der Einzige und sein Eigentum*, 1845; see Stirner, *The Ego and His Own*)—but which I do not see as particularly significant for the arguments pursued here, see Naumann, "MD: A Reconciliation of Opposites," in Duve, *Definitively Unfinished MD*, 41–67 (especially 53, 64 n. 15); for a schoolboy drawing manual still in Duchamp's possession at his death (E. Forel, *Guide pratique de dessin . . .*, 1897), see *ibid.*, 372. Given my alchemical thesis, it is also noteworthy that Duchamp also kept the chemistry book dating from his lycée days (see Troost, 1893; cited in Henderson, *Duchamp in Context*, 132). For another patently esoteric book known to have been in Duchamp's possession, see Pierre Revel discussing the transmigrations of souls, ch. 4, n. 14.

5. For various approaches to the problem of the complex relationships existing between fin de siècle occultism and early modern art, see the various art-historical essays assembled in exhibition catalogues directed by Tuchman (1986) and Loers

(1995); in the latter, see particularly the excellent introductory essay by Linda Henderson, "Die moderne Kunst und das Unsichtbare: Die verborgenen Wellen und Dimensionen des Okkultismus und der Wissenschaften," 13–27.

6. Denis, quoted in Chipp, 94.
7. Denis, in *ibid.*, 105, 107.
8. Gauguin, quoted in Chipp, 60; his emphasis.
9. For a useful anthology, see Dorra.
10. Moffitt, *Joseph Beuys*; see p. 144 for the reference to "sein Jesu-Kitsch."
11. Curtius, 397–98.
12. Apollinaire, quoted in Chipp, 224.
13. Marc, in *ibid.*, 180–81.
14. Klee, in *ibid.*, 186.
15. Kandinsky, in *ibid.*, 157.
16. Apollinaire, in *ibid.*, 225.
17. Kahnweiler, in *ibid.*, 252–53, 259.
18. Aurier, quoted in Nochlin, 136–37.
19. Wilson, 21.
20. For Saussure, see Culler; for cogent observations about the symbolists' obsession with hermetic languages, see Staller.
21. Saussure, *Cours*, in Culler, 90.
22. For much more detail on these crucial perceptual shifts and their direct physical manifestations in modern avant-garde perception, see Kern.
23. Whitehead, 10, 96, 105, 142–43, 171.
24. Webb, *Occult Establishment*, 281–83. For more historical analyses of this now commonplace staple of avant-garde conviction, see Kosinski, 63ff. She does not, however, cite some earlier statements by Éliphas Lévi with the same emphatic effect. In any event, the equation "Artist as Magician" is truly ancient; see Kris and Kurz, 69ff.
25. Webb, *Occult Establishment*, 421.
26. For what immediately follows, see Senior, 39ff.; see also Faivre, *L'esoterisme; Access to Western Esoterism*.
27. Balakian, *Symbolist Movement*, 11. Other, more detailed studies documenting the various influences of occultist thought on nineteenth-century French culture include: Arnold; Burhan; Geyraud, *Sociétés and Religions*; Mercier, *Sources ésotériques*; Pierrot; Pincus-Witten; Pommier; Richer; Roos; Saurat; Viatte, *Sources occultes and Victor Hugo*. For an exhaustive bibliography on esoteric primary sources available to avant-garde theoreticians before 1914, see Caillet.
28. Balakian, *Symbolist Movement*, 13.
29. Swedenborg, 344.
30. *Ibid.*, 136; his emphasis.
31. *Ibid.*, 368.
32. Senior, 34.
33. Swedenborg, 80.
34. On the modern art-historical phenomenon, see Goldwater; Rhodes; Rubin, "Primitivism." Unfortunately, these otherwise model investigations do not seriously examine the contributory role of the *philosophia perennis* of modern Occultism, which provided a welcoming pseudophilosophical climate for the reception of primitivizing

expression. For the antiquity and ubiquity of the primitivist image, see Moffitt and Sebastián (with further bibliography); for acute insights on the current situation of primitivism in the developed world, largely an expression of cultural snobbery, see Price.

35. Swedenborg, 145.

36. On this superannuated New Age phenomenon, see Moffitt, *Picturing Extraterrestrials*.

37. Baudelaire, quoted in Senior, 94 (in French).

38. Nerval, in *ibid.*, 77, 79 (in French).

39. For what immediately follows on the Androgyne, from Balzac to Breton, see Chadwick, 30–31; Praz, *Romantic Agony*, 320–42.

40. Balzac, quoted in Burhan, 213 (in French).

41. On this modernist procedure, see Watts, a study unfortunately weak on historical contexts.

42. For more on these quasi-occultist appraisals of hypnotism in the Symbolist period, see Burhan, 38ff., who quotes contemporary sources; see also Ellenberger.

43. Mesmer, quoted in McIntosh, *Éliphas Lévi*, 33.

44. For their allegiance to the standard occultist interests of the Symbolist era, see the various essays dealing with “Futurismus und Okkultismus” in Loers, 431–96.

45. For a vivid, anecdotal account of the phenomenon, see S. Brown; see also E. Bauer, “Spiritismus und Okkultismus,” in Loers, 60–80.

46. On this emblematic figure, beside McIntosh, *Éliphas Lévi*, see also Chacornac; Mercier, *Éliphas Lévi*.

47. Lévi, *Transcendental Magic*, 1.

48. Senior, 36.

49. Lévi, *Transcendental Magic*, 33–34.

50. A few scholarly works deal in detail with the historical sources of the modern kind of *l'homme de génie*; see Becker, Nahm, and Zinsel.

51. Lévi, *Transcendental Magic*, 64, 65.

52. Lévi, “Correspondences” (1851), quoted in Burhan, 138.

53. Lévi, *Transcendental Magic*, 14, 17.

54. Lévi, *History of Magic*, 29.

55. *Ibid.*, 37, 39, 40.

56. *Ibid.*, 226.

57. Lévi, *Transcendental Magic*, 19; his upper-case emphasis.

58. Lévi, *History of Magic*, 358.

59. *Ibid.*

60. McIntosh, *Éliphas Lévi*, 152.

61. For detailed expositions documenting these perhaps alarming conclusions, again see the scholarly essays assembled in Loers and M. Tuchman; see also Ringbom (both entries).

62. See Mathews, *Aurier's Symbolist Art Criticism*.

63. Aurier, as in Chipp, 87–88; Aurier's emphasis.

64. *Ibid.*, 91.

65. *Ibid.*, 89–93.

66. Adam, as in Burhan, 170: “L'époque à venir sera mystique et abstraite dans les rêves imaginatifs.”

67. Aurier, in Burhan.

CHAPTER 2

1. Unfortunately, at this writing, I do not know of any useful monographic treatment of the alchemical revival ca. 1860 to 1915, particularly as it influenced writers and artists. For brief introductions to the issues, see Dixon, "Carlos Schwabe," and E. L. Smith. For a fictional but well informed treatment of the entire hermetic panorama in modernist thought, see Eco, *Foucault's Pendulum*.

2. For this conclusion, see Viatte, (both entries) who stresses the populist nature of such esotericist ideas among Romantic writers.

3. Starkie, 101.

4. *Ibid.*, 124–37.

5. For a properly ironic, *postmoderniste* appraisal of the latter, see Sokal and Bricmont; Phake-Potter.

6. Papus, 28: "La méthode principale de la Science occulte c'est l'Analogie. Nous savons qu'il existe un rapport constant entre le signe et l'idée qu'il représente, c'est-à-dire entre le visible et l'invisible."

7. Besides Figuiet, 29–30, similar usages of alchemical terminology were employed by many other nineteenth-century Occultists; in short, Figuiet's list represents conventional spiritual rhetoric.

8. Besant, 96–128, a chapter on "spiritual alchemy."

9. For the historical evolution of this term, *Grand-Oeuvre*, see Cahn.

10. Mathews, *Aurier*, 26.

11. Lévi, *Transcendental Magic*, 13, 34; emphasis mine.

12. *Ibid.*, 28–29, 30, 113; Lévi's emphasis.

13. *Ibid.*, 114.

14. Lévi, *Transcendental Magic*, 175.

15. Lévi, *The History of Magic*, 121.

16. Lévi, *Transcendental Magic*, 289.

17. *Ibid.*, 281–82; emphasis mine.

18. Waldstein, 164.

19. Savorel, quoted in Waldstein, 165.

20. See Moffitt, "Fin-de-Siècle Parisian Hermeticism."

21. Reference is made here to the captioned frontispiece of Jollivet-Castelot's *Comment on devient alchimiste*.

22. Waldstein, 163.

23. Jollivet-Castelot: *Comment on devient alchimiste* (title).

24. *Ibid.*, 119–27. The descriptions of the Alchemist that follow are taken from this source.

25. The abortive Mexican effort is described in Tifféreau, 35ff. As for its attempted replication in his homeland, Jollivet laments, "le fait obtenu, le résultat constant que j'ai pu reproduire plusieurs fois au Mexique; ce fait, je ne réussis pas à le reproduire en France" (79). *Hélas*, it proved a flop.

26. For Strindberg's formula and the technical critique of it, see Gould, 221–22; for many other alchemical references by this author, see Strindberg, especially 102, 114, 117–18, 135, 145–46, 186, 194; for another contemporary account, see Jollivet-Castelot, *Comment on devient alchimiste*, 370–88, "Théories et Recettes Modernes: Théories et Travaux de M. Auguste Strindberg."

27. Huysmans, 74–76.
28. See Mathews, “Aurier and van Gogh,” 94–104.
29. Aurier, quoted in Welsh-Ovcharov, 56.
30. Baudelaire, quoted in Senior, 95: “. . . c’est Satan [Hermès] Trismégiste / Qui berce longuement notre esprit enchanté, / Et le riche métal de notre volonté / Est tout vaporisé par ce savant [al]chimiste.”
31. Mallarmé, in Senior, 138: “J’ai fait une assez longue descente au Néante. . . . Je n’avais pas fini mon oeuvre, qui est l’Oeuvre. Le Grand Oeuvre, comme disaient les alchimistes, nos ancêtres.”
32. Starkie, 42. For more on this poet’s reversion to traditional alchemical imagery, see Guerdon; see also Gengoux; Wilde.
33. For the complete French text of this poem, see Clair, *Catalogue*, 46, pointing out Duchamp’s employment of it for his descending nude paintings.
34. Pernety, 59: “Astre, Astrum”; 123: “Étoiles des philosophes.”
35. Pernety, 336: “Soleil.”
36. Hutin, 30.
37. Paracelsus, as in Volker, 43–44 (in German).
38. Apollinaire, *Selected Writings*, 57.
39. Apollinaire, *Les Peintres Cubistes*, 17–18.
40. For Apollinaire’s occultist inclinations, see Henderson, *Duchamp in Context*, 12, 24, 27, 182; for his esoteric library, see *ibid.*, 238 n. 33, 242 n. 97, 249 n. 110; for his approving citation of the *Mutus Liber*, see Daniels, 341 n. 21.
41. For the odd Orpheus of the Symbolists, see Kosinski.
42. My definition of the recognized psychic traits of Apollinaire’s Orphism follows Spate.
43. Apollinaire, *Selected Writings*, 231–33. For more on Apollinaire’s continuing interest in diverse facets of the Esoteric Tradition, see Bates, 93–94; Mackworth, 124–27. It now appears that what is presently needed is a wholly different historical study of Cubism, meaning much more esoteric interpretations than are the standard, strictly formalist ones, of which we now have a surfeit.
44. Ball, 70–71, 210.
45. Elderfield, in Ball, xxvi–xxvii. As with Cubism, so too with Dadaism: a wholly new approach is called for, namely an exploration of the historical sources of “esoteric anarchism.”
46. For some strictly occultist, fin de siècle discussions of dreams and the unconscious, see (among others) Blavatsky, *Doctrine Secrète*, vol. 1, 170; Bragdon, *Four-Dimensional Vistas*, chapter 6 (“Sleep and Dreams”); Carpenter, 72, 105; W. James, *Varieties of Religious Experience*, 405, 483–85; Ouspensky, *Tertium Organum*, 239.
47. For the evolution of “somanmbule Bewußtsein,” see E. Bauer, “Spiritismus und Okkultismus,” in Loers, 60–80. As with Cubism, Futurism, and Dadaism, so too with modernist “art made by chance”: a wholly new interpretive approach is called for, namely an exploration of the historical sources of esoteric automatism (I am working on that particular lacuna).
48. Breton, *Manifestoes of Surrealism*, 10–14.
49. *Ibid.*, 26, 37.
50. *Ibid.*, 33–34, 40.

51. *Ibid.*, 197–98.
52. *Ibid.*, 173.
53. *Ibid.*, 173–74; emphasis mine. For mention (without much historical analysis) of a number of pointedly alchemical motifs in Surrealist operation, see Chadwick.
54. *Ibid.*, 175.
55. For the textual sources of this verbal imagery, consult the edition of Gagnon.
56. Breton, 177.
57. *Ibid.*, 178.
58. Warlick, 61–73. Alas, this author fails to recognize that even the very title of Max Ernst's alchemical *magnum opus*—"Week of Kindness"—betrays its hermetic roots in the conventional *topos* of the "alchemist's philosophical work-week," e.g., Michael Maier's emblem book *Septimana philosophica*.
59. Ernst, 11–12, 16.
60. Breton, 24.
61. Klee, "Creative Credo," in Chipp, 182–86.
62. See Moffitt, "Hermeticism in Modern Art: An Introduction."
63. Seligmann, *Magic, Supernaturalism and Religion*, 85; Seligmann is another now forgotten, but centrally placed avant-garde figure who would make a worthy topic.
64. As then made available in New York in English, Jung's literature on Alchemy included his introduction to *Golden Flower* and "The Idea of Redemption in Alchemy" in *Integration*. Seligmann, however, knew the entirety of Jung's major hermetic study, *Psychologie und Alchemie* (Zürich, 1944), and most likely discussed it with his American artist friends before the publication of his *Mirror of Magic*, which deals with Alchemy at some length and in very straightforward prose with plentiful illustrations reproduced from old hermetic treatises.
65. Friedman, 40ff.
66. *Ibid.*, 119–20; see also J. Wolfe, "Jungian Aspects," who points out the blatant, fashionable alchemical symbolisms).
67. Seligmann, *Magic, Supernaturalism and Religion*, 87.
68. Dunning, 208–10.
69. Again, the contribution of alchemical metaphors and symbolism to modernist artistic practice and avant-garde thought is an important topic needing its own scholarly monograph.

CHAPTER 3

1. See Gough-Cooper and Caumont, *Ephemerides* (1993), a much more exhaustive compilation than their earlier compilation, *Plan* (1977), but the gratuitously bizarre "zodiacal" arrangement of *Ephemerides* (by day and month rather than year) is typical of the obscurantist pitfalls commonly obstructing the path of Duchamp scholarship; for a recent, well-researched, and straightforward narrative approach, see Tomkins, *Duchamp*.
2. For a sequential exposure of the artist's purposive deceptions, including the central myths of his disinterestedness, indifference, and withdrawal, again see Jones, 66–103.
3. For the history of public perceptions of the Artist, particularly as bohemian and rebel, see Kris and Kurz; Seigel (both entries); and Wittkower and Wittkower.

4. Cabanne, *Brothers Duchamp*, 7. For the early years, see also Goldfarb Marquis; Gough-Cooper and Caumont, *Plan and Ephemerides*; Tomkins, *Duchamp*.

5. Tomkins, *The Bride and the Bachelors*, 17.

6. Cabanne, *Dialogues*, 7–8; for the original French text of these interviews, see Cabanne, *Entretiens*, 10–11. For a nearly complete transcription of Duchamp's occasional public utterances and cryptic maxims, see Sanouillet.

7. R. Motherwell, quoted in Cabanne, *Dialogues*, 9–10 (absent from *Entretiens*).

8. Jollivet-Castelot, *Comment on devient alchimiste*, 119–27.

9. Most of these details have been taken from either Gough-Cooper and Caumont, *Plan or Ephemerides*, or Goldfarb Marquis.

10. For brief biographical sketches of, respectively, Duchamp's mother and father, see Gough-Cooper and Caumont, *Ephemerides*, 29 January 1925, and 3 February 1925, the days of their respective deaths.

11. Cabonne, *Dialogues*, 20; *Entretiens*, 30–31; on the elder brother's career, see Robbins, *Villon*.

12. Cabonne, *Dialogues*, 33; *Entretiens*, 55.

13. Goldfarb Marquis, 6, "Marcel never concealed his dislike for his mother," adding that a childhood acquaintance had even said to the interviewer that Marcel "intensely disliked her" (10).

