

MERIA

GUNS AND BUTTER IN THE EGYPTIAN ARMY

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This article analyzes the Egyptian army, its mission, development and modernization during the past several decades, and its relationship to the political and general civilian spheres. The article contends that Egypt's armed forces have elements of both modern and post-modern armies, and answers the riddle of how Egypt's army has neither sacrificed quantity or quality of its weapons systems, nor slashed military salaries severely, despite a seemingly shrinking budget.

The Egyptian army seems to possess the characteristics of a *modern* army (in the 1950s' sense, when nationalism and patriotism unquestionably prevailed in military establishments) in a *post-modern age*. While the post-modern army is often seen as being professionally small, the Egyptian army remains rather large. While the post-modern army is typified by increasing civilian-military integration, the Egyptian army has constructed at least 17 military cities to isolate the military from the civilian population.(1)

Bernard Boene claims that Western militaries in the post-modern age must cope with its cadre having professional wives who want to integrate into civilian society.(2) But the sections devoted to women and family in *Al-Nasr*, the official army journal, depict wives in the Egyptian military, however worldly, who still fill the roles of mothers. In short, the ethos and discourse of the Egyptian armed forces resembles the style of the early and mid-twentieth century. The army continues to be the repository of military values and the defender of the state and nation, forever on guard to protect its independence and integrity.

This first glance, though, does not give a complete picture of the situation. Upon closer examination, the armed forces are shown to be under criticism for being too expensive.(3) In *al-Ahram*, Ahmad Ibrahim Mahmud writes: "Since the mid-1970s Egypt has focused on giving complete first priority to domestic development to confront its growing economic problems."(4) In a more subtle reference to this fact, Abd al-Mun'im

Sa'id, director of Egypt's prestigious *al-Ahram* Center for Political and Strategic Studies praises the benefits of U.S. civilian aid compared to its military aid, though more money is earmarked for the latter category.(5) Newspapers devote many articles to praising the army's "civilian" and development-oriented services, as if to defend its contribution to the nation on this more important front.(6)

This tension between supporting a large military while coming to grips with the acute, almost insurmountable, social problems facing Egypt, is a central factor in analyzing the mission and political status of the Egyptian armed forces. There is a clear contradiction on this issue. On the one hand, both the Egyptian military and outside experts agree that the Egyptian armed forces have become more professional and modernized radically in terms of force, structure, and equipment, while maintaining a force level of about 420,000 men. On the other hand, though, the armed forces' estimated real budget fell by nearly half in the last two decades of the twentieth century.(7) Meanwhile, U.S. military aid, a hefty \$1.3 billion dollars annually which is not included in the military budget, fell in real terms by 50 percent.(8)

How can this combination of factors be possible? Sophisticated equipment--including items needed for new command, control, communication, and intelligence systems--means increased operating costs as well as requiring more and better quality commissioned and non-commissioned

officers.(9) U.S. military aid does not cover these expenses.(10) The army must, in order to balance the accounts, either sacrifice quantity for quality or slash military salaries severely. The February 1986 rebellion in the Central Security Forces to protest low wages suggests that salary reduction is not politically feasible.(11) Such a solution is all the more untenable in the face of rising Islamic fundamentalism. How can we solve this apparent riddle, while analyzing the Egyptian military's mission, force structure, capabilities, and relationship to civil society?

THE EGYPTIAN ARMED FORCES MISSION

The Egyptian military's mission, as the political leaders and senior officers define it, is to defend Egypt and achieve Egyptian national interests.

The stress on defense rather than offense, and peace rather than war, resonates in almost every public address issued by Egypt's senior politicians and ministers including the minister of defense. In a November 1995 speech, President Husni Mubarak stated that "in general, the level of our armed forces is a source of pride for us all, and [they] are capable of deterring any danger threatening our national security." When asked about criticism from other states that Egypt is expanding its military power, he replied, "The call to weaken the Egyptian army is misleading. We have to maintain a military power capable of deterring at the same time we work for peace."(12)

In October 1996, Mubarak linked Egyptian deterrence with the need to preserve the Arab-Israeli peace process, saying that a strong Egyptian army helped preserve regional stability and the chance of reaching peace. According to the official summary of the statement, "History has taught us that the cause behind many wars is the weakness of one side and the increase and growth of military power of the other side. This prompts the second side to attack, as has happened and is happening around us now. Therefore, peace and stability must exist under the umbrella of a military force that protects and preserves them."(13)

Similar statements were made consistently by Minister of Defense and War Production Field Marshal Muhammad Hussein Tantawi: "Peace does not mean relaxation. The endless development of military systems and the arms race prove that survival is only assured by the strongest and that military strength will always be necessary. Military strength has grown to be a prerequisite of peace. Any threat to any Arab or African country is a threat to Egypt's national security."(14)

This basic position was voiced slightly differently by Major General Muhammad Seif Eddin Galal, commander of the Third Field Army, upon completion of the Jabal Pharaon exercises in April 1998: "The exercise affirms to the world the effective role of the Egyptian armed forces, to lighten the path of Egyptian diplomacy to impose the peace of the strong which began on October 6 [the beginning of the 1973 war with Israel]."(15) Even when assessing the capabilities of the Egyptian air force, its commander makes clear its basic defensive mission when in an interview in 1999 he concluded: "We cannot be taken lightly; We cannot be beaten."(16)

However much these statements stress deterrence, they equally emphasize that this can only be achieved through efforts to enhance offensive capabilities commensurate with the potential foe's strength. Nor can war with Israel be entirely ruled out. In his article stressing Egypt's commitment to social and economic development, Mahmud points out that:

the Egyptian military school of thought, in its strategic assessment, believes that there are a cluster of factors that are likely...to push either in the direction of war or in the direction of peace....The probabilities of armed conflict breaking out between Egypt and Israel or not breaking out depends on the following main factors: The fuzziness or lack of information regarding Israeli intentions...Israeli military capabilities and their development, the size and type of the Israeli armed forces, [and] the military alliances and axis which

Israel maintains with other countries...Therefore the transparency of [Israeli] intentions and plans...for military development and the development of military capabilities [and] moving forward in the Arab-Israeli settlement will help a great deal in avoiding the outbreak of armed conflict in the area and the opposite is true.(17)

STRUCTURE, CAPABILITIES AND BATTLE-READINESS

President Anwar Sadat's prescient decision in the early 1970s to abandon the Soviet patron for the United States laid the foundation for the Egyptian army's radical transformation "from [an] armed forces consisting of an army that relied mainly on infantry, a weak air force, and an essentially defensive navy, to an Egyptian armed forces that now reflect an offensive orientation..."(18) The United States has contributed nearly \$28 billion in military aid since it first became available in 1975 in the form of weapon sales, training, and mutual exercises with U.S. forces. In 1998, Sa'id summarized this relationship: "The modernization of the Egyptian armed forces in the past two decades has in large measure relied on American military aid."(19)

The radical transformation of the armed forces is reflected in changes in the overall structure of its ground forces. Between 1973 and 1983, Egyptian ground forces consisted of ten divisions, five of them armored or mechanized. By the late 1990s, the Egyptian army had 12 divisions, of which all but one is armored or mechanized.(20) Perhaps even more significant is the increasingly Westernized and modern equipment these divisions operate. An estimated 70 percent of Egypt's active tanks are of Western design, including 400 of 512 planned M-1 A-1 Abrams battle tanks (with a "hit/kill ratio" that equals or surpasses any main battle tank armament in the world), equivalent to Israel's Merkava-3. Egypt is also converting M-60 A1 tanks to A3s, has been upgrading Russian T-62s, produces and operates 24 SPH 122mm self-propelled guns, and is in the process of absorbing 600 new

YPR-765 armored personnel carriers (APCs) from Holland.

To counter enemy armor, the Egyptians have at their disposal vast amounts of anti-tank missiles that proved their effectiveness in the 1991 Gulf War. During 1997 alone, the Egyptian Army received 540 TOW-2 launchers, French Hot-3 missiles, and 1,000 Hellfire-2 laser-guided anti-tank missiles.(21) Both the quality and mobility of the tanks and anti-tank missiles and launchers enhance the offensive capabilities of Egyptian ground forces substantially. The contribution of the United States to this transformation has been overwhelming.