14. Lebel, 3 (the original French text also appeared, slightly earlier, in 1959).

15. Goldfarb Marquis, 21; for Marcel's rigorous language exams, covering English, German, Latin, Greek, see Gough-Cooper and Caumont, *Ephemerides*, 21 July 1903; in German he received 24 ("plus") out of 40 points; in Latin, as based on an analysis of Horace's *Ars Poetica*, Duchamp gets 11 out of 20 points (and for some interesting observations about peculiarities of Horace's text, some pertinent even as an explanation for Duchamp's avant-garde oddities, see Moffitt, "Exemplary Humanist," especially 11ff.).

16. Gramont, 30–31.

17. Baudelaire, 399–403, 419–21. The dandy-Duchamp connection was first developed (and at greater length) by Moira Roth; see her "MD and America," 1–6, 9–14, 19–25.

18. Gramont, 34.

19. Weiss, 36, 109, 110, 163.

20. MD, quoted in Goldfarb Marquis, 112.

21. MD, quoted in Tomkins, *Bride and the Bachelors*, 17; see also Daniels, 346 n. 85.

22. My Cartesian speculations are largely drawn from Gramont, 303–27; for Descartes' method in his own words see Descartes.

23. For essential information on the content of French *lycée* courses in the humanities during Duchamp's youth, see Falcucci; Proust; nevertheless, for what immediately follows, I am mainly indebted to Burhan.

24. Ribot, 65, 146.

25. Mellier, 37, 606–07.

26. MD, *Écrits*, 170. Duchamp also claimed that Laforgue mainly interested him for the inscriptions heading his poems: "Peut-être étais-je moins attiré par la poésie de Laforgue que par ses titres." That observation I will only take *cum grano salis*.

27. MD, *Entretiens*, 183–84.
28. MD, *Écrits*, 173.
29. MD, *Entretiens*, 56.
30. For publications, in 1910, 1914, and 1932, of fragments of Roussel's play, see Clair, *Catalogue raisonné*, nos. 235, 236, 237: we now only know a considerably revised, later version of the complete *Impressions d'Afrique*.
31. For this opinion, which I support, see G. Raillard, "Roussel: Les fils de la Vierge," in Clair, *Abécédaire*, 185–200. For a different opinion, see Henderson, *Duchamp in Context*, who notes however, Roussel's occultist affiliations (53, 56); for an excellent perspective on Roussel's career and intentions, see Seigel, *Private Worlds*, 75–85.
32. MD, *Écrits*, 173.
33. MD, *Entretiens*, 67–68.
34. MD, *Écrits*, 173.
35. Herz, quoted in Shattuck, 188–89.
36. See Adcock, 166–67, fig. 84, suggesting that Duchamp's book cover for Jarry's *Ubu Roi* perhaps represents "an examination of the 'principe de charnière' [hinge-principle] and its concomitant fourth-dimensional mirror effects." Duchamp's interest in Jarry must have been, like the fascination with Hermeticism we postulate, lifelong: in 1959, Duchamp was enrolled in the *Collège de Pataphysique* with the rank of "Transcendent Satrap."
37. Yeats, quoted in Shattuck, 209.
38. Catulle Mendès, quoted in Shattuck, 210.
39. Jarry, quoted in Shattuck, 241–42.
40. MD, *Entretiens*, 65.
41. Cabanne, *Dialogues*, 21; *Entretiens*, 33.
42. Cabanne, *Dialogues*, 19–20; *Entretiens*, 31–32; for more data on his military discharge, see *Ephemerides*, 1 September 1909.
43. For a particularly gripping narrative, posthumously published, by one of those brave lads foolish enough to remain around for the fighting, see Linthier.
44. For useful contextual analyses of the mostly positive critical notices surrounding Duchamp's exhibitions of *Nude Descending in America* (vs. in France) since 1913, and an explanation of Duchamp's enduring fame in the USA, see Roth, "MD in America," 28–38.
45. MD, quoted in Daniels, 28.
46. Cabanne, *Dialogues*, 17; *Entretiens*, 27; for the specifically anti-occultist terminology in *Du cubisme*, see the transcription in R. L. Herbert, 14–15.
47. For full details of my bibliographic *trouvailles*, see Moffitt, "Fin-de-Siècle Parisian Hermeticism"; for more data on Duchamp's library experiences, see Gough-Cooper, *Ephemerides*, 4 November 1912; 3 November 1913; and 19 January 1915.
48. Cabanne, *Dialogues*, 101; *Entretiens*, 176.
49. For a brief summation of the bizarre scenario of Roussel's *Les Impressions d'Afrique*, see *Ephemerides*, 10 June 1912; see also G. Raillard, "Roussel: les fils de la Vierge," in Clair, *Abécédaire*, 185–200; .
50. Gough-Cooper, *Plan*, 66.
51. For the occultist environment there, largely overlooked by recent scholarship, see the essays on "Münchens okkultistisches Netzwerk," in Loers, 238–76; for more data relating to his Munich adventures, evidently inspired in part by an invitation from a German painter-friend, Max Bergmann, see Gough-Cooper, *Ephemerides*, 21, 25 June, 1912; 1, 3, 18 July 1912; 7, 25 August 1912.

52. For the most likely purchase date of Kandinsky's book, see *Ephemerides*, 7 August 1912. For more details about Duchamp's copy, and what little else is known about other books actually possessed by him at this time, see chapter 1, n. 4.

53. Kandinsky, *Spiritual in Art*, 2, 4.

54. Kandinsky, *Spiritual in Art*, 13–14. For an exhaustive account of Kandinsky's involvement with Occultism (specifically Theosophy), see Ringbom, *Sounding Cosmos*; for a biography of this high priestess of modern occultism, see Meade; for a discussion of the dubious movement she founded, see Campbell; Washington.

55. Kandinsky, *Spiritual in Art*, 19.

56. *Ibid.*, 44–45; emphasis mine.

57. J. Clair, "Perspective: Marcel Duchamp et la tradition des perspectiveurs," in *Abécédaire*, 124–59 (only dealing with the holdings of the Bibliothèque Ste. Geneviève pertaining to perspective; for the strictly esoteric holdings in this Library, see works marked with # in the bibliography).

58. Cabanne, *Dialogues*, 18; *Entretiens*, 28.

59. The second of these two paintings is mistakenly called "un portrait de Madeline Duchamp" by Jean Clair, in *Catalogue raisonné*, 36 (no. 43); for the earlier, 1909 "Portrait of Yvonne Duchamp," which represents the unmistakable compositional model for MD-43, see 29, no. 29.

60. For the fundamental historical study on this problematic subject, of such wide interest to the early modernist painters, see Henderson, *Fourth Dimension*.

61. See the recent essays by Linda Henderson and Gladys Fabre, in Loers, 13–27, 350–73.

62. Cabanne, *Dialogues*, 24; *Entretiens*, 38.

63. Henderson, *Duchamp in Context*, 3–4, 8, 102–03, 204 (among other citations); for more on Kupka, see the basic monograph by Rowell; see also Moffitt, "Kupka: *Vertical Planes*"; K. Srp, "Die andere Natur bei Frantisek Kupka," in Loers, 321–35.

64. For a partial translation of *Du Cubisme* by Gleizes and Metzinger, see Chipp, 207–16; for a complete translation, see R. L. Herbert, *Modern Artists on Art*, 2–18.

65. F. T. Marinetti, "Futurist Manifesto," in Chipp, 286.

66. For this conclusion, see the illustrated essays discussing "Futurismus und Okkultismus" in Loers, 431–502, (which points out how these artists, with their emphasis upon the "Unsichtbare, Sonderbaren und Phantastischen, . . . waren von Spiritismus und Parapsychologie fasziniert").

67. "Technical Manifesto," in Chipp, 289–92.

68. Reed, quoted in Green, 94.

69. Stegner, cited in Green, 289; emphasis mine.

70. For useful anecdotes about various artists who actively dabbled in politics at this time, and who actually stated the politicized functions of their art, see Shapiro.

71. "Technical Manifesto," in Chipp, 290.

72. *Ibid.*, 290, 292.

73. "The [Futurist] Exhibitors to the Public" (1912), in Chipp, 294–98; for the argument that those "states of mind (*stati d'animo*)" and "force-lines (*linee della forza*)" were taken "direkt vom Okkultismus," see the essays dissecting Futurist notions collected in Loers, 431–91.

74. *Catalogue raisonné*, 41, no. 50.
 75. Cabanne, *Dialogues*, 26, 28–29; *Entretiens*, 42, 47–49.
 76. Clair, *Catalogue raisonné*, 48–50, no. 62.
 77. Cabanne, *Dialogues*, 29; *Entretiens*, 49.
 78. “Technical Manifesto,” in Chipp, *Theories*, 290; emphasis mine.
 79. Cabanne, *Dialogues*, 35; *Entretiens*, 59.
 80. *Catalogue raisonné*, 52ff., nos. 68, 69, 70 (“Kings and Queens”), 71, 72, 73, 74, 75 (“Virgins”).
 81. Sweeney, 19–21; emphasis mine.
 82. *Ibid.*; emphasis mine.
 83. Daniels, 22–23, 293 (n. 14), and fig. 5b (a 1910 caricature).
 84. Kandinsky, *Spiritual in Art*, 14.
 85. Lévi, *History of Magic*, 370.
 86. *Ibid.*, 371.
 87. Hughes, *Nothing If Not Critical*, 306, 346.
 88. Here the specific reference is only made to evidently ambitious, finished works (“huile sur toile”), including MD-33, 39, 39 bis, 40, 41, 42, 43, 44, 47, 48, 49, 50, 56, 57.
 89. Apollinaire and others, as cited in Daniels, 21ff.
 90. For the sense of the strictly pictorial components of Alchemy (among other picture albums lacking this kind of art-historical focus, e. g., Roob), see Lennep, *Art & Alchimie*, and *Alchimie: Contribution*.

CHAPTER 4

1. For a serious historical grounding in modern Occultism, an important form of modernist cultural expression rarely studied by art historians, see Washington; Webb, *Occult Establishment* and *Harmonious Circle*. Many other secondary studies on esoteric philosophies are also cited in the bibliography). For the strictly art-historical context, see also two massive exhibition catalogues: Tuchman, *Spiritual in Art* (1988); Loers, *Okkultismus und Avantgarde* (1995). Even though I will provide ample evidence for the fact of such an historical phenomenon, at this writing I do not know of any useful monographic treatment of the Alchemical Revival ca. 1860 to 1915, particularly as it would have influenced writers and artists, especially in France; for a brief introduction to the issue, mostly dealing with literary treatments appearing after 1915, see E. L. Smith.
2. See Henderson, *Duchamp in Context*.
3. Camfield, in Duve, *Definitively Unfinished MD*, 168.
4. See Caillet, *Manual Bibliographique* (a catalogue raisonné).
5. For the earliest textual remnants pertaining to Alchemy, and this is a collection likely known to Duchamp, see Berthelot, *Collections*; for an English language version of some of these, see Scott. The secondary literature on Alchemy is, of course, immense (see bibliography); see also Caillet (1913), another work which Duchamp himself probably perused. As I will argue, the most likely textual sources for Duchamp’s initial alchemical appropriations were principally Pernety and Poisson. For proof of Duchamp’s physical access in the Bibliothèque Ste. Genevieve to these esoteric French publications, among many others, see bibliographical entries marked with # (and as well as various arguments in chapters following).

6. Clair, *Catalogue raisonné*, 33–34, no. 38: *Portrait du Docteur Dumouchel*.
7. Steefel, *Position of Duchamp's 'Glass,'* 76.
8. MD, quoted in Clair, *Catalogue*, 33.
9. *Ibid.*
10. This letter was first published in 1977 by Jean Clair, *Catalogue*, 34.
11. Clair, *Catalogue*, no. 36. Duchamp's inscription, put in the lower right corner of the sketch, reads: "à ce cher vieux Tribout / bien cordialement / Duchamp / [19]10."
12. Clair, *Catalogue*, no. 43; dated to October 1911. This portrait bears a curious inscription, for which I can offer no pertinent explanation: "Une étude de femme / Merde."
13. Another work which might fit into this category is called *Nu sur nu* (Clair, *Catalogue*, no. 45; ca. 1910–1911). However, since this is clearly an unfinished nude study, apparently casually placed upon the fragment of an earlier figure (ca. late 1909), it is hard to say whether the halo in this case is unintentional, meaning just the beginning of an incompleated background. Nonetheless, the citations following, from Revel's studies on *metempsychosis*, suggest a strictly occultist reading for any such *aureola*.
14. MD letter, quoted in Ramírez, *Duchamp*, 267 n. 3.
15. Jean Clair is the scholar who independently discovered that Duchamp once owned a copy of Revel's book dealing with the wholly esoteric subject of the transmigration of souls. Clair showed a copy of this publication to Maurice Tuchman (Los Angeles County Museum of Art), and it was the latter who kindly passed this information on to me. This discovery is truly invaluable as it constitutes an all too rare instance of some tangible documentation for Duchamp's early esoteric reading lists (see ch. 1, note 4; for some other likely instances, see the bibliographical entries marked #). Clair's finding is also extremely important inasmuch as it was Revel's publisher, Chacornac, who also published many other important occultist publications, including Poisson's *Théories*, about which I shall have much more to say. Clair specifically cited the 1905 edition of Revel's *Le Hasard*, which was preceded by earlier drafts, and also translations into German, in 1887, 1890, 1892, 1893, 1895, etc. This is also important to note since Revel's two-part book, as published in 1905, presently remains the single documented, published source for Duchamp's notorious preoccupation with *Le Hasard*, or "Chance" (further discussed in chapter 7). Although Linda Henderson briefly mentions Revel's book (in the 1909 edition: *Duchamp in Context*, 22, 65, 246, n. 57), she does not discuss its commentaries on *le hasard*, nor much else. They are treated here in chapter 7.
16. Revel, *Le Hasard*, 1905 ed., 348–66.
17. *Ibid.*, 348–50.
18. *Ibid.*, 352–53.
19. *Ibid.*, 357–59.
20. Ringbom, "Art"; Moffitt, "Fighting Forms," and "Theosophical Origins of Franz Marc's Color-Theory"; see also the essay on Marc, in Loers, 266–76 (which does not cite the last two articles); for Kupka's Theosophical affiliations, see Henderson, *Duchamp in Context*; Moffitt, "Kupka"; Rowell.
21. Besant and Leadbeater, *Thought-Forms*, 7–12. Among many other esoteric authors one could cite, in Germany at the same time another widely read occultist

author was describing the very same kind of *Aura des Menschen*; see Steiner, *Theosophie*. For a detailed explanation of Steiner's bizarre "Anthroposophical" beliefs, see Moffitt, *Occultism in Avant-Garde Art*.

22. To date, the best study of this topic is Henderson, *The Fourth Dimension*; for the best art-historical study on the strictly occultist interpretations and sources of the motif, see Gibbons, "Cubism and 'The Fourth Dimension'." For the most detailed and meticulous study of the topic as it strictly pertains to Duchamp's practices (with, unfortunately, a total omission of any kind of potentially significant occultist references), see Adcock; see also chapter 7 below.

23. Leadbeater, *Man Visible and Invisible*, 6–9.

24. *Ibid.*, 10–12.

25. *Ibid.*, 18–20; emphasis mine.

26. Nonetheless, Kandinsky was certainly not the first artist (even in Germany) to employ concepts potentially indicative of radical pictorial abstraction; see Lankheit. Besides noting *der Primat der Musik* in the subjective process of dematerialization, Lankheit usefully discusses important philosophical precedents coming from Wackenroder, Tieck, and Novalis.

27. For what immediately follows, see Gibbons, "British Abstract Ptg.," 33–37 (also including nicely reproduced color plates). Houghton later published at her own expense two semi-autobiographical tomes, *Evenings at Home in Spiritual Séance* (2 vols., 1881–1882), and *Chronicles of the Photographs of Spiritual Beings* (1882). For a later example of a similarly, spiritually impelled female abstractionist, Swedish in this case, see the essays by Åke Fant on Hilma af Klint, in Tuchman, 153–63; Loers, 117–31. Curiously, feminist art historians have not yet pursued the clear-cut gender implications behind such paleo-painterly abstraction pioneered by the likes of Houghton and Hilma; I am sure that many more Victorian-era "sensitives" (*femelles*) executed similarly abstract artworks.