The growing influence of U.S.-made equipment is evidenced to an even greater extent by Egypt's air force which, since the early 1980s, has integrated into its force structure 160 F-16 jet fighters, roughly two-thirds' the number of these fighters possessed by Israel. Eight of 21 fighter squadrons are equipped with these planes capable of carrying GBU-15 glide bombs and smart weapons such the AFM-84 Harpoon. Within the next few years, 220 of its 500 fighters will be composed of F-16s, the same planes that are the mainstay of Israeli Air-Force offensive capabilities.(22)

To enhance combined ground-air operations, the Egyptians have purchased and integrated 36 ultra-advanced AH-64A Apache attack helicopters all of which will be upgraded to the improved D model, equipped with a Long Bow radar that can locate both ground and air targets. Older helicopters such as the SA-342 Gazelle, and the Naval Westland Sea King Mk-47 and SH-2G helicopters make up the rest of the combat squadron.(23) As Sa'id notes, this transformation could have never have taken place without massive U.S. aid and training.(24)

Despite its emphasis on offensive air power, Egypt remains committed to enhancing its air-defense system, where it has been traditionally strong. Tradition is reflected in the fact that Air Defense Command is an autonomous branch, separate from the air force, reporting directly to the minister of defense and war production rather than to the commander of the air force or even

to the chief-of-staff.(25) Surface-to-Air Missiles (SAMs), including the 1998 sale of 1000 Stinger missiles (the world's most advanced personal anti-aircraft weapons) and advanced warning systems (such as five Grumman Hawkeye planes) have been increasingly of American make.(26) According to military expert Shmuel Gordon, "The Egyptian air arm, the pivot of an Arab war coalition, is completing a long process of transformation to Western systems and technologies. It has procured various modern systems, such as aircraft, attack helicopters, air-to-air and air-to-ground guided munitions, C4I systems, early warning systems, and electronic warfare systems."(27)

Even the Egyptian navy, long the Achilles heel in Egypt's military, has seen substantial change. Once again, this development can be attributed mainly to United States aid. In the past 20 years, the navy has undergone significant restructuring. But the new advanced equipment and technology from several Western nations also poses a problem. While Egypt's naval forces are significantly more modernized than they were in the 1970s, the navy's major weakness now lies in the poor quality of its personnel. This is primarily due to the difficulty in effectively training personnel to operate a large number of different ships from different countries that operate on different technology levels.(28)

In the 1980s, Egypt's navy began to replace Soviet ships with more modernized Western equipment, including British-made Ramadan-class missile boats and Spanish-made Descubierta-class missile frigates, and attempted to upgrade older vessels with Western radar and electronic warfare systems. The purchase of four new Chinese-made Romeo-class submarines and American supplied state-of-the-art weapons and detection systems, including underwater-to-surface Harpoon missiles was the most successful attempt to alleviate this problem.(29)

In the 1990s, in response to Israeli naval upgrades, the Egyptian navy went through a decade-long modernization process to replace outdated Soviet vessels with modernized Western ships and technology,

relying on the United States as its major source of equipment and training. The United States was ready to help partly because it wants to maintain a strong, friendly naval force between the Persian Gulf and the Mediterranean Sea to secure oil exports and trade routes. Egypt completed these transactions in 1996 with the acquisition of four modern Oliver Hazard Perry-class frigates and ten Super Sea Sprite helicopters. Egypt plans to overhaul its submarine fleet with vessels from the United States, Netherlands, or Germany. Due to this long-term restructuring, Egypt's navy has grown from an inconsequential force to a powerful military presence.(30)