28. For a solitary monographic analysis of the strictly modernist manifestations of aleatory creation, see Watts. Unfortunately, because it does not discuss either the modernist or ancient esoteric materials applicable to this investigation, Watts's study seems seriously flawed. Among other omissions, she fails to mention an important, pseudoscientific published source for Breton's psychic automatism, also including some descriptions of purely mediumistic activities; see Janet. It has already been suggested, as Watts also fails to note, that the Swedish playwright August Strindberg, also an amateur alchemist, may have been the first, pre-Dada artist to employ Chance in his paintings; see Berman. For other contemporary explorations of chance and automatism in paintings, in this case created by the insane, see Will-Levaillant. Historical lacuna similar to Watts' are also apparent in the few other discussions of this crucial, modernist topic; see, for instance, Arnheim; Bogel; Calvesi, *Duchamp invisible*; Hancock; and Mann. For chance imagery as a distinctively pre-modern art practice, see Janson; see also chapter 7 below.

29. The historical significance of Swedenborg in the development of modern occultism is a point deftly made by S. Brown; for his strictly literary effects, see Roos; for the broader cultural background, see chapter 1.

30. Swedenborg, 186.

31. *Ibid.*, 187–88.

32. Houghton, *Catalogue*, quoted in Gibbons, "Georgiana Houghton," 36.

33. According to the OED, the first reference in English to the word *synesthesia* appeared in *The Century Dictionary*, 1889–1891. Nonetheless, the practice, however self-described, is truly ancient; see Schrader; for the strictly modern kind, as known to Kandinsky, see Lockspeiser.

34. Kandinsky, *Über das Geistige in der Kunst*, 45ff. (in chapter 5, “Wirkung der Farbe”), 74ff. (in chapter 6, “Formen- und Farbensprache”). The immediate source for Kandinsky’s emotionally expressive chromatic ruminations was not (obviously) Georgiana Houghton. As recent scholarship shows (see Ringbom, “Art”; Moffitt, “Fighting Forms” and “Theosophical Origins”), many of the details of Kandinsky’s particularized equations of hues and emotions most likely were derived from contemporary Theosophical publications. For more on Theosophical illustrated publications and their effects on certain modern artists, see the exhibition catalogue by Corlett.

35. Denis, 191–95.

36. MD, “The Creative Act,” quoted in Lebel, MD, 77.

37. This is another example of several historically significant phenomena directly pertaining to the history of the use of Chance by modern artists that have not been adequately exposed in Watts.

38. Another Theosophical interpretation of Duchamp’s *Portrait of Dr. Dumouchel* had been worked out by John Dee (a pseudonym for an English author, otherwise unknown), who said that in this portrait, “Les auras roses et oranges dénotent respectivement ‘l’affection non égoïste’ et ‘l’intellect fort’; la verte dénote la ‘sympathie’”; J. Dee, “Ce façonnement symétrique,” in Clair (ed.), *Marcel Duchamp: Tradition?*, 351–402 (396). Another conclusion one reaches by these means is that the so-called Kirlian Auras have been around with us for quite a while, and long before they were so dubbed; for the New Age kind, see Krippner and Rubin.

39. Clair, *Catalogue*, no. 42: *Le Buisson*. The interpretations following equally apply to another contemporaneous painting; see no. 41, *Baptême*.

40. MD, “Apropos of Myself,” as in d’Harnoncourt and McShine, 249; emphasis mine.

41. Clair, *Catalogue*, 36.

42. *Thought-Forms*, 39.

43. *Ibid.*, 39–42.

44. *Ibid.*, 23.

45. Schuré, 11.

46. *Ibid.*, 238–40.

47. *Ibid.*, 255–58.

48. MD, *Dialogues*, 88; *Entretiens*, 153–54: “Je crois beaucoup à l’éroticisme . . . mais non travesti dans les sens ‘pudeur’ du mot.”

49. Clair, *Catalogue*, 35, no. 40.

50. *Ibid.*

51. Schuré, 192–93.

52. Lévi, *Transcendental Magic*, 37.

53. *Ibid.*, 132.

54. Lévi, *History of Magic*, 204.

55. Pernety, 31: “Adam.”

56. *Ibid.*, 124: “Eve.”

57. For a number of often well-documented cases of artists at this time working in various ways with iconographic staples, such as auras, drawn from the Esoteric Tradition, see the scholarly essays edited by Tuchman; Loers.

58. Lipchitz, unpublished 1963 interview, in Tuchman, 39.

59. On the strictly art-historical facets of Alchemy, see Lennep, *Art and Alchimie* and *Alchimie: Contribution*; for handsome reproductions of this esoteric art, see Roob.

60. A notable exception is Henderson, *Duchamp in Context*.

61. For what immediately follows, see Badash.

62. For the discussion of radioactivity in this and the next paragraph, see the entirety of Henderson, "X-Rays"; much more valuable documentation is given later throughout her *Duchamp in Context*.

63. As quoted in Badash, 91.

64. Jollivet-Castelot, "L'Alchimie."

65. For some popular responses, see the *Reader's Guide*, 1905–1909, entries under "Radioactivity" and "Radium" (some 148 articles), also including Sar Pélédan, "Le Radium et l'hyperphysique," *Mercure de France*, L, June 1904, 672; R. K. Duncan, "The Whitherward of Matter," *Harper's Monthly Magazine* 116, May 1908, 877–84; and an anonymous editorial, "The Garden of Eden in the Light of the New Physics," *Current Literature* XLVII, July 1909, 91–93 (all as cited in Henderson, "X-Rays," 338 nn. 45–47).

66. (Anonymous), 28, 31–32, 44, 46–47.

67. For a detailed exposition of these scientific discoveries, also showing their assimilation by both occultists and artists, again see Henderson, *Duchamp in Context*, and her excellent essay on "Die moderne Kunst und das Unsichtbare," in Loers, 13–27.

68. Henderson, "X-Rays," 326, 328.

69. Henderson, *Duchamp in Context*, 25, 111.

70. Clair, *Catalogue*, 40, no. 47. The first strictly alchemical analysis of this canvas was made by Arturo Schwarz; see his article reiterating his earlier arguments, "Alchimie," in Clair, *Abécédaire*, 10–21. Considerably amplifying upon his initial suggestions, I am adding much more documentation, especially the textual kind easily available to Duchamp in 1911.

71. It was just five years later, in 1916, that Suzanne definitively took up with the sculptor Jean Crotti; see Gough-Cooper and Caumont, *Plan*, 15, 17. Both were, in fact, interested in investing their own art with esoteric themes and iconography; for their mutual careers, see the exhibition catalogue by Camfield and Martin; for their esoteric themes, see M. Tuchman, 46–47.

72. F. Naumann, "MD: A Reconciliation of Opposites," in Duve, *Definitively Unfinished MD*, 41–67.

73. On this important emblem book, see Lennep, *Alchimie: Contribution*, 230–34.

74. For its familiarity to, among others, Apollinaire, see Daniels, 341 n. 21; Henderson, *Duchamp in Context*, 249 n. 110.

75. The only significant difference between Plates II and VIII in the *Mutus Liber* is that in the former the contents of the sealed flask turn out to be Neptune with his trident accompanied by two children, who are identified by their attributes as representing the Sun and Moon. To the contrary, Plate XI is an exact duplicate of Plate VIII.

76. Paracelsus, quoted in Hutin, 94.

77. McLean, *Commentary on Mutus Liber*, 18.
78. Rulandus, 394.
79. Pernety, *Dictionnaire*, 54: "Arbre."
80. Poisson, *Théories et Symboles*, 54: "Cette figure se trouve en tête du *Gloria mundi* dans le *Museum hermeticum*." The rest of this page, an "Explication de la planche V," provides a detailed iconographic explanation of the Philosophers' Tree.
81. *Ibid.*, 126.
82. This strictly pictorial kinship was first recognized by Arturo Schwarz, but he had only illustrated the print as it appeared in its initial publication, in J. C. Barckhausen's *Elementa Chemiae* (Leyden, 1718), which Francis Naumann curtly dismissed as "some obscure eighteenth-century alchemical treatise." In short, neither author recognized that the source for Duchamp's figure of "L'Enfant Enfermé dans l'Oeuf" was precisely as Barckhausen's motif had been reprinted in 1891 by Albert Poisson, that is, in a modern publication correctly described by Jean Suquet as representing "the Bible for Alchemists around 1900" (Naumann and Suquet, as quoted in Duve, *Definitively Unfinished MD*, 73–74).
83. Pernety, 294: "Printem[pls]." For more on this topic, see also 323, "Saisons," where each of the four Seasons is used to characterize a different stage of the *Grand-Oeuvre*.
84. Pernety, 204: "Mariage."
85. Pernety, 204: "Mariage" (complementary article).
86. Pernety, 144, 20: "Frère."
87. Pernety, 335: "Soeur."
88. The idea of Incest in Duchamp's *Spring* was, unfortunately, taken altogether too literally by Arturo Schwarz. This generically represents the sort of problem which has beset several authors who have previously attempted those alchemical interpretations of Duchamp's early oeuvre: they have not sufficiently studied the kinds of texts Duchamp most likely consulted, meaning 1) more or less contemporary publications, and 2) most likely ones published in French. The baleful results are that, not surprisingly, thoughtful scholars then find it difficult to accept their esoteric and rampantly anachronistic conclusions.
89. Pernety, 172: "Inceste."
90. Pernety, 204: "Mariage du frère et de la soeur."
91. Pernety, 118: "Enfant."
92. Poisson, *Théories*, vi. 2, 3, 4, 6, 17.
93. Poisson, *Théories*, 9–11.
94. For the motif of Marcel as the self-dubbed Salt-Seller, see MD, *Marchand du Sel-Écrits*.
95. Poisson, *Théories*, 11–13.
96. For a number of these, presented under the heading of "Cosmic Imagery," all of which illustrate the idea that the universe is a single, living substance, see M. Tuchman, 22–29. One could easily list many more publications from the Esoteric Tradition incorporating these kinds of diagrammatic, circle-infested symbols.
97. Clair, *Catalogue raisonné*, 48, no. 61.
98. MD, *Écrits*, 221–22. The 1964 lecture from which this comment is drawn, "Apropos of Myself," was first published in 1973; see d'Harnoncourt and McShine, 255–56.

99. MD, *Dialogues*, 31; *Entretiens*, 51–52.
100. Pernety, 69: “Broyer.”
101. Pernety, 236: “Moulin des Sages.”
102. Pernety, 140: “Flèches.”
103. Pernety, 76–77: “Cercle.”
104. Pernety, 83: “Circulation,” collectively standing for all “opérations du grand oeuvre pour la multiplication de la quantité et des qualités de la pierre.”
105. Clair, *Catalogue*, nos. 139, 140.
106. Poisson, *Théories*, 44.
107. Poisson, *Théories*, 44.
108. *Écrits*, 145–64. For another approach, in which the author drolly redoes Marcel’s *calembours* in “Franglish,” see G. M. Bauer, “Duchamp’s Ubiquitous Puns,” in Kuenzli and Naumann, 127–48.
109. Poisson, *Théories*, 34.
110. Poisson, *Théories*, 36–37: “Les Alchimistes écrivaient d’une façon obscure et symbolique pour se préserver des accusations.”
111. Poisson, *Théories*, 41–47.
112. Pernety, 375–77: “Vitriol.”
113. MD, *Large Glass*, ed. A. Schwarz, 78–79; *Écrits*, 104 (assigning the date of 1913): “. . . le possible est seulement un ‘mordant’ physique (genre vitriol).” The numeration I am following for Duchamp’s Notes is that assigned by Schwarz, who also provides facsimiles of the handwritten texts with English translations on facing pages (which I am ignoring); the French texts I quote are derived from Sanouillet’s transcriptions.
114. MD, *Écrits*, 36.
115. Poisson, *Théories*, 78.
116. MD, *Écrits*, 211–12; undated, this Note is not to be found in the Schwarz collection.
117. Pernety, 336: “Soleil.” As usual, this author has much more to say about the Sun of the Alchemists.
118. MD, *Écrits*, 212.
119. Just to indicate the endless nature of this interpretive task—a chore which might be better consigned to the typically mind-numbing routines of a doctoral dissertation—I will cite here several other Notes by Duchamp. These the alert reader may easily learn to read in the manner championed by Albert Poisson, meaning you must also have Pernety’s *Dictionnaire* in hand. In this case, I will only cite the *Posthumous Notes*, which, as yet, have scarcely been ravaged by creative scholarship; see Matisse, MD, *Notes*, Note 9 (*exemplum*: containing an obvious reference to Philalethus’ often cited treatise, *Introitus apertus ad oclusum regis palatium*; as in *Musaeum Hermeticum*, 647–700), Notes 11, 14, 26, 35, 36, 58, 71, 77, 80, 83, 84, 92, 109, 114 (*exemplum*: a description of an athanor), 131, 143, 144, 152, 152, 153, 164, 185, and others. Following further decipherments of various Duchampiana, forthcoming, much of the character of the hermetic codes hidden in these particular Notes will become clearer to the attentive reader.
120. Clair, *Catalogue*, 49, no. 62.
121. MD, *Entretiens*, 49, 56; *Dialogues*, 29, 33 (from which translation I have departed in many places, some with the original phrases interpolated).

122. Steefel, *Position of Duchamp's Glass*, 128.
123. Lebel, 14, n. 1.
124. Pernety, 359: "Transmutation (Phys.)."
125. Pernety, 98: "Décomposition"; 104: "Dissolution."
126. Pernety, 193: "Linéaire (Voie)."
127. Masheck, 5.
128. On this art historically unique work, and also the results of a unique scientific analysis performed by the FBI stalwarts on its spermatic contents, see Bonk, 282–83. For the passionate love affair with Martins, ca. 1943–1951, see the materials unearthed in Tomkins, *Duchamp*, 353–67; *Paysage fautif* is illustrated on p. 354.
129. Ramírez, *Duchamp: El amor y la muerte*, 233.
130. Pernety, 331: "Semence."
131. Pernety, 331: "Sperme. Sperme féminin. Sperme masculin." The reader familiar with traditional alchemical texts will recognize that I could have quoted more historical materials dealing with this topic, particularly by means of Paracelsus's "spermatic fluid," *genug noch aber!*
132. Arensberg, *Shakespearean Mystery*, 126.
133. *Ibid.*, 127–28.
134. Clair, *Catalogue*, 46–47, no. 60.
135. Steefel, *Encore à cet astre*, 23–30.
136. Hitchcock, quoted in Pearsall, 153.
137. Hutin, 17. For contemporary support for this Superman thesis, specifically of Nietzschean derivation, see Divoire.
138. Clair, *Catalogue*, 50, no. 63.
139. As Jean Clair observes (*ibid.*, 50), "le présence de deux bandes noires verticales, de chaque côté de l'oeuvre, ne s'explique guère."
140. MD, *Écrits*, 222.
141. *Écrits*, 222–23; the French text—"en sévères couleurs bois"—merely canonized the original mistranscription, "wood colors," in English; see d'Harnoncourt and McShine, 256. Marey's photo album, *Le Mouvement*, was published in 1894; for a largely formal study of the relationship between Marey's photographs and Duchamp's techniques of decomposition and demultiplication, see Clair, *MD et la photographie*, 26ff.; see also Braun, 287–91.
142. Bergson, 322–23. For the likely influence of writings by this well-regarded metaphysician upon the contemporary avant-garde, see Antliff, "Bergson and Cubism," and *Inventing Bergson*; Davies; Petrie; see also Henderson, *Duchamp in Context* (Index, s. v. "Bergson").
143. Pernety, 251: "Noircur."
144. Pernety, 250: "Noir plus noir que le Noir même."
145. Pernety, 236–37: "Multiplication."
146. Rulandus, 123.
147. Poisson, *Théories*, 157. The motif of the *scala philosophorum* occurs constantly in alchemical literature and art. See, for instance, Lennep, *Alchimie: Contribution*, "Échelle (Escalier)": 117, 133, 171, 174, 179, 207, 233, 234, 236, 250, 302.
148. Pernety, 112: "Echel: Matière de l'oeuvre au noir très-noir, ou en putréfaction parfaite."

149. For this motif, signifying spiritual ascent and descent, see the standard study, A. O. Lovejoy, citing, among many other authors, Macrobius: "All things follow in continuous succession, degenerating in sequence to the very bottom of the series . . . this is Homer's golden chain, which God, he says, bade hang down from heaven to earth" (63). Whereas Lovejoy cites many other original texts dealing with the motif of the Ladder of Being, he does not record the strictly hermetic adaptations of this standard topos, some of which I will retrieve.

150. Clair, *Catalogue*, 52–54, nos. 67–70.

151. For an interpretation complementing mine, namely that Duchamp's "King and Queen" pictures illustrate contemporary interest in "the invisible reality of matter itself: electrons, radioactivity, and even alchemy," see Henderson, *Duchamp in Context*, chapter 2.