Because U.S. military aid has become so important to the military balance in the Middle East, it is important to take a look at how the aid has comparatively benefited Egypt and its most serious adversary, Israel. In general, the United States was the only country that refused to export its most advanced military technologies. This changed with President Clinton's decision to sell the AIM-120 AMRAAM missile to the UAE. The missile, which increases pilot survivability by letting the pilot break away immediately after launch and engage other targets, is the most advanced air-to-air missile in the U.S. arsenal. Egypt's requests to purchase the AMRAAM, however, have continuously been rejected by the Pentagon due to strong Israeli objections. Instead it has received less advanced but still formidable weapons such as the flare-resistance air-to-air missiles (AIM-9-M), electromagnetic AAM (AIM-7-M), night-vision navigation systems (Path Finder), laser-designator pods (Sharp Shooter), and vehicle-mounted Stinger Avengers.(31)

While both Egypt and Israel have received a sizable quantity of advanced combat aircraft from the United States, U.S. defense cooperation with Israel has proven to be a greater force multiplier. The United States supported the Arrow anti-ballistic missile program through funding about 70 percent of development costs and providing \$156 million for deployment of a third battery of Arrow missiles. In addition, a quick channel for sending emergency assistance

(Air Mark) was set up and Israel was directly connected to an early-warning system to detect SSM launches with a hotline between the U.S. secretary of defense and the Israeli defense minister.(32)

Due to the acquisition of the most advanced American aircraft and tanks, such as the Apache-64A attack helicopters, the F-16 Fighting Falcon combat planes, and the M-1 A-1 Abrams battle tanks, it can be argued that Egypt's weaponry is on par, or nearly on par with Israel's military. Nevertheless, Israel's great advantage over Egypt lies in its ability to develop and manufacture weapons and munitions indigenously using the most advanced technologies, although financial constraints prevent it from producing large quantities of these systems.(33) Egyptian analysts are also convinced that the United States maintains a technology gap in Israel's favor.(34)

Westernization of the Egyptian armed forces is hardly limited to weapons or force structure but includes training as well. Joint exercises with the United States and its allies are important components of such training. The large-scale "Bright Star" exercises, initiated in 1981, take place every two years. The October 1999 maneuvers involved 66,000 military personnel from 11 countries, including Egypt, the United State, France, Britain, Italy, Greece and Kuwait. The commanding officer was a U.S. Army general.(35)

Assuring high-quality manpower is an essential characteristic of modernizing armies. Egypt has gone to great lengths to improve the quality of its recruits. Radical transformation in the quality of officers and soldiers took place even before the October 1973 war, when an estimated 60 percent of those who fought had been high school or university students.(36) Ostensibly, Egypt should not find it difficult to maintain this level, and perhaps even improve these figures. Over 250,000 high school students graduate every year, and roughly half graduate from the universities, which also serve as a pool for recruitment, especially officers. Meanwhile, the armed forces recruit or conscript 80,000 youth and young men each year.(37) It was not surprising that *Al-Ahram* reported in 1994

that 70 percent of army personnel had attained at least a secondary education.(38)

Theoretically, the armed forces should be able to choose selectively from this pool. However, there is some evidence that both the readiness to join and the quality of those joining does not fully meet expectations. For example, in 1996, the Egyptian armed forces sent two delegations to promote conscription amongst Egypt's sizeable expatriate community--an expensive undertaking which can be justified only if the local educational system was not yielding the quality of soldiers the armed forces thought necessary for an increasingly sophisticated military.(39)

An article on the military colleges in *al-Nasr* also suggests that the Egyptian military does not always recruit at the level it would like. The 1996 article urged high school achievers to consider a military career by arguing that the military colleges in which they were to be educated and trained, were better than civilian counterparts. It provided strong evidence of competition from the engineering and computer programs in Egypt's top universities.(40) From the photos and the cadets interviewed, though, it is clear they are not succeeding in recruiting Egypt's urban and Westernized elite. While the armed forces is an avenue for upward mobility in Egypt, the type of people who use this route are usually less well-educated and more rural in origin. An analysis on Egyptian education in the English-language *Al-Ahram Weekly* reported that the average expenditure on rural students in the state school system was only 28.5 percent of that expended on urban students.(41)

WHO IS THE ENEMY?