152. MD, *Écrits*, 223.

153. MD, *Entretiens*, 59–60; *Dialogues*, 35–36 (from which translation I have again departed in various places, some with the original phrases interpolated).

154. Lévi, *History of Magic*, 39, 364.

155. Pernety, 319: "Roi."

156. Pernety, 314: "Reine."

157. Poisson, *Théories*, 84.

158. Poisson, *Théories*, 64, 85–86: ". . . L'union du roi et de la reine constituait le mariage philosophique. . . . Leurs habits désignent les matières étrangères, les impuretés qui les souillent. . . . La purification était symbolisée par une fontaine où le roi et la reine, le Soleil et la Lune, venaient se baigner." Incidentally, Poisson's citation of the page number for this engraving in the *Hermetic Museum* is correct (i.e., the 1677 ed. on pp. 393–95), just as his synopsis of the Latin text is accurate. This is later quoted in the original Latin in chapter 5.

159. Poisson, *Théories*, 126; cf. Lennep, *Art et Alchimie*, 88. For the source of Poisson's print, and especially the text explaining its significance to him, see *Musaeum Hermeticum*, 405–06, "VI. CLAVIS" (and again I find that Poisson's paraphrase proves faithful to the Latin original).

160. Pernety, 142: "Force."

161. Pernety, 380: "Volatil. Volatiles. Volatilisation": "Tout l'Art [hermétique] consiste à volatiliser le fixe, et à fixer le volatil."

162. Pernety, 360: "Transverse."

163. Henderson, *Duchamp in Context*, 16ff.

CHAPTER 5

1. Much of this biographical data has been drawn from Gough-Cooper and Caumont, *Plan and Ephemerides*; see also Sawelson-Gorse, "Silent Guard"; Tomkins, *Duchamp*.

2. For New York Dada in general, see, besides Green (an excellent contextual study), Tashjian, *Skyscraper Primitives* and "New York Dada." Unfortunately, Arensberg never seems to have written anything substantial about his adventures in the New York art world, nor, for that matter, anything specific about his philosophy of art.

3. The intellectual and esoteric pursuits of Walter Arensberg have received little scholarly attention; for a welcome exception to the rule, see Naumann, "Cryp-

tography” and “Walter Conrad Arensberg”; more recently, see also Sawelson-Gorse, “Silent Guard,” especially 54–60, 81–83, 143–48, 159–61, 162–78. The latest analysis is Moffitt, “Cryptography and Alchemy.”

4. Cabanne, *Dialogues*, 51–52; *Entretiens*, 87–88.

5. MD, quoted in Tomkins, *Bride*, 37–38.

6. Daniels, 266–67 (I will leave this particular decipherment to qualified cryptographers).

7. For this odd work, incorporating another overtly cryptographic exercise, see Clair, *Catalogue*, 86–87, no. 107, *À bruit secret*; see also M. Nesbit and N. Sawelson-Gorse, “Concept of Nothing: New Notes by MD and Walter Arensberg,” in Buskirk and Nixon, *Duchamp Effect*, 130–75 (especially 163–67); for cogent observations about the Symbolists’ earlier obsession with hermetic languages very much of the sort found in the co-authored piece, see Staller.

8. Arensberg, *Cryptography of Dante*, 400–01; for some other tactical definitions, see also his chapter 2, “Acrostics,” 23ff.

9. MacGregor-Mathers; another fascimile edition is easily available: Dover, 1975.

10. See for instance, Arensberg, *Shakespearean Mystery*, 148, specifically citing “*The Kabbalah Unveiled* by S. L. MacGregor-Mathers.”

11. MacGregor-Mathers, xvii.

12. *Ibid.*, xxxi; for further explanations, the author refers to his *Kabbalah Unveiled*, which Arensberg had cited, as in n. 10 above. For an extended interpretation of arcane kabbalistic materials applied (for me, unconvincingly) to Duchamp—with, however, no reference made to either Arensberg’s or Mathers’s publications—see Doepel, “Arcane Symbolism” (*Kabbalah*, 51–182; *Large Glass*, 183–655; appendices, 835–86).

13. *Ibid.*, xxxvi.

14. *Ibid.*, xxxvii–xxxviii.

15. Arensberg, *Shakespearean Mystery*, 126–28. For his Sendivogius quotations, Arensberg cites as his textual source, “Waite, *The Secret Tradition in Alchemy*, 248–49.” Arensberg’s publications, and his private papers and books, including many specifically discussing alchemy and hermeticism, will soon again be made available for scholarly inspection in the Huntington Library, San Marino, Cal. (they have been transferred from their former repository, the Francis Bacon Library, Claremont, Cal.).

16. For a lively character sketch of Dreier the art patroness, see Saarinen, 238–49.

17. For the specifically esoteric connections, see Bohan, especially chapter 2, “Dreier’s Artistic Philosophy.” Even though Bohan has usefully gathered the necessary documentation to prove Dreier’s involvement with Occultism, she does not quite appear to realize the complete or even potential implications of such esoteric allegiances for the course of American Modernism as a whole, not to mention Dreier’s particular involvement with Marcel Duchamp.

18. On this modernist modernist pseudoreligion in particular, see Campbell; Meade; Washington; Webb, *Occult Establishment*.

19. For more on the strictly pictorial mechanics and iconographic programing of Theosophical art, see Ringbom, *Sounding Cosmos*.

20. For Steiner and Anthroposophy, see the comments and thorough bibliography in Galbreath, "Spiritual Science"; see also Kugler; Mäckler; Moffitt, *Occultism in Avant-Garde Art*, 105ff.

21. Steiner, quoted in Moffitt, *Occultism in Avant-Garde Art*, 178. This book contains innumerable citations from Steiner's stridently messianic proclamations on art and on life in general.

22. Agee, "New York Dada," in Hess, *Avant-Garde Art*, 125–54 (p. 128); for the mood and cultural context of these, and the following proto-Dada statements, see Green.

23. De Casseres, quoted in Agee, "New York Dada," 132.

24. *Ibid.*

25. Cabanne, *Dialogues*, 38–39; *Entretiens*, 64–65.

26. *Ibid.*, 38–39.

27. *Ibid.*, 64–65.

28. See Henderson, *Duchamp in Context*, consulting especially her "Large Glass Index," 368–74.

29. MD, quoted in Tomkins, *Bride*, 35, 38.

30. Cabanne, *Dialogues*, 18; *Entretiens*, 28.

31. Masheck, 17.

32. Cabanne, *Dialogues*, 75; *Entretiens*, 132; for the chronology of the break-age, see Daniels, 102, 312 n. 88.

33. Clair, *Catalogue*, 120–21, no. 143: *Boîte Vert*.

34. See Schwarz, *Large Glass*, for facsimiles of all the handwritten Notes. As before, when I cite a Note by number in my text, it corresponds to the numeration established by Schwarz; as before, when I quote the original French texts, these are as transcribed in Sanuillet, *Écrits*.

35. MD, in Daniels, 312 n. 92.

36. Daniels, *Duchamp und die Anderen*, 103.

37. Matisse MD, *Notes* (with facsimiles of all the handwritten *Notes*).

38. Stauffer, in Daniels, 347 n. 105.

39. Stauffer, in Daniels, 245, 343 n. 38.

40. For a listing of the broadly esoteric and/or strictly alchemical interpretations of Duchamp's oeuvre, see (besides Lebel) Golding, *Duchamp*, 85–92; U. Linde, "L'Esotérique," in Clair, *Abécédaire*, 60–85; A. Schwarz, "The Alchemist Stripped Bare in the Bachelor, Even," in d'Harnoncourt and McShine, 81–98; Schwarz, "Duchamp et l'alchimie," in Clair, *Abécédaire*, 10–21; Schwarz, various essays in *L'immaginazione alchimica*; Moffitt, "Emblematic Source"; Moffitt, "MD: Alchemist of Avant-Garde"; Daniels, 238–57, 341–46 (with bibliography to 1992); Henderson, *Duchamp in Context*, "Appendix B" (bibliography to 1997). Although flawed by a lengthy and nearly undigestible Jungian preface and overriding bias, the most comprehensive and, as it turns out, most generally credible alchemical interpretation of the *Large Glass* is that in Calvesi, *Duchamp invisible*. Calvesi seems, for example, the first scholar to call attention to Duchamp's evidently intimate familiarity with Pernety's *Dictionnaire*, inspiring me to acquire my own copy. For an example of some much more wildly esotericist approaches, typically unfocused and unconvincing, see Burnham, especially 71ff.; in a like vein, among many similar recent efforts, see Doepel, "Iconographical Analysis."

41. Pernety, 376, part of the long article on “Vitriol” which was quoted at length in a previous chapter. Given that so much material in Pernety’s *Dictionary* proves to be so closely aligned with significant motifs in Duchamp’s *Notes*, my belief is that the artist possessed his own, probably second hand copy. Even today one can find similar esoteric *bouquins* (old books, as in Duchamp’s Note 85) for sale in *librairies d’occasion* to be found all over the Rive Gauche in Paris.

42. Cabanne, *Entretiens*, 71.

43. Sanouillet, *Écrits*, 58–66. I am omitting most but not all of the words deleted by Duchamp himself, which are carefully cited by Sanouillet in his footnotes, but, for the sake of clarity, I am also adding some punctuation and also, in order both to save space and to clarify thematic continuity, I am occasionally joining some originally disjointed phrases together into paragraphs. None of these clarifications, however, alter the essential meaning or nonmeaning of the original statements, which the reader may check in *Écrits*.

44. Clair, *Catalogue*, 54, no. 71 (24 x 31 cm.).

45. For the most complete, although still highly speculative, study of this mysterious sojourn in the Bavarian capital, see T. de Duve, “Resonances of Duchamp’s Visit to Munich,” in Kuenzli and Naumann, 41–63 (this is a translation of the fifth chapter of Duve, *Nominalisme pictural*). See also the essay by Veit Loers, “Münchens okkultisches Netzwerk,” in Loers, 238–80.

46. MD, as quoted in d’Harmoncourt and McShine, 263; MD, in Tomkins, *Bride*, 24.

47. Poisson, *Théories*, 110. This definition was probably derived from (or certainly echoes) Pernety, 119, where one reads: “L’Épée: C’est le feu des Philosophes, de même que la lance, le cimetière, la hache, etc.”

48. For the earlier editions and their illustrations, see Lennep, *Alchimie: Contribution*, 194–201; the 1899 French translation is cited by Henderson, *Duchamp in Context*, 26, 249 n. 102 (her fig. 32).

49. On this work, see Lennep, *Alchimie*, 215–16.

50. Pernety, 49: “Androgine ou Hermaphrodite”; see also 155 (“Hérmaphrodite”), 310 (“Rébis”).

51. Actually the picture, borrowed from an earlier publication, does not exactly conform to the text: rather than the Bride described here, the figure is Mercury, a male whose genitalia have been opportunely covered by a splotch. The swordsmen, again contrary to the explicit text, are actually “fixing” the volatile elements; for the original (1599) meaning of the print, see Lennep, *Art and Alchimie*, 87.

52. Stolzius, Emblem II; for the extended Latin equivalent, see note 57 below.

53. All the examples immediately following are taken from Linden; for the entirety of “Vanitie (I),” see G. Herbert, 76–77.

54. Rulandus, 379.

55. Pernety, 176: “Joie des Philosophes.” In modern French slang, the kind Duchamp used, *jouir* means “to come”; Giraud, 154–55.

56. On this work and its illustrations, see Lennep, *Alchimie: Contribution*, 220–27.

57. *Musaeum Hermeticum*, 397–98, “II. Clavis.”: “Virgo nuptum elocanda, prius varietate vestium pretiosissimarum splendide exornatur, ut sponso suo placeat, et sui inspectione amoris incendium in eo penitus excitet: Cum vero sponsa suo conjugii carnalia ritu copulanda est, diversitas omnis vestium tollitur, nec quicquam sponsa

retinet, nisi illud, quod sibi à Creatore in nativitate concessum est. . . . Verum, amice mi, notes hoc in primis, ut sponsus cum sua sponsa nudus cum nuda jungatur: ideoque omnes res praeparatae ad vestium ornatum et pulchritudinem faci ei spectantes iterum removeri debent, quo nudi sepulchrum possideant, pro ut nudi nati sunt, ne eorum semen peregrini conmixtione corrumpatur.”

58. Poisson, *Théories*, 64, 85–86: “Le Soufre et le Mercure, principes mâle et femelle, étaient symbolisés par un homme et une femme, ordinairement un roi et une reine. C’est ainsi qu’ils sont représentés . . . sous le symbole du roi et de la reine au premier symbole des *Douze clefs* de Basile Valentin, page 393 du *Museum hermeticum* [equipped with my fig. 9]. L’union du roi et de la reine constituait le mariage philosophique. . . . Dans les traités hermétiques manuscrits le roi est vêtu de rouge, et la reine de blanc. Leurs habits désignent les matières étrangères, les impuretés qui les souillent. La figure suivant du *Rosaire* les représente nus, c’est-à-dire purifiés, débarrassés de leurs impuretés, de leurs habits. . . . Nous trouvons ici désignée allégoriquement la purification de l’or par l’antimonie (stibium, en latin) et de l’argent par le plomb (Saturne). La purification était symbolisée par une fontaine où le roi et la reine, le Soleil et la Lune, venaient se baigner.” Incidentally, Poisson’s citation of the page number for this engraving in the *Hermetic Museum* is correct, just as his synopsis of the Latin text is accurate (see preceding note).

59. See Waite, ed., *Hermetic Museum* (1893), 327–28, which differs slightly from my translation, as in n. 57; my fig. 9 appears on p. 327.

60. Recent investigation shows that Duchamp was likely never in the Münchener Bibliothek; see Daniels, 345 n. 73.

61. Besides Waite’s *Hermetic Museum* (1893), which did reproduce both this print (fig. 9) and its accompanying text in English, chronologically appropriate German studies include: A. Bauer, *Chemie und Alchymie in Oesterreich*, Vienna, 1883; J. F. Glemin, *Geschichte der Chemie*, Jena, 1798; H. F. M. Kopp, *Beiträge zur Geschichte der Chemie*, Brunswick, 1869–1875; idem, *Die Alchemie in alterer und neuerer Zeit*, Heidelberg, 1886; K. C. Schmieder, *Geschichte der Alchemie*, Halle, 1832; and, finally, A. Stange, *Die Zeitalter der Chemie im Wort und Bild*. Leipzig, 1908, the most likely candidate (and so fully cited in the bibliography).

62. Clair, *Catalogue*, nos. 74, 75.

63. Clair, *Catalogue*, nos. 72, 73.

64. MD, “Apropos of Myself” (1964), quoted in d’Harnoncourt and McShine, 263; for a French translation, see Sanouillet, *Écrits*, 223–24.

65. Pernetty, 373: “Vierge.”

66. Pernetty, 120: “Épouse,” “Épouse enrichie des vertues de son époux,” “Épouser,” “Époux.”

67. Lennep, *Art and Alchimie*, 48–49. Similarly, this resplendent figure, now labelled “Anima Mercurii,” appeared in an engraving included in Leonard Thurneysser’s *Quinta Essentia* (Münster, 1570); see Lennep, *Alchimie: Contribution*, Fig. 41.

68. Before this, as is usually the case with alchemical art, the motif had already appeared in various manuscript paintings; for some examples, see Lennep, *Alchimie: Contribution*, figs. 54, 120; Roob, illustrations on pp. 36, 503, 518.

69. One answer (not mine) has been to translate *arbre* as representing the transmission shaft in a modern automobile; see Henderson, *Duchamp in Context*.

70. Pernety, 91–92: “Couronne céleste (Corona Caelica),” “Couronne royal,” “Couronne victorieuse.”

71. Ibid., 140: “Fleurs”: “Fleur du Soleil,” “Fleur du sel des philosophes,” “Fleur de l’or,” “Fleur de la sagesse,” “Fleur de pécher,” “Fleur saturnienne,” “Fleur de l’air,” “Fleur de l’eau,” “Fleur de la terre,” “Fleur simplement dit, ou fleur d’airain,” “Fleur de cheiri,” “Fleur du soleil,” “Fleur de sapience,” “Fleur de l’or.”

72. Ibid., 122: “Essence: Quintessence,” “Essensifier”; 306–07: “Quintessence,” “Quintessence des éléments,” “Quinte Nature.”