Almost all of Egypt's capabilities, equipment, and deployment of forces are concentrated on one front to engage one force only: the Israeli Defense Forces. The Egyptians have made this explicit since the Badr-96 exercises in 1996, in which they specifically named Israel as the training target.(42) In the early 1990s, the target was left unnamed. According to an official description, the Badr-96 exercises in Safajeh took place over the course of ten days, beginning with a mechanized infantry

battalion landing on a beach supported by navy, air force, and air defense operations. As the battalion penetrated the hinterland, it was augmented by border guards, shock troops, paratroopers and specialized units from the engineering, chemical, and electronic warfare corps.(43) According to Amos Gilboa, "The Badr-96 exercise held in summer of 1996 reflects both the state of Egyptian battle-readiness and the target for such extensive operations. The exercise was supposed to be a response to an [Israeli] attack on the Egyptian front in which the Egyptian army first engages in a defensive battle and then switches to a counterattack, and finally takes over the whole of the Sinai including limited penetration over the international border."(44)

Another large-scale operation, the Jabal Pharon exercises, conducted on April 22, 1998, was also focused on improving assault capabilities against Israeli forces. It was carried out by the Third Field Army positioned along the central and southern part of the Suez canal. Air, navy, air defense, paratroopers and specialized forces participated in the exercises. The project focused on fighting in desert, mountainous, and coastal areas, a combination of topographic features found mainly in the Sinai.(45)

DEVELOPING NON-CONVENTIONAL WEAPONS

Egypt's linkage between the arms build-up and the Israeli front is even more pronounced in its efforts at enhancing its non-conventional capabilities. In the conventional sphere, Egypt can at least partially justify its enhancement of rapid deployment capabilities on the need to project power in the Gulf in conjunction with other forces. Abdel Munim Said, has even placed this goal within a broader Egyptian foreign policy transition that stresses geo-economic rather than geo-strategic concerns. He argued that since the 1991 Gulf war Egypt must project its power in the region to assure Egyptian economic interests related to oil, employment and remittances.(46) An attempt to create a joint Egyptian-Syrian security umbrella for the

Arab Gulf states along these lines in the 1992 Damascus Protocol failed.

This is not the case for non-conventional weapons. Egyptian sources make almost no mention of non-conventional capabilities and stress that Egypt is mainly focused on achieving at least deterrence, if not conventional parity with Israel. There is however a danger that U.S. aid frees resources for developing non-conventional weapons. Egypt has chemical warfare plants, is cooperating with North Korea in developing ballistic missiles, and has purchased from it Scud-C missiles with a range of 600 km, placing most of Israel in their reach.(47) Egypt along with Syria has consistently refused to sign the Chemical Weapons Convention as long as Israel refuses to sign the Nuclear Proliferation Treaty.(48)

CIVIL-MILITARY RELATIONS: THE MILITARY AND THE FUNDAMENTALISTS

According to Phillipe Droz-Vincent, the Egyptian military--or at least its higher echelons and front-line troops--are a privileged elite for good reason: "In Egypt, among the centers of power possessed by the regime, the police and the army are often the sole recourse."(49) Egypt's president relied on the army in 1981, when Sadat was assassinated, and again in 1986, when the poorly paid and poorly armed Central Security Forces (CSF) mutinied. The CSF itself was established in 1977 in the wake of the January 1977 food riots--the most serious popular rebellion against the Egyptian regime since the army came to power in the 1952 coup. Mubarak has built up the CSF significantly, hoping it would counterbalance the military's power.(50)

During the 1980s and 1990s, Egypt witnessed extreme acts of religiously inspired violence. Over 1,000 people were killed between 1991 and 1996 alone. The most infamous, though hardly the bloodiest, event was the fundamentalist attack on tourists in Luxor on November, 1997 in which 58 people were killed.(51) The army has played only a minor part in the fight against these fundamentalists. For example in the Luxor

incident, its role was limited to the evacuation of 14 wounded to Cairo in army transports from which they were transferred to a military hospital by army helicopters.(52) The fight against terrorism is not therefore perceived as a task that the armed forces must address directly. Nevertheless, senior military officials frequently warn that during waves of increasing violence, the armed forces might become engaged.(53) The Egyptian armed forces' role has thus far mainly concentrated on providing a decisive, deterrent force situated in the background.

The regime's cautiousness is hardly puzzling. Involvement in suppressing growing Islamic fundamentalist violence risks exposing the army to fundamentalist infiltration as well. President Sadat's assassins included a colonel on active service as well as a reserve lieutenant colonel. While Mubarak has built up the CSF significantly, hoping it would counterbalance the military's power, he was forced in the wake of the February 1986 riots to dismiss 20,000 of its members, probably due to Islamist infiltration. The assassination of a high-level undercover agent, Major-General Rauf Khayrat, during the riots could have only been possible through the complicity of high-ranking officers.(54)

The Egyptian military has gone to great pains, chiefly through the establishment of military cities, to isolate military personnel from civilian society in the hope of stemming such infiltration. Journals brought out by the military attempt to delegitimize fundamentalist ideologies and groups that voice them. "The extremists commit Major Sins in order to Avoid Small Ones" reads the title of one article by General Muhammad Shabal, the retired general and Islamic commentator in *Al-Nasr*. In the article, he attempted to demonstrate that the fundamentalists are willing to kill over minor matters such as the separation between men and women in the universities and women's dress.(55) The article claims that the doctrine of the extremists in Algeria and Egypt are identical. Another article condemned on religious grounds the use of religion in inciting communal hatred against the Copts,

affirming that those doing so "are neither Muslims nor Egyptians."(56)

Though the army is kept in the background, the regime has made sure to implicate the army in the struggle against the fundamentalists by trying such prisoners in military courts.(57)

SOLVING THE PUZZLE--THE MILITARY AND THE ECONOMY

How then does Egypt solve the problem of improving the quality of personnel and equipment at a time of declining budgets?

Part of the answer lies with the military's ability to find alternative sources of income. As Picard noted already in the 1980s, the reduction of military budgets in the Arab world led to a search for funding through privileged, often monopolistic, activities in the marketplace. The actors could be military organizations, military-owned companies, or senior and retired military personnel engaged in business with a connection to the armed forces.(58) The military justified this role as both seeking self-sufficiency (*al-iktifa'a al-thati*) and the armed force's need to supplement civil institutions in working to "institutionalize" (*taqnin*) the state.(59) Both motivations were considered in keeping with the widely accepted tendency to expand the meaning of national security to include economic and social welfare. While, in the West, this often reflected the importance of private economic actors within the state at the expense of allocations to the military, in Egypt, the new more economic-oriented concept of national security was manipulated to enhance its privileged role in the state and its economy.

These underpinnings can be examined in the relationship between the military and arms production, over which the state has an exclusive monopoly. In the words of former Minister of State for Military Production Muhammad al-Ghamwari: "The state will not permit any sector to own military industry because of its role in producing military material for the armed forces."(60) The military's monopoly over military production is moreover guaranteed by emergency legislation that effectively prevents any

possibility of monitoring the industry by the legislature and the press. In October 1999, The People's Assembly extended Law no. 49, passed in 1974, for another three years,(61) despite the vociferous objections of opposition parties. In addition, there is no legislative oversight whatsoever in regards to the military budget.

The government facilitated military expansion in the economic sphere well beyond these limits through the Administration of National Service Projects, created in January 1979.(62) By 1994, this organization ran 16 factories employing 75,000 workers, with 40 percent of its production geared to the civilian market in the form of agricultural machines, fodder, cables, medications, pumps, and ovens. Companies owned by the military expanded into areas such as water management and the production of electricity to the chagrin of civil ministries.(63)

As Egypt's cities expanded outward, the military made big profits by selling land formerly used for army bases or developed by using soldiers as cheap labor. According to *Akhbar al-Yawm*, by 1994, the army had made one billion Egyptian pounds from land development deals in the Suez area alone. The military has also been accused of smuggling through the two free-trade zones under its control in Suez and Port Said.(64) The army also is paid by the government for its work to combat illiteracy in the desert periphery, educating the inhabitants of Upper Egypt, organizing medical expeditions to the western desert, providing water to nomads, and producing and distributing medicines.