73. Poisson, *Théories*, 96. The engraving Poisson refers to is the frontispiece to the second volume of the *Musaeum Hermeticum*, and also serves as a kind of book plate to Thomas Norton’s famous *Ordinall (Tractatus Chymicus, dictus Crede Mihi sive Ordinale)*. Unfortunately, Norton’s text does not have much to say about the Athanor of the Alchemists.

74. Ibid., 105–06.

75. Ibid., 122, which also states that “ces deux figures ont tirées du *Viatorium spagyricum*.” For more on this process, see Pernety, 303–04: “Putréfaction.”

76. Poisson, *Théories*, 23.

77. Poisson, *Théories*, 115.

78. Linde, “Lesotérique,” in Clair, *Abécédaire*, 68. We now know, due to (for instance) our analysis of Duchamp’s use of Poisson’s *Planche 14* (see my fig. 5) for his painting of *Spring* (see fig. 3), Duchamp had been using the *Théories et Symboles des Alchimistes* long before, since at least mid-1911. In short, Linde was right in this case too, but Duchamp’s reliance upon Poisson was much more extensive than even Linde recognized.

79. Clair, *Catalogue*, 82–83, no. 101; “Glissière contenant un Moulin à Eau en métaux voisins.”

80. Poisson, *Théories*, 43.

81. Poisson, *Cinq Traités*, 91: “Nous avons en effet démontré clairement dans notre *Traité* des minéraux que la génération des métaux est circulaire, on passe facilement de l’un à l’autre suivant un cercle, les *métaux voisins* ont des propriétés semblables; c’est pour cela que l’argent se change plus facilement en or que tout autre métal” (emphasis mine).

82. Sanouillet, *Écrits*, 45, 120–22.

83. Poisson, *Théories*, 94, 117, 119: “La marche des deux oeuvres [le Petit et le Grand Oeuvre] était identique, sauf que le petit magistère s’arrêtait à *l’apparition* de la couleur blanche, tandis que le grand magistère poursuivait jusqu’à la couleur rouge. . . . La fermentation est l’opération qui suit *l’apparition* de la couleur rouge. . . . Enfin vient la rubification, caractérisée par *l’apparition* de la couleur rouge indiquant que l’oeuvre est parfait. A cette classification, basée sur la succession [ou *apparitions* successifs] des couleurs, on peut ramener toutes les opérations qu’ont imaginées les alchimistes” (emphasis mine).

84. For further mentions of such lexical pursuits, see Duchamp’s Notes 22–29. In spite of one direct reference to the *Dictionnaire Larousse* in Note 29, I am happy to believe that the real bibliography for these aide-mémoire must include Pernety and/or Poisson; see particularly Poisson, *Théories*, 151–56, “Dictionnaire des symboles hermétiques.”

85. What follows is, I repeat, only a scattered sampling. For Duchamp's recurring motif of "eau et gaz à tous les étages," see *Théories*, 14, 22, 24; for Duchamp's central figure of the "pendu femelle," see *Théories*, 73, "Synonymes de Mercure" (Poisson, "Table Analytique," 181); for the idea of a "Large Glass" as a container for an eroticized alchemical drama, see *Théories*, 104, where transmutation takes place in "un sepulcre de verre ou sont renfermés le roi et la reine" (the same royal couple who were, of course, the subjects for some pre-*Large Glass* paintings and drawings); for the allegorical crowning of Duchamp's *Mariée* at the climax of his alchemical drama, see *Théories*, 153–54, "Couronne"; for the image of this Virgin being, as Duchamp put it, a "tree-type," see *Théories*, 94, 152, "Arbres"; for Duchamp's "régimes," see *Théories*, 119 (and so on); see also *Théories*, 177–84, "Table analytique des matières." In any event, Poisson generally only provides random digests of Pernety's much longer articles on the same (plus many more) *termes hermétiques*.

86. Papus, 394–402. The strictly occultist mirror-image also appears, just as one should expect, in strictly occultist discussions of the mostly esoteric Fourth Dimension, a major topic in chapter 7.

87. For the strictly technological materials illustrated in the *Large Glass*, see throughout Henderson, *Duchamp in Context*.

88. Clair, *Catalogue*, no. 82.

89. Pernety, 289–90: "Poudre de Projection," "Poudre noire," "Poudre blanche," "Mettre en poudre."

90. *Ibid.*, 281–82: "Pierre Philosophale," "Pierre."

91. *Ibid.*, 205–08: "Matière." In this case, I have only quoted the relevant parts of one of Pernety's longest articles.

92. *Ibid.*, 78: "Chaos."

93. *Ibid.*, 79: "Chariot de Phaëton"; 108–11: "Eau"; 147: "Gaz"; 203: "Gaz"; 215: "Matrice"; 236: "Moulin"; 287: "Poids"; 345: "Tamis"; 371: "Verre" (etc.). One could, doubtlessly, find much more of the Duchampian terminology originating in Pernety, if one were willing to look up all the possible close synonyms for each word used by the artist: *genug noch*.

94. Poisson, *Théories*, 140: "hièrogllyphes du cimetière des Innocents, le corps, l'esprit et l'âme ou matière de la Pierre [sont] comme des hommes et des femmes vêtus de blanc, et ressuscitant d'entre les tombeaux pour signifier la blancheur vivificatrice qui vient après le mort, [ou] le noir, la putréfaction." For more of this author's comments about this famous print, see Poisson, *Nicolas Flamel*. In short, the only way that its wholly biblical subject matter ever became alchemical was due to the pseudo-Flamel publication of 1612; see Dixon, "Textual Enigma."

95. Clair, *Catalogue*, no. 93.

96. Pernety, 128: "Féces." Maurizio Calvesi (*Duchamp invisible*, 145–47) has also sought in Pernety's *Dictionnaire* the original significance of Duchamp's "chocolat au lait." He however takes it to represent "putrefied Matter," as based on Pernety's article "Graisse," a synonym for the blackened alchemical Matter, "que ressemble à de l'huile noire" (149). As already stated, I would instead reaffirm that Duchamp's symbolic milk-chocolate "ressemble plus à de la merde marron de l'homme."

97. Poisson, *Cinq Traités*, 107–09. One could, of course, quote much more, to the same effect, from this collection of hermetic primary documents. But why bother,

if the point has been truly made? Nonetheless, one more long citation is called for, as given below.

98. Besides those hermetic motifs already cited, see Rulandus: “Aurora,” “Milky Way.” See also Pernety, 184: “Lait de la Vierge ou Lait des Philosophes.”

99. Pernety, 128–29: “Femelle,” “Femme,” “Femme des philosophes” (note that these entries begin on the same page as “Fèces,” as quoted above).

100. Pernety, 292–94: “Principe.”

101. Poisson, *Cinq Traités*, 112–21. The second to last sentence, including “on peut tout tirer,” is however taken from p. 101, where it is followed by another sentence obviously known to Duchamp: “Nous travaillerons donc ces corps en séparant par *décomposition*, ou encore par distillation, leurs parties composantes . . .” (102). In any event, “tirer” and “tirées” (to extract; extractions) are encountered throughout this essay.

CHAPTER 6

1. Ramírez, *Duchamp*, 27–28; Cabanne, *Entretiens*, 186: “Il faudrait que je réfléchisse deux ou trois mois avant de me décider à faire quelque chose qui ait une signification. . . . Il faudrait qu’il y ait une direction, un sens. C’est [ce sens] la seule chose qui me guiderait.”

2. Daniels, 69, 71; for the historical, idea vs. handwork arguments, see Panofsky, *Idea*; Wittkower and Wittkower.

3. Daniels, 201, 212–13, 216–17, 225, 227; for the Boronali episode, see 22–23, 293.

4. For the documentary history of a nearly unprecedented art-historical apotheosis of MD, ca. 1960–1995, mainly centered on the supposedly artless ready-mades, see Roth, “MD and America,” especially chapters 2, 3.

5. Masheck, 13.

6. James, *Principles of Psychology*, I: 347; emphasis mine.

7. Ouspensky, *Tertium Organum*, 13; for more on Ouspensky’s role (also Bragdon’s) in modern artistic theory, see Henderson, *Fourth Dimension*.

8. Waite, *Hermetic Museum*, 332; *Musaeum Hermeticum*, 401: “. . . quod creatum illud ante fuerat, et artifex saltem per semen naturae augmentationem ejus et magisterium comprobet.”

9. Cabanne, *Dialogues*, 70; *Entretiens*, 122–23.

10. MD, “The Creative Act,” in Lebel, 77–78; emphasis mine.

11. As Daniels points out however, “durch den Kontext des Surrealismus . . . die Intentionslosigkeit der Ready-mades verändert wird” (p. 221).

12. Breton, “Le Phare de la Mariée” (1935), as reprinted in Lebel, 89.

13. These celebrated works are illustrated in various publications; see, for instance, Bonk; Hopps; Linde; and Schwarz, *Complete Works*. When not simply descriptive, the accompanying texts are, for me at least, mostly gibberish. Scarcely more useful are the explanations, some cited below, given by Duchamp’s collaborator Arturo Schwarz, in *Complete Works*.

14. For the ready-mades, see Daniels, especially 166–232; Ramírez, *Duchamp*, especially 19–65. Even though, being *alquímicas*, my more narrowly focused conclusions are not at all like the cohesive interpretations advanced by Ramírez, our conclusions

(*como amigos y colegas*) are essentially complementary; on the other hand, Daniels rejects out of hand this interpretation: “Aber mit Sicherheit läßt sich in der Alchemie nicht der universelle Schlüssel zu [Duchamps] Werk zu finden” (256). However, as we shall see, Alchemy is “the universal key to Duchamp’s work.”

15. Clair, *Catalogue*, 70, no. 87: *Roue de Bicyclette*.

16. Cabanne, *Dialogues*, 47; *Entretiens*, 79.

17. MD, quoted in Schwarz, *Complete Works*, 442.

18. Clair, *Catalogue*, 81, no. 99: *Porte-bouteilles ou Séchoir à bouteilles ou Hérisson*.

19. Schwarz, *Complete Works*, 449.

20. Clair, *Catalogue*, 84, no. 102: *In Advance of the Broken Arm (En avance du bras cassé)*.

21. Schwarz, *Complete Works*, 456. In this case, Schwarz’s explanation, while most unlikely, is worth quoting in order to reveal the usual sort of thing that has been said repeatedly about a work like this one: “This item again illustrates the strength of the castration trend in Duchamp’s psyche—he calls a shovel, which is an unmistakable phallic symbol, a ‘broken arm.’ . . . This item may then also be a reference to Suzanne’s broken marriage vows [etc.]”

22. Cabanne, *Dialogues*, 48; *Entretiens*, 80.

23. Clair, *Catalogue*, 86, no. 106: *Peigne*. It specifically appears to be a steel comb of the sort used to groom dogs (*peigne à chien*), and the Arensbergs had wire-haired terriers, of whom they were uniquely fond; for the background on this piece, see Sawelson-Gorse, “MD’s Silent Guard,” 144–48. For the interpretation following, see Moffitt, “Cryptography and Alchemy.”

24. MD, quoted in Schwarz, *Complete Works*, 461.

25. Sawelson-Gorse, “MD’s Silent Guard,” 146, providing further details on 148. Her interpretation seems sound, but she does not mention the pun (*peigne-péne*) that seems actually to underly the cryptographic system she elucidates so well.

26. Arensberg, *Dante*, 237.

27. *Ibid.*, 306; for other, similarly egregious, *PENE* discoveries by Arensberg, see 250, 291.

28. *Ibid.*, 226–27, 229–30, 237–39, 252–53.

29. Arensberg, *Shakespearean Mystery*, 126–28; for his Sendivogius quotations, Arensberg here cites his textual source: Waite, *Secret Tradition*, 248–49. Alan Jutzi informs me that Waite’s treatise has again turned up in the Huntington Library among Arensberg’s other books. For Arensberg’s reproductions of Maier’s engravings, see Arensberg, *Shakespearean Mystery*, plates 91–108: illustrating the title page from Maier’s *Atalanta Fugiens*, as well as Maier’s emblems 2, 4, 5, 6, 7, 22, 23, 24, 27, 30, 33, 34, 38, 39, 41, 44, and 50.

30. Clair, *Catalogue*, 88, no. 108: *Pliant . . . de voyage*.

31. Schwarz, *Complete Works*, 463. *Faute de mieux*, Schwarz’s voyeurism thesis seems as plausible as any other known to me, and so maybe the underlying idea is, after all, “sexual compliance.”

32. Clair, *Catalogue*, 90, no. 111: *Trébuchet*; 91, no. 112: *Porte-chapeau*; see also Schwarz, *Complete Works*, 468.

33. Clair, *Catalogue*, 92–93, 114: *Tu m’ . . .*

34. Duchamp, quoted in Schwarz, *Complete Works*, 471, where the objects in this retrospective inventory are enumerated.

35. Schwarz, *Complete Works*, 471. What I think is a much more credible explanation for the details of *Tu m' . . .*, namely orthodox esotericism, will be put forth in chapter 7.

36. Dreier and Matta Echauren, as reprinted in Masheck, 109.

37. For Dreier's Theosophical art philosophy, see Saarinen, 245, 248; and Bohan, 15ff.; for the major traits of Theosophical and Anthroposophical pseudophilosophy and art theory, see Mäckler; Ringbom, *Sounding Cosmos*; also Moffitt, *Occultism in Avant-Garde Art*, 70ff., 110ff. (and bibliography).

38. Since it is not my intention to interpret every work executed by Duchamp between 1915 and 1923, for the art, the reader is referred to Schwarz, *Complete Works*, and, especially, Clair, *Catalogue*; Henderson, *Duchamp in Context*; Ramírez, *Duchamp*; and, for the biographical details, to Gough-Cooper and Caumont, *Plan and Ephemerides*; Tomkins, *Duchamp*.

39. For a comprehensive analysis of the structure and content of emblematic literature, with an exhaustive bibliography of source materials, see Praz, *Studies*.

40. MD, quoted in Schwarz, *Complete Works*, 442.

41. MD, "A propos des 'Ready-mades'," quoted in Sanouillet, *Écrits*, 191–92.

42. For these texts, see Schwarz, *Large Glass* (144 Notes); and, for 289 more posthumously discovered and published Notes, see Matisse, *Notes*. As before, citations from the Schwarz collection will be cited in the text.

43. For this terminology, see Praz, *Studies*.

44. The reader is reminded that at the Lycée Corneille in Rouen from 1897 to 1907, Duchamp was exposed to a rigorous classical curriculum, consisting of, besides the major works of French literature, "a heavy academic menu: philosophy, history, rhetoric, math, science, English, German, Latin, and Greek": Goldfarb Marquis, 32.

45. My quotations and translations are drawn from the original text of 1618, which I have on microfiche. On this seminal work, see Jong; for its alchemical art historical context, see Lennep, *Alchimie: Contribution*, especially 181–95. Happily, there now exists a serviceable and economical English version of the magisterial alchemical emblem book: Godwin, Michael Maier's "*Atalanta Fugiens*"; see also (in Spanish) Sebastián, *Michael Maier*, introduced by J. F. Moffitt).

46. For the proof backing up this conclusion, see Arensberg, *Shakespearean Mystery*, plates 91–108, illustrating the title page from Maier's *Atalanta Fugiens*, as well as Maier's emblems 2, 4, 5, 6, 7, 22, 23, 24, 27, 30, 33, 34, 38, 39, 41, 44, and 50.

47. Petrus Bonus, quoted in Jong, 36.

48. Various authors, quoted in Jung, *Psychology and Alchemy*, 78, 117. Whereas one appreciates the diligence with which Jung retrieved his materials from their original documentary sources, it may be argued that the ends to which the great psychologist put these statements were largely anachronistic, suiting his uniquely modern, psychoanalytic ends.

49. Barcius, quoted in Schwarz, "Alchemist Stripped Bare," in d'Hamoncourt and McShine, 81–98 (89).

50. See, for instance, Waite, *Hermetic Museum*, 78, 180; his emphasis.

51. Pernety, 81, "Chose vile"; see also 281, "Pierre Philosophale," where it is additionally explained that "on régarde la Pierre Philosophale comme une chimère pure, et les gens qui la cherchent sont regardés comme des fous [mais] les plus célèbres

et les plus savants Chymistes modernes non seulement ne regardent pas la Pierre Philosophale comme une chimère, mais comme une chose réelle.”

52. Maier, *Atalanta Fugien* (1618 ed., microfiche), 153, 154.

53. Clair, *Catalogue*, 103–05, no. 130: *Why not Sneeze Rose Selavy?* The French equivalent (not provided by Jean Clair) would be *Pourquoi pas n'éternue, Rrose Sélavy?*

54. MD, quoted in Schwarz, *Complete Works*, 487.

55. Pernety, 353.

56. Poisson, *Théories*, 103; besides “cage” and “prison,” other names for alchemists’ cookers included “henhouse,” “philosophical egg,” “sepulchre,” “sphere,” and “green lion.”

57. Pernety, 294–95: “Prison.”

58. Pernety, 260: “Oiseau.”

59. Pernety, 203: “Marbre.”

60. Rulandus, 460.

61. Pernety, 320: “Roue.”

62. Duchamp, quoted in Schwarz, *Complete Works*, 442.

63. Rulandus, 460.

64. Pernety, “Cercle,” 76–77.

65. *Ibid.*, 50: “Angle.” The term so often used by Pernety, *éloignée*, is an odd one, but, as every Duchamp scholar well knows, it is found several times in Duchamp’s Notes for his *Large Glass*. Now they may understand what it was really meant to convey.

66. Maier, *Atalanta Fugiens* (1618 ed.), 93.

67. *Ibid.*, 95.

68. *Ibid.*, 65–67.

69. Clair, *Catalogue*, 70–71, no. 88: *Pharmacie*.

70. Daniels, 171.

71. Cabanne, *Entretiens*, 79; and Schwarz, *Complete Works*, 445.

72. Rulandus, *Lexicon*, 379. Pernety (*Dictionnaire*, 91) also explains that red, *le rouge*, signifies the “crowning of the Great Work,” thus, as I see it, naming the real context of Duchamp’s “Crowned Virgin,” as in his Note 1 (as explained in chapter 5). We will recall that, according to Pernety, “Enfin, la couleur rouge se montre, et c’est la fleur de leur or, leur couronne royale, etc.” Similarly, “Couronne royale: C’est la Pierre parfaite au rouge, et propre à faire la Pierre de projection.”

73. *Turba Philosophorum*, 67.

74. Lennep, *Art et Alchimie*, 23.

75. Pernety, 16, “Préface”; similarly, “La verte marque l’animation et la végétation de la matière” (91); see also 193–94, “Lion vert.” For the traditional hermetic sources and significance of Duchamp’s alchemical Virgin, as an “arbre-type,” so described in his Notes 1 and 66, see (besides chapter 5) Szulakowska, “Tree of Aristotle.”

76. Pernety, 159–60: “Hiver.”

77. Maier, *Atlanta Fugiens* (1618 ed.), 61–63.

78. Cabanne, *Entretiens*, 80, adding: “J’ai fait d’autres objets à inscription comme la pelle à neige, sur laquelle j’ai écrit quelque chose en anglais. Le mot ‘ready-made’ s’est imposé à moi à ce moment-là; il paraissait convenir très bien à ces choses qui n’étaient pas des oeuvres d’art.”

79. Pernety, 247: “Neige (Sc[ience] Herm[étique]).”

80. Rulandus, 70, 247, 274.
81. Maier, *Atalanta Fugiens* (1618 ed.), 33–35.
82. Clair, *Catalogue*, 72, no. 89: *Avoir l'Apprenti dans le Soleil*.
83. Unpublished letter to S. Stauffer, 19 August 1959, in *ibid.*
84. Papyrus, 202–04.
85. Maier, *Atalanta Fugiens* (1618 ed.), 189–91.
86. Pernety, 336: “Soleil.”
87. Clair, *Catalogue*, 90, no. 110: *Fontaine*. The best interpretation to date of this (in)famous work remains W. Camfield, “Marcel Duchamp’s Fountain,” in Kuenzli and Naumann, 64–94. A possibly significant iconographic parallel (or even a source) for this image may be found in a political cartoon of 1898. Drawn by Caran d’Ache, it is entitled *La Verité sort de son puits* (“Truth Emerging from Its Sources”) and shows Émile Zola standing in a toilet and holding the doll-like figure of Captain Dreyfuss; Caran’s cartoon is illustrated in B. Tuchman, *Proud Tower*.
88. Letter to Suzanne Duchamp-Crotti (11 April 1917), in Camfield, “Duchamp’s Fountain,” 71–72: “Une de mes amies sous un pseudonyme masculin, Richard Mutt, avait envoyé une pissotière . . .”; see also Daniels, 177, 328 n. 31.
89. MD, quoted in Daniels, 28.
90. Cabanne, *Dialogues*, 55; *Entretiens*, 94.
91. Schwarz, *Complete Works*, 466.
92. For the fame of this work, see again Camfield; see also Canfield, “Marcel Duchamp’s *Fountain*: Aesthetic Object, Icon, or Anti-Art?,” in Duve, *Unfinished MD*, 133–78.
93. For this Note, see Schwarz, *Large Glass*, 139: Note 88 (my source for all the other numbered Notes).
94. Pernety, 215: “Matrice.”
95. For these illustrations of myriad alchemical infant-pissers, see Lennep, *Art and Alchimie*, figs. 45, 61; Klossowski de Rola, figs. 3, 6; Roob, 474.
96. Rulandus, 325, 438.
97. Pernety, 381.
98. Janis, quoted in Camfield, “Aesthetic Object, Icon, or Anti-Art,” in Duve, *Unfinished MD*, 156.
99. Poisson, *Théories*, 154.
100. Poisson, *Théories*, 152.
101. Pernety, 141: “Fontaine.”
102. Rulandus, 448–54, “Visions.”
103. Maier, *Atalanta Fugiens* (1618 ed.), 169–71.
104. Poisson, *Théories*, 152–54.
105. Maier, *Atalanta Fugiens* (1618 ed.), 145–47.
106. See Breton, as in the “Phare de la Mariée”; Breton’s statement was largely worked up from the scenario contained in Duchamp’s Notes 1 and 66 (quoted at length in chapter 5), which we now must believe refers to wholly alchemical content.
107. Clair, *Catalogue*, 96, no. 121: “L.H.O.O.Q.” See also Cabanne, *Entretiens*, 107–09, for Duchamp’s disavowal of any symbolic intention in his “LHOOQ,” a transmutation of Leonardo’s *La Joconde*. This is yet another verbal disclaimer that most likely represents a patently false assertion, at least in the light of what is revealed here.

108. Péladan, quoted in Praz, *Romantic Agony*, 320 (my translation).
109. For this famous photograph, see the cover of Bailly.
110. Lévi, *Transcendental Magic*, chapter V, “The Pentagram,” 63–70; for very much the same alchemical interpretation of such a “Star,” see also Pernety, 59: “Astre,” “Astrum”; 123: “Étoiles des philosophes.”
111. Clair, *Catalogue*, 114–15, no. 136: *Obligations pour le Roulette de Monte-Carlo*.
112. For this mock (or spoof) certificate, with an illustration, see Howe, 86–87, 239–40, Plate VIII.
113. Clair, *Catalogue*, 115.
114. Man Ray, 235–36.
115. Lévi, *Transcendental Magic*, 215, 307–09.
116. For a long, sometimes tendentious discussion of the potential significance belonging to this and other gender transmutations by Duchamp, see Jones, *Engendering of MD*, especially 143ff. Whereas Amelia Jones anachronistically argues her thesis from two polemical positions obviously *wholly* unknown to Duchamp—feminist theory and postmodernist deconstruction—my arguments instead proceed from the acknowledged intellectual commonplaces of his Symbolist youth: Hermeticism and alchemical symbolism. Nonetheless, she does admirably document how Duchamp has been posthumously [mis-] read according to those wholly anachronistic and (therefore) historically irrelevant feminist and deconstructionist rhetorical strategies.
117. Clair, *Catalogue*, 105: no. 131.
118. Cabanne, *Entretiens*, 111: “Pourquoi ne pas changer de sexe? C’est beaucoup plus simple!”
119. Pernety, 320: “Rose,” “Rose minérale,” “Rose,” “Rose de vie,” “Rosée,” “Rosée ou rosée céleste,” “Rosée solaire. Voyez pluie d’or.” (I may gratuitously mention in passing that I have often seen advertised, under “Servicios personales” in the Spanish newspapers, the offer of a certain kind of “lluvia de oro”; but surely this is different from Pernety’s hermetic “Pluie d’or.”)
120. Clair, *Catalogue*, 103, no. 129: *Belle Haleine* (a pun: “beautiful breath”).
121. Maier, *Atalanta Fugiens* (1618 ed.), 141–43.
122. *Ibid.*, 143.
123. *Ibid.*, 161–63.
124. *Ibid.*, 162.
125. Clair, *Catalogue*, 60–61, nos. 77: *Erratum Musical*; 78: *La Mariée mise à nu* . . . (with a complete transcription of the text for no. 78); see also Byars; C. L. P. James, “Duchamp’s Silent Noise/Music for the Deaf,” in Kuenzli and Naumann, 106–26. At one time, but evidently no longer, there was available a recording of these two pieces with a typically numbing, “chance” composition by John Cage on the other side.
126. Norton, in *Musaeum Hermeticum*, 480ff. (Cap. V); cf. Waite, *The Hermetic Museum* (1893), II: 39–41.
127. Pernety, 83: “Cire”; 328–29: “Sceau ou SéeI,” “SéeIler.”
128. On the musical scores by Maier, all “fugae per canonem” in three parts, see F. H. Sawyer, “The Music in *Atalanta Fugiens*,” in Read, 281; Rebotier; Streich, “Musikalische und psychologische”; Streich, “Musikalische Symbolik”; Moffitt, “Arte y alquimia,” Preface to Sebastián, *Alquimia y Emblemática*, especially 20ff. For some

broader contexts, demonstrating the sheer ubiquity of “alchemical music,” see also Wellesz; Ammann; and D. P. Walker, “Kepler.” Joscelyn Godwin prepared a haunting recording of the complete scores in the *Atalanta Fugiens* to accompany his 1989 translation of Maier’s text. To my professionally unlearned ears, the often discordant results sound most like the slightly earlier musical compositions of Don Carlo Gesualdo (ca. 1560–1613).

129. Maier, *Atalanta Fugiens* (1618 ed.), 8.

130. *Ibid.*, 6–10, “Praefatio ad Lectorem.”

131. *Entretiens*, 67.

132. See, for instance, Pernety, 157: “Hespérides.”

133. Maier, *Atalanta Fugiens* (1618 ed.), 2, “Epigramma Authoris”: “. . . Hippomenes virtus est Sulphuris, illa fugacis Mercuri in cursu femina victa mare est. Qui postquam cupido se complectuntur amore in fano Cybeles. . . .”

134. *Ibid.*, 9.

135. See also Moffitt, “Fin-de-Siècle Parisian Hermeticism.”

136. Smithson, quoted in Roth, “Smithson on Duchamp,” 47.

137. Cabanne, *Entretiens*, 51–52; *Dialogues*, 31.

138. Pernety, 321: “Ruse.”

CHAPTER 7

1. Jollivet-Castelot, *Comment on devient alchimiste*, 49–58, “rapports de l’Alchimie et de la Kabale;” 59–70, “Le Tarot Alchimique,” with “Le Pendu” appearing on 60, 68.

2. To date, by far the best, comprehensive art-historical study of this strictly modernist theme is Henderson, *Fourth Dimension*. For the most detailed study of the Fourth Dimension as it strictly pertains to Duchamp’s practices, without however making any references to his significant influences from occultist literature, see Adcock. The best art-historical studies on the strictly occultist interpretations and sources of the fourth-dimensional motif is Gibbons, “Cubism and ‘The Fourth Dimension’”; see also Henderson’s provocative 1995 essay, “Die moderne Kunst und das Unsichtbare: Die verborgenen Wellen und Dimensionen des Okkultismus und der Wissenschaften,” in Loers, 13–32.

3. Unfortunately, this remains as yet a subject little studied by art historians; for what immediately follows, I am mainly indebted to Szulakowska, “Geometry and Optics”; see also Debus.

4. For the diagrammatic prehistory of alchemical illustration, see Obrist, especially 67–116; for the more developed kinds of perspectival figuration with many illustrations, chronologically arranged, see Lennep, *Alchimie: Contribution*; for perspective itself, the unhermetic kind, see Edgerton; Dalai Emiliani; Ivins; Panofsky, *La prospettiva*; White.

5. On synesthesia, a topic which sorely needs scholarly investigation in the modernist period, see Schrader; on Dr. Dee, see Clulee.

6. See Alberti.

7. Jollivet-Castelot, *Comment on devient alchimiste*, 35, 259–61, 266–67.

8. All subsequent quotes from Duchamp’s Notes are taken from Schwarz, *Large Glass*, (his numbering is cited here). The most important discussions of perspective in

the *Green Box* notations are found in Notes, 3, 4, 5, 6, 11 (actually a perspective drawing), 32, 33, 58, 69, 74, 84, 85, 93 (another inscribed drawing), 119, and 144. With few exceptions, among which might be counted Notes 11, 32, 33, 58, 69, 93, and 104, none of these really seem to describe the normal kind of perspective practices once commonly taught in an art school. Instead, the references are largely esoteric, meaning fourth-dimensional, and such as that subject will be defined here.

9. All quotes from Duchamp's Notes for *À l'infinif* are taken from Sanouillet, *Écrits*, 105–41, "À l'infinif." Like the rest, these materials have already been rigorously analyzed in Adcock. What follows is intended to complement his findings by providing a coherent pseudophilosophical context, *l'ésotérisme*.

10. For the historical development of geometrical schemes of spatial illusionism, see Edgerton; Dalai Emiliani; Ivins; White.

11. Poincaré, 52–54.

12. *Writings of MD*, 87–92, 100 (the reader is encouraged to consult the original jumble).

13. On this interpretive issue, see Panofsky, "Perspektive" (1925) rev. ed. *La prospettiva* (1979); see also Moffitt, "Archetypal Micro-Architecture," suggesting liturgical derivations and functions for some early perspectival *mises-en-scène*.

14. Cabanne, *Entretiens*, 64, 66–67.

15. Sanouillet, *Écrits*, 122.

16. For two studies on this erudite kind of anti-perspective, see Baltrusaitis, *Anamorphoses*; Leeman.

17. Lomazzo, quoted in Leeman, 13.

18. Jollivet-Castelot, *Comment on devient alchimiste*, 87–88.

19. Alberti, 51.

20. Bosse, 45–46.

21. See Papus, 394–402.

22. Papus, 28.

23. Even an assiduous scholar of these matters like Adcock has to admit that "there is very little biographical information available on Jouffret," other than a few references on the title pages of his books, such as that of the high decoration mentioned above, and the fact that he was an "ancien élève de l'École Polytechnique" (44). This is unfortunate, and my guess is that he could have been a member of, besides the Société Mathématique de France, one or more esoteric societies of the sort thriving in fin de siècle France.

24. Jouffret, v–xi, "Avant-Propos." In all my citations from Jouffret's *Traité*, I have substituted uppercase emphases for some originally italicized phrases. Italics are now reserved only for key phrases interpolated in the original French. The same procedure, capital letters substituting for an author's originally italicized emphasis, is used for other translated passages from obscure French texts, e.g., my citations from Noircarme, Pawlowski, and Revel.

25. Hinton, quoted in Jouffret, xiv–xv. The English author's writings are now made easily accessible in a Dover reprint: Hinton, *Speculations*.

26. Hinton, 107–08, 118.

27. Clair, *Catalogue*, 44, no. 57: *Portrait de Joueurs d'échecs*, Planche 11. The image was obviously significant for Duchamp as several preparatory studies exist, beginning in October 1911 (nos. 51–56). An earlier treatment on the same theme,

the canvas of the *Chess Party* (no. 39) executed in August 1910, is stylistically very conservative, or postimpressionist.

28. Jouffret, xv–xvi.

29. *Ibid.*, xv.

30. *Ibid.*, xxi–xxii. For an earlier published statement closely paralleling Jouffret's conclusions following, but one which makes no mistake about calling its conclusions wholly alchemical, see Jollivet-Castelot, *Comment on devient alchimiste*, 223ff., "Preuves de l'Unité de la Matière (Allotropie; Composition des Métaux)." I leave it to the interested reader to determine whether Jouffret (*même*) had read this blatantly alchemical treatise.

31. One of the very few to mention Papus is Linda Henderson, in her *Duchamp in Context*.

32. Papus, 61.

33. Jouffret, 186–93; his emphases. For a likely published source for some of Jouffret's esoteric chemical notions, see, among a few works concerning the strictly modern electrical and atomic, neo-alchemical subjects, Tifféreau (1889); see also Saussure (1891), plus further citations from the popular literature given in Henderson, *Duchamp in Context*.

34. For a morphology of pseudoscientific writings of the kind published by Jouffret, see the classic and amusing study by Gardner.

35. Cabanne, *Entretiens*, 66–67.

36. See Pawlowski.

37. Again the notable exception is Henderson, *Fourth Dimension*, 51–55. Whereas she has obviously carefully scrutinized this treatise, she did not then remark upon some of its more obviously esoteric aspects, which I shall now recover, according to my monothematic agenda.

38. For the sheer typicality of Pawlowski's thought patterns and motifs, see Weber, especially chapter 7, "The Old Arts and the New."

39. Pawlowski, 5, 7.

40. *Ibid.*, 7.

41. *Ibid.*, 8–9.

42. *Ibid.*, 23, 26; his emphasis.

43. *Ibid.*, 53–54.

44. *Ibid.*, 61–63. Pawlowski's "La Transmutation des atomes de temps" first appeared in the 20 May 1912 issue of *Comoedia*.

45. Papus, 5. Anybody with a copy of this work at hand can easily find many more such correspondances.

46. Pawlowski, 12–13.

47. *Ibid.*, 15–17. As Linda Henderson points out (*Fourth Dimension*, 119), this emphasis on humor only really appears in the later, beginning in 1923, editions of Pawlowski's *Voyage*. No matter: Duchamp's more idle or anarchic humoristic exercises do date from the mid-1920s.

48. Schwarz, *Complete Works*, 471.

49. Cabanne, *Entretiens*, 102–03.

50. According to Michel Sanouillet (*Écrits*, 103), we are dealing with a "Note écrite autour de 1913, de toute évidence parallèlement à celles des diverses Boîtes."

51. For this conclusion, see also Henderson, *Fourth Dimension*, 199.

52. Dreier, letter from April 1917, in Bohan, 12. Since she constantly referred to him in her letters as “Dee,” I additionally take this nickname (admittedly without any real proof) to represent an understood reference to Dr. John Dee (1527–1608), a nearly legendary occultist and alchemist of the Elizabethan period whom we have already observed to have been involved in alchemical geometry. See n. 5 above.

53. See Hinton, 124–25, “Figure 26.”

54. Bragdon, *Higher Space*, Commentary to Plate 16. As for a likely source for the banded Sticks in Duchamp’s *Tu m’ . . .*, see Bragdon’s illustrations of “Magic Tesseract”: *Higher Space*, Plates 20, 21. For some useful background on this Theosophical author, including the likelihood that his works were read by Duchamp, see Henderson, *Fourth Dimension*, 186–201.

55. Bragdon, *Higher Space*, 5. Again Bragdon must be working (without acknowledgment) from Hinton, who did in fact include a long excursus on the famous allegory in Plato’s *Republic*; see Hinton, especially 120–21.

56. Poisson, *Théories*, 58; cf. 126–44, “Couleurs.”

57. *Ibid.*, 128.

58. *Ibid.*

59. In this case, we do know of two exceptions to this “rule”; see especially Henderson, *Fourth Dimension*, and Adcock. Non-esoteric publications by the mathematicians Maurice Princet and Henri Poincaré were often mentioned by various avant-garde artists, including Duchamp, who had fourth-dimensional interests before WW I. We have, however, no reason whatsoever to suppose that any artists ever actually read their difficult publications. Moreover, nearly everything these artists actually said or wrote about their interests in this kind of hyper- or pseudogeometry indicates the fact of their artistic, nonmathematical, and largely metaphysical approaches to the problematic.

60. For the essentially tardy appearance of these publications, see Henderson, *Fourth Dimension*, especially 318ff, 353ff.

61. Sommerville, v–vi. Whereas for Lobachevsky and Bolyai one must consult Henderson, *Fourth Dimension*, especially 3–6, for what immediately follows, dealing with the strictly esoteric historical evolution of n-dimensional geometry, I am most indebted to Gibbons, “Cubism and the Fourth Dimension.”

62. More, 213.

63. Zöllner, 135, 147.

64. *Ibid.*, 149.

65. *Ibid.*, 147–49.

66. See Gibbons, “Cubism and Fourth Dimension,” citing a number of these important publications, omitting however Noircarme’s strictly Theosophical *Quatrième Dimension* (1912), about which I shall have much to say.

67. Leadbeater, *Astral Plane*, 3–4.

68. Golding, *Cubism*, 27, 58, 86.

69. Shepard, 344–45.

70. Apollinaire, quoted in Chipp, 222–24.

71. Gibbons, “Cubism and Fourth Dimension,” 140.

72. Gleizes, quoted in Mackworth, 86. This author also remarks, perhaps not surprisingly, that “Occultism was fashionable in intellectual circles [and] fortunetellers, sorcerers, practitioners of the black arts thrived in Paris at the time. . . .

Apollinaire's circle, with its strong taste for everything bizarre, was in touch with many of these sorcerers" (125).

73. On the mysticism rampant in the Cubist milieu, see G. Fabre, "Der literarische Zirkel der Abbatte: Der Okkultismus und der Avantgarde-Kunst in Frankreich, 1906–1915," in Loers, 350–73 (to me, alas, an inconclusive essay).

74. Raynal, quoted in Golding, *Cubism*, 129–30.

75. Glasser, 205.

76. These are points recently made and well documented (using other texts) by Linda Henderson; see especially her 1995 essay "Die moderne Kunst und das Unsichtbare: Der verborgenen Wellen und Dimensionen des Okkultismus und der Wissenschaften," in Loers, 13–27.

77. Attention to this obscure but most interesting publication was first paid by Henderson, *Fourth Dimension*, 45–46. Whereas Henderson made the important observation that Noircarme's text was unquestionably known to the Italian Futurist painter Gino Severini, I am about to make a much more emphatic evaluation of its importance to Duchamp than any previously attempted.

78. Noircarme, 1–11.

79. *Ibid.*, 33.

80. *Ibid.*, 53.

81. *Ibid.*, 8.

82. *Ibid.*, 33.

83. *Ibid.*, 81: "Ce sont leurs différents niveaux de conscience qui constituent en réalité les différents mondes. En réalité, la matière n'est pas limitée à 3 ou 4 dimensions; c'est la conscience qui est limitée et non pas la matière."

84. Papus, 397.

85. Noircarme, 53.

86. For a fold-out diagram showing the seven-stage, *va-et-vient* movements of *l'Involution et l'Evolution théosophique*, see Noircarme, as inserted between 104–05. For Papus on "l'Involution et l'Evolution," see *Traité Élémentaire*, 64ff., discussing facets of "l'évolution vers l'Unité."

87. Noircarme, 53.

88. *Ibid.*, 77.

89. For the most meticulous attempts to identify textual sources for Duchamp's pseudogeometrical terminology applied to his descending nude, see Adcock, 140–46; Henderson, *Fourth Dimension*, 126–29.

90. Pernety, 98: "Décomposition"; 114–15: "Élément[s]"; 236–37: "Multiplication," and others. For another text referring to another esoteric "décomposition chimique" (already quoted here), see Jouffret, 190ff.

91. MD, quoted in MacMorris, 2.

92. MD, as reported in Gay, 316.

93. See Noircarme, 63–82, "États de matière et états de conscience (Échelle des êtres)."

94. *Ibid.*, 66: "Les centres de conscience [sont] descendus dans cet univers pour y évoluer en lui et par lui."

95. See Noircarme, 73: linear diagram.

96. See Ringbom, *Sounding Cosmos*, for reproductions of similar diagrams.

97. Noircarme, 70–71: "Tous les états de matière se succèdent en une immense échelle depuis le monde à une dimension jusqu'à celui aux dimensions infinies . . . et

l'échelle des êtres (centres de conscience habitant des corps organisés) ne commencera que dans le monde à trois dimensions.”

98. *Ibid.*, 61.

99. *Ibid.*, 83–85, “Mesure de la 4e dimension.” Since one finds the verb *traverser* appearing repeatedly in fourth-dimensional publications of the period we have, accordingly, another fourth-dimensional explanation to complement our previous alchemical interpretation (in chapter 4) of certain “traversed” Kings and Queens (cf. MD-69, MD-70).

100. It was Jean Clair who discovered that Duchamp owned a copy of Revel's book dealing with Chance (see chapter 4, note 13). Revel's publisher, Chacornac, also published many other important occultist publications, among them Poisson's *Théories et Symboles*.

101. Thorough scholar that she is, Henderson does mention Revel's “idiosyncratic blend of ideas on chance and scientific occultism” (*Duchamp in Context*, 22, 65), but oddly does not really analyze his arguments about *le hasard*.

102. For instance, there is no mention of Revel's *Le Hasard* (nor any number of other essential primary documents) in the only art-historical study of Chance; see Watts. In short, the definitive, still much needed, monographic art-historical study of Chance—and the modernist artistic image wrought “by accident”—has yet to appear (I have one underway).

103. Clair, *Catalogue*, 76–77, no. 94: *Trois Stoppages-Étalons*.

104. Similar comments, given in Note 137, about certain threads to be glued on to a canvas seem to me instead to deal with Duchamp's *Broyeuse de Chocolat* (see MD-93).

105. Jouffret, 192.

106. Adcock, 7.

107. Noircarme, 10, 8; emphasis mine.

108. *Ibid.*, 43: “dans l'espace à quatre dimensions, nous pourrions de même faire tourner le solide autour du plan que le coupe par le milieu.”

109. *Ibid.*, 46: “dans le monde à quatre dimensions les rotations autour d'un plan sont, grâce à la quatrième dimension, choses aussi simples que celles autour d'un axe pour nous.”

110. *Ibid.*, 77: “Quatrième dimension: *Pouvoir de désagrégation et réagrégation* immédiate des corps, ‘Solve et coagula’”; Noircarme's italics.

111. Sanouillet, *Écrits*, 224–25.

112. MD, quoted in Kuh, 92.

113. *Ibid.*, 81.

114. Cabanne, *Entretiens*, 78.

115. MD, quoted in Schwarz, *Complete Works*, 131. I have, of course, chosen to explain the “Couple” cited by Duchamp in strictly alchemical, *mariage* parlance—for that makes the best sense of it.

116. Poisson, *Théories*, 33.

117. Papus, 34 and elsewhere.

118. MD, quoted in Kuh, 92.

119. Revel, 194.

120. *Ibid.*, 184.

121. *Ibid.*, 5.

122. *Ibid.*, 11.
 123. *Ibid.*, 15, 17, 18.
 124. *Ibid.*, 20–21.
 125. This is the date given by Michel Sanouillet in *Écrits*, 104.
 126. Revel, 22–25. For other simpler formulas, i.e., more like Duchamp’s “A-over-B” type, see 33, 42, 109–15.
 127. *Ibid.*, 27, 30–31, 47; cf. MD-142: “L’Opposition et les cases conjuguées sont reconciliées.”
 128. *Ibid.*, 154.
 129. *Ibid.*, 159.
 130. *Ibid.*, 91ff.
 131. *Ibid.*, 121–22: “Le Monde est un monde d’oppositions, dont le Hasard est la loi manifeste, des phénomènes [:] l’Absolu a une réserve inépuisable d’oppositions, dont quelques-unes, seulement, sont dans la nature de notre Monde.”
 132. *Ibid.*, 167; Revel’s emphasis: “On proclame la synthèse universelle de TOUS LES SYSTÈMES comme conséquence de la manifestation de tous les possibles.”

CHAPTER 8

1. Tomkins, *Duchamp*, 248.
 2. To the best of my knowledge, a sustained effort to establish this crucial alchemical connection in *Étant donné* . . . has only been attempted once before; see Messenger. However, it does not prove convincing; as one might expect from student work (an M.A. thesis), there is absolutely no recourse to the pertinent primary documents—which, in this case, were published mostly in either French or Latin—and all the research was conducted in English, and in mostly popularized, generally paperback explanations of alchemy (Burckhardt, de Rola, Manley Hall, Jung, Silberer, and others), none of which (naturally) were probably ever read by Duchamp.
 3. See, for instance, the various references to chess in Duve, *Unfinished MD*, especially 57–59, 77–81, 430–31.
 4. Man Ray, 237.
 5. Cabanne, *Dialogues*, 76; *Entretiens*, 132.
 6. Clair, *Catalogue*, 120, no. 142; the book appeared in a limited edition of only one-thousand copies.
 7. Roché, quoted in Clair, 120.
 8. MD, quoted in Schwarz, *Complete Works*, 60.
 9. Press notice, in Schwarz, 60.
 10. F. Le Lionnais, “Échecs et maths,” in Clair, *Abécédaire*, 42–51, including several diagrammatic transcriptions of Duchamp’s matches.
 11. The source of the following five statements by Duchamp is Schwarz, *Complete Works*, 68–70.
 12. *Ibid.*, 70; emphasis mine.
 13. Pernety, 169–70: “Jeu d’Enfants.” As one should expect, the alchemical motif of the “Children’s Play” was often illustrated, see Lennep, *Alchimie: Contribution*, especially 115, 267, 303–05, 338, 358.
 14. MD, quoted in Tomkins, *Bride*, 17–19.

15. Roché, 53–54.
16. Jollivet-Castelot, *Comment on devient alchimiste*, 119–27.
17. For the art-historical apotheosis of MD, ca. 1960–1995, see Jones, especially chapters 2, 3: “Duchamp as Generative Patriarch of American Postmodernists”; “The Living Author-Function: Duchamp’s Authority.”
18. On the posthumous mythmaking by art’s critical establishment, see especially Daniels, 158ff. (“Der späte Ruhm”).
19. For this argument, admittedly controversial (but I can certainly believe it), see Jones, 70ff. (“Duchamp’s Activity: Agent and Self-Promotor, 1915 to the 1940s”).
20. Clair, *Catalogue*, 116–17, no. MD-137: *Rotative Demi-Sphère (Optique de Précision)*.
21. Lebel, 51.
22. See Clair, *Catalogue*, 98ff., nos. MD-125: *Rotative Plaque Verre (Optique de Précision)*, 1920 (making it the first machine in the series); MD-126 (drawing): *Témoins Oculistes*, 1920; MD-135: *Disques avec spirales*, 1923; MD-139: *Disques avec inscriptions de calembours*, 1926.
23. *Ibid.*, 121, no. MD-144: *Rotoreliefs (Disques optiques)*, 1935.
24. *Ibid.*, 118–19, no. MD-140: *Anémic Cinéma*, 1925–1926.
25. Lebel, 52.
26. Man Ray, 234.
27. Lebel, 46. For the operations of other modernist pseudoscientists, see Gardner.
28. Man Ray, 234–35.
29. Clair, *Catalogue*, 48, no. MD-61: *Moulin à café*, 1911: “Apparait ici un thème essentiel, celui du mouvement circulaire, du cycle.”
30. Janis and Janis, 53.
31. See note 22 above: MD-125.
32. Man Ray, 69.
33. Cabanne, *Dialogues*, 63–64; *Entretiens*, 109–10.
34. Cabanne, *Dialogues*, 72–73; *Entretiens*, 126–27.
35. Schwarz, *Complete Works*, 442.
36. Cirlot, 352. For a brief introduction to the *Dau al Set* (Seven-Spot Dice) school of painters, see Moffitt, *Arts In Spain*, 220ff.
37. Huson, 201, 204–05.
38. Schwarz, *Complete Works*, 55.
39. Cirlot, 351.
40. Clair, *Catalogue*, 98, no. MD-124: *Fresh Widow*, 1920.
41. MD, quoted in d’Harnoncourt and K. McShine, 291.
42. Clair, *Catalogue*, 105, no. MD-132: *Le Bagarre d’Austerlitz*, 1921: “Variation sur le thème de *Fresh Widow* qui, cette fois, substitue la transparence à l’opacité.”
43. MD, quoted in d’Harnoncourt and McShine, 295; the interview only appeared in print in 1973.
44. Pernety, 377: “Vitrum Philosophorum.”
45. Clair, *Catalogue*, 119, no. MD-141: *Porte, 11, rue Larrey*, 1927.
46. Schwarz, *Complete Works*, 496.
47. Man Ray, 236.
48. Schwarz, *Complete Works*, 497.

49. For this object, no longer extant, see Schwarz, *Complete Works*, 504–05. For the specifically Surrealist theme of *Gradiva*, standing for an amorous *coniunctio oppositorum*, and as it had been specifically adapted from a literary analysis of 1907 by Sigmund Freud (dealing with an obscure German novel published in 1903), see Chadwick, 77–86.

50. Clair, *Catalogue*, 137–40, no. MD-169: *Étant donnés: 1ère la chute d'eau, 2ème, le gaz d'éclairage*, 1946–1966. I will have much more to say about this climactic work later in this chapter.

51. Pernety, 289: “Porte”; see also the related terms “Clef,” 83; “Fermer,” 132; “Prison,” 294–95, and others.

52. Pernety, 173–74: “Ingrès,” “Ingression.”

53. Clair, *Catalogue*, 128–29, nos. MD-154–157 (MD-157 is a copy of MD-156).

54. Schwarz, *Complete Works*, 525.

55. For this idea, see H. Wohl, “Duchamp’s Etchings of the *Large Glass* and *The Lovers*,” in Kuenzli and Naumann, 168–83 (especially p. 180).

56. “L’intérieur et l’extérieur peuvent recevoir une semblable identification”: Sanouillet, *Écrits*, 45; Clair, *Abécédaire*, 58.

57. Clair, *Catalogue*, 137–40, no. MD-169: *Étant donnés: 1° la chute d'eau, 2°, le gaz d'éclairage*, 1946–1966.

58. Clair, *Catalogue*, 125, no. MD-150: *Equisse pour “Étant donnés,”* 1944. This rough sketch only traces the silhouette of the supine nude girl encountered in the second stage of the tableau. For the new argument, which I accept, that the figure represents María Martins, with whom Duchamp has a passionate affair between around 1943 and 1951, and adding that it was she who actually inspired Duchamp to create his last masterpiece, see Tomkins, *Duchamp*, especially 353–67.

59. D’Harnoncourt and Hopps, 6–58 (especially p. 7).

60. The essential technical study, including floor plans and elevations, of the construction of this tableau is Jean-François Lyotard, “*Étant donnés: Inventaire du dernier nu*,” in Clair, *Abécédaire*, 86–109. All of the artist’s precise diagrams and handwritten instructions are now published in facsimile: Duchamp, MD; *Manual of Instructions*.

61. For instance, note the embarrassed reactions of Rosalind Krauss, in Duve, *Unfinished MD*, 474–75.

62. Copley, in Tomkins, *Bride*, 61.

63. D’Harnoncourt and Hopps, 8.

64. Schwarz, *Complete Works*, 558, 561.

65. This motif, properly called a “Bec Auer lamp,” is said to appear as early as 1903 or 1904 in a boyhood charcoal sketch: Clair, *Catalogue*, 17, no. MD-8: *La Suspension (Bec Auer)*. Whereas there is some question in my mind whether the lamp in this sketch by a seventeen-year-old *lycée* student should be so labelled, the name *Le Bec Auer* seems properly affixed to an engraving of early 1968, showing the girl of *Étant donnés . . .*, with her upraised lamp and cradling the upper part of a man’s torso in her lap; see Clair, *Catalogue*, 175, no. MD-175: *Le Bec Auer*. It may also be suggested, on the basis of the text for Michael Maier’s Emblem 27 (as quoted below; fig. 28), that the man in Duchamp’s print was meant to represent “Adonis” and the woman “Venus.”

66. Masheck, 22.

67. D'Harnoncourt and Hopps, 13–14.

68. J.-F. Lyotard, “*Étant donné . . .*,” 92. “This lavish documentation” is now made easily available in facsimile to any interested party: see Duchamp, *MD: Manual of Instructions*.

69. Adcock, 9; also remarking that “the Notes are more than an iconographical explanation of the workings of the *Large Glass*—they are both integral to it and independent from it.”

70. Sanouillet, *Écrits*, 43–44. The bracketed interpretations are Sanouillet’s.

71. L. Revel, 2. One wonders whether this “L. Revel” (1911; see next note) is any relation to the P. C. Revel who published *Le Hasard . . .* (1905).

72. Noircarme, 107–10, Chapitre XII, “Triangle arithmétique contenant tous les éléments constitutifs d’un solide de n dimensions.” As Noircarme cheerfully admits in a footnote, “Ce tableau, avec ces explications, a été emprunté au journal *Le Théosophe*, où il a paru, le 16 mars 1911, dans un article intitulé ‘La Quatrième dimension,’ de M. Revel, père.” (A propos, le Revel “fils” était Gaston, l’auteur d’un livret sur *L’occultisme, son origine, sa valeur*, publié par le même éditeur, Éditions Théosophiques, et qui coûtait—en 1911—un franc. En fin, trois auteurs nommés “Revel,” tous occultistes!)

73. Since I think this passage (Noircarme, 90–91) did have a specific effect upon the genesis of Duchamp’s endlessly discussed *The Nude Descending a Staircase*, it should be quoted in the original: “Nous voyons ainsi la marche descendante d’une grande Force créatrice (première vague de vie, troisième Logos, Saint-Esprit), partant de l’Absolu, descendant de monde en monde et, dans chaque monde, de degré en degré, jusqu’à l’état physique le plus dense, organisant la matière et poursuivant son action pendant toute la durée de l’Univers.”

74. Noircarme, 83–92, Chapitre X, “Mesure de la 4^e dimension.” For an American text paraphrasing Noircarme, see Bragdon, *Higher Space*, Commentary to Plate 15. I think it is obvious that Bragdon, who Linda Henderson (in her *Fourth Dimension*) directly relates to Duchamp’s fourth-dimensional exercises, must have read French publications, here meaning Noircarme, as just quoted. In the context of Noircarme’s mention of how “the entire universe shall return to the bosom of Brahma,” it is certainly worth reminding the reader that Duchamp had long before, in spring 1911, illustrated the Brahma so beloved of the Theosophists; see Clair, *Catalogue*, 38, no. MD-44: *Courant d’air sur le pommier du Japon*, with “la curieuse figure agenouillée comme en lotus, une sorte de Bouddha.” If you need further textual support for the currency of Brahmic ideas among the esoteric writers of the Symbolist era, you need only turn to the relevant Buddhistic passages in Schuré’s *Les Grand Initiés* (1889), which I would now propose as the specific textual inspiration for Duchamp’s previously unexplained Buddhist painting of 1911.

75. Although he did not cite Noircarme’s obscure publication, this verbal connection was usefully pointed out by Duchamp’s bilingual stepson; see Matisse, *MD: Notes*, xiv–xv.

76. Jouffret, 62–63 (emphasis mine): “Il ne faudrait pas considérer la définition du triède de second espèce comme faite à plaisir. Elle correspond à celle du cône de seconde espèce qu’on verra plus loin, et elles ne sont l’une et l’autre que le commencement d’un *épanouissement* que se continue dans les champs de degré supérieur

en se compliquant de plus en plus.” As far as I know, the first scholar to identify this as being the most likely, ultimate published source for Duchamp’s fourth-dimensional employment of the term *épanouissement* was Adcock (see especially p. 153). Unfortunately, Adcock never cites Noircarme’s text, which does provide far more germane arguments for the way Duchamp contextually uses the term *épanouissement*.

77. Valin, 401.

78. Pernety, 108–11: “Eau.”

79. *Ibid.*, 147: “Gaz.”

80. For these terms, see *ibid.*, 37 (“Air”); 77 (“Chaleur”); 132–38 (“Feu”); 139–40 (“Flamme”); 184 (“Lampe”); 196 (“Lumière”); 365 (“Vapeur”).

81. *Ibid.*, 136: “Feu de Lampe.”

82. Maier, *Atalanta Fugiens*, 116–19, which also includes the Latin texts translated below.

83. I need cite but one example, Rimbaud’s “Le Dormeur du val” (1870), which begins with a landscape description that seemingly belongs to Duchamp’s *Étant donnés . . .*, and then proceeds to describe a sleeping or dead soldier from the Franco-Prussian War. It begins: “C’est un trou de verdure où chante une rivière . . .” and ends: “Il dort dans le soleil, la main sur sa poitrine / Tranquille. Il a deux trous rouges au côté droit” (*Oeuvres complètes*, 69, “Le Dormeur du val”; for an English version, see Rimbaud, *Complete Works*, 56–57).

84. F. S. Taylor, 114.

85. Hermes, quoted in Scott, I, 199, 233–34.

86. Maier, *Atalanta Fugiens*, 208–11.

87. Among these kinds of publications, all postdating the abandonment of the *Large Glass* and all preceding the eventual unveiling of *Étant donnés . . .*, I am only listing a few of the more significant publications in French): Alleau; Berthelot, *Introduction*; Canseliet, *Deux logis alchimiques* and *Alchimie: Études*; d’Yge, *Anthologie* and *Nouvelles assemblées*; Eliade, *Forgerons*; Evola; Festugière, *La Révélation* and *Hermétisme*; Fulcanelli, *Le mystère* and *Les demeures philosophales*; Ganzenmuller; Grillot de Givry; Hutin; Marcard; Wirth; and others. So noted, we have the bibliography for a much needed Ph. D. dissertation: “L’Alchimie surréaliste: A Bibliography of Occult Sources for, and the Manner of their Adaptations by, the French Surrealists.”

88. See Andreae, *Les noces chymiques* (1928); there was earlier (1913) a scholarly German edition: Andreae, *Chymischen Hochzeit* (note also the 1616 *editio princeps* kept in the Bibliothèque Ste. Geneviève).

89. This famous alchemical allegory has been recently retranslated into English: Andreae, *Chemical Wedding*. For a useful discussion of the cultural background surrounding the *Chemical Wedding*, see Yates, *Rosicrucian Enlightenment* (especially her chapter 5).

90. Godwin, *Chemical Wedding*, 92–94.

91. For a new edition, with commentary, see McLean, *Amphitheatre Engravings*.

92. This is a metaphorical scenario—*lux ex tenebris*—some of us may recall as having been frequently broadcast by mendacious government spokesmen during the darker days of the Vietnam War.

93. In the *Musaeum Hermeticum* (1677; fasc. ed., 1966), the “Parabola” appears as the second part of Madathanus’ *Aureus Tractatus de Philosophorum Lapide . . .*,

41–52: “Sequitur *Parabola* in qua totius negotii mysterium declaratur.” The English translations following (with my occasional interpolations, or corrections for more heated textual eroticism, drawn from the original *Musaeum* text in Latin) are largely derived from Godwin, *Chemical Wedding*, 159–68; for another very similar translation, see P. M. Allen, 325–35.

94. Waite, *Hermetic Museum* (Arensberg had also cited another work by Waite); for the other version of the “Parabola,” published in English in 1917 and also probably owned by Arensberg, see Silberer, *Hidden Symbolism*, 1–14.

95. *Musaeum Hermeticum*, 45; Godwin, *Chemical Wedding*, 162. Cf. Pernety, 166ff., Jardin: “. . . La fontaine, que l’on trouve à l’entrée du Jardin, est le Mecure des Sages,” etc.; the obvious counterpart is MD-110, Duchamp’s *Fontaine*.

96. *Musaeum Hermeticum*, 47–50; Godwin, *Chemical Wedding*, 164–66.

97. Arensberg, *Shakespearean Mystery*, 151–53; in this instance, Arensberg vaguely cites his textual source as having been derived from “Part II of the *Geheime Figuren*, entitled: *A Treatise on the Philosopher’s Stone, By a still living Philosopher, but who does not desire to be known*” [with no place, date, or page numbers given]. For what I think most closely approximates Arensberg’s actual textual source, yet another version of the “Parabola,” as published in English in 1917, see Silberer, 1–14; with the “*Geheime Figuren*” cited on p. 15, also including (in German) the rest of the subtitle—just as cited by Arensberg in English; for another version, also in English and likely once owned by Arensberg, see Waite (ed.), *The Hermetic Museum* (1893), 41–50 (“Here follows a Parable . . .”).

98. Matisse, *Notes*, Note 9 (with facsimile).

99. *Musaeum Hermeticum*, 648–99. As attributed to “Philalèthe,” this treatise—cited as the “*Entrée ouverte au palais*”—was mentioned several times by Albert Poisson (*Théories*, 68, 88, 92, 99, 117, 145). A modern translation appeared in 1970; see Philolèthe.

100. *Musaeum Hermeticum*, 689–90.

101. *Ibid.*, 692–93.

102. *Ibid.*, 694.

103. *Ibid.*, 652.

104. *Ibid.*, 656–57.

105. Pernety, 332: “Séparation,” “Séparer l’âme du corps.”

106. Again, I am referring to the texts published in Matisse, *Notes* (unpaginated), Note 71 (first part): “Clarté càd [c’est à dire] choix de mots dont le sens ne prête pas à équivoque (ne pas confondre cette clarté avec l’étymogisme du mot.) = Éviter la recherche étymolgique et se rapprocher du sens actual des mots.”

107. Pernety, 83: “Clarté. En termes de Science Hermétique, signifie la blancheur qui succède à la noirceur de la matière en putréfaction.”

108. *Ibid.*, 67, 77–78, 87, 89, 92, 96, 98, 102, 108, 111, 114, 115, 120, 121, 122, 124, 128, 139, 140, 146, 149, 151, 154, 155, 162, 174, 176, 178, 184, 188, 189, 195, 196, 197–98, 202, 215, 222, 224, 226, 233, 247, 248, 256, 262, 279, 280, 282, 286, 289–90, 306, 308, 316, 319, 328, 329, 331, 343, 345, 351, 355, 361, 365, 386, 390.

109. *Ibid.*, 205–15: “Matière.”

110. *Ibid.*, 39–41.

111. *Ibid.*, 13–27: “Préface.”

112. For what constitutes proper legal evidence, see Heller.

EPILOGUE

1. Daniels, 258: “Waren rufen so wenig Arbeiten so viele Kommentare hervor? Warum gerade Duchamp der Gegenstand so zahlreicher und so widersprüchlicher Theorien geworden ist?”

2. For Duchamp’s nearly unprecedented apotheosis to posthumous celebrity status, see Daniels, 158–65 (“Der späte Ruhm”). Another significant cultural marker has recently appeared; in October 1998, the French government issued a postage stamp (selling at 6.70 francs) picturing Duchamp’s *Neuf Moulins-mâlics* (MD-100): *la célébrité, dans la France profonde (même)!*

3. For the modern visual “celebrity” as specifically representing “the human pseudo-event,” see Boorstin, *The Image*, 44–76, 154–61 (“Star”). For a novel approach to post-modern celebrities, see Moffitt, *Picturing Extraterrestrials*.

4. For the unspeakable mental signatures of class in America, its lemminglike consciousness, predestined tribal markers, and cultural prejudices—caste, in short—see Fussell, *Class* (p. 198: “We’re pretty well stuck for life in the class we’re raised in”), and Lynes, *Taste-Makers*. For the British template for such mechanized social affectations, see Potter, *One-Upmanship*.

5. As Paul Fussell notes (*Class*, 200), “Some of the most assiduous class climbers are university professors [especially those professing art history]. They are [often] recruited from the lower-middle class, a milieu not remarkable for grace of mind, flexibility or breath of culture, or scope of imagination.” Nonetheless, besides being haut bourgeois (due to birth, education, and, eventually, inherited wealth), by Fussell’s detailed definitions (p. 212ff.), I additionally belong to “Category X,” and if you too belong to the same metacaste, your proper riposte (like mine) is: “So what?”

6. For other eminent True Believers, see Brandon; Shepard; Webb.

7. On these stylish issues and their cultural manifestations, see Ewen.

8. For evolutionary history of these cultural-psychological images, see Boorstin, *Image*.

9. For the cultural contexts of performance art, see Moffitt, *Occultism in Avant-Garde Art*, 25ff.

10. For a veristic look at the modern detective’s gritty operations, see Simon, *Homicide*.

11. MD, as quoted in *Ephemerides*, 16 June 1966.

12. For a number of modern and contemporary art forgeries, see Moffitt, *Art Forgery; El Caso de la Dama de Elche*.

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bibliography

1) Primary sources (historical documents) are preceded by an asterisk (*); 2) Duchamp's own writings or interviews are preceded by two asterisks (**); 3) esoteric publications to be found in the Bibliothèque Ste.-Genéviève in Paris before 1915, when Duchamp worked there (with their titles and dates—but not their publishers—verified by me between 1981 and 1995), are preceded by number sign in parenthesis (#). For a complete listing of Duchampiana published before October 1968, see C. Rameil, "Bibliography," in Hultén (for a different kind of search engine, try the Bibliothèque Nationale web-page—www.bnf.fr/bnfgb.html—mounted around 1998 and promising access to every library in France, but which—*hélas*—famously still does not work).

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index

- (*Avis aux lecteurs*: For the on-going task of identifying the specific sources—hence exact meanings—of Duchamp’s distinctive verbal motifs, the most important entries here are the two corresponding to “TERMINOLOGY.” One entry lists instances of Duchamp’s distinctive phraseology, and the other cites their exact functional correspondents, and such as these repeatedly occur in published alchemical and/or esoteric texts. *Et voilà*: revealed here is the presence of scores of, equally, terminological alignments and functional equivalencies.)
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