The military's economic mandate has effectively been extended since the early 1990s. In 1996, the minister of state considered development projects such as the military's manufacturing equipment for water purification, desalination for waste water treatment, and garbage disposal.(65) Three years later the mandate extended to "productive sections particularly in...high-precision industries, which are difficult for other than the military production to manufacture," in addition to the "basic needs of man, agriculture, irrigation, land reclamation and other pursuits." (66)

By far, the most important of the new areas of activity was land reclamation, or more specifically, the military's role in the two biggest land reclamation and urban resettlement projects ever undertaken by the state. Egypt hopes that the implementation of two huge and highly contested 30-year projects, centered around the northern Sinai and the southernmost reaches of the western desert, will let Egypt disperse the country's population over 20 percent of its landmass compared to five percent at present.

The al-Salam canal, which will feed Nile water into the Sinai peninsula, is the most advanced of the two schemes, with 420,000 acres schedule to be reclaimed. Half the reclaimed land will go to settlement and agro-industry and the remaining half to agriculture and flower-growing.(67) The Egyptian government hopes to increase the population in the Sinai to three million inhabitants, an almost ten-fold increase from its present level.

An even more ambitious venture is the New or Southern valley project situated in the southern reaches of the Western Desert. The first stage of the Southern Valley project (scheduled for completion in 2017) involves canal construction, massive irrigation, agricultural infrastructure, the establishment of six large-scale cities and four free-trade zones, at a total estimated cost of 300 billion Egyptian pounds. About 35 percent of investment will involve agriculture, with the remainder allocated to tourism and industry, especially the metallurgical and mineral sectors.(68) Water will be carried in the Toshke canal from Lake Nasser, to reach the Farafra Oasis, 500 km away. The military will be responsible for planning, canal construction, and earth removal.

Critics fault the projects for focusing on agriculture in which Egypt has no significant comparative advantage.(69) Even more alarming is the diversion of water that will soon be necessary to meet Egypt's current demands to desert areas characterized by high evaporation levels.(70) The project also pushes the lower classes to be relocated, though they can rarely afford or succeed in this effort. Critics feel that the Southern valley, especially, is far too distant and

inhospitable to make population dispersion worthwhile. Doubts about this project's feasibility can be documented by the slow pace of progress regarding the more hospitable and accessible Sinai. The Egyptian authorities had hoped to increase the Sinai population in the past 20 years by one million inhabitants, but succeeded in attracting only one-fifth that amount. Moreover, the authorities themselves fear that creating large urban centers in southern Sinai might facilitate fundamentalist activity and thus harm tourism in the area.

Ostensibly, the military's participation in the project is justified on strategic grounds. Israel's successful assaults through vast stretches of wilderness have demonstrated that desert stretches, which has once been considered an obstacle to invasion, no longer act as natural barriers.⁽⁷¹⁾ The collaboration of Sinai beduin with the Israeli administration when Sinai was under Israeli rule suggested that Egypt's security would be enhanced by settling non-beduin Egyptians there. Incidentally, the Sinai scheme also demonstrates Egypt's defensive posture since it would not be inclined to invest such huge amounts for civilian development and resettlement in areas where it intended to launch a military attack.

Whatever the true motives behind the grand national projects may be, there is no doubt that they offer ideal opportunities for the military to obtain more funds and strengthen its position within the state.

Of course, the military's importance as a pillar of the regime also means that the president's oversight of that institution remains strong. He supervises the filling of senior positions and ensures that the armed forces don't get too much credit for achievements. Officers are frequently rotated and discouraged from interfering in civilian policy issues, even when these affect the military's interests.⁽⁷²⁾ In a one-month study of primetime coverage by the official television station, the military was mentioned as a news item only once. In Jordan, by contrast, the army was deemed newsworthy on 14 of 30 days. Coverage of the Egyptian military in the official Egyptian press is also scarce. This may be due to the widespread

belief in the virtues of secrecy that so characterized the October 1973 war, Egypt's greatest military achievement in the past century.

CONCLUSION

The Egyptian military's relationship to the political sphere represents a sobering reminder to the social scientist just how difficult the task of theorizing civil-military relations in the Middle East. The differences among Arab armies as institutions and fighting organizations are quite extensive.

Equally, Egypt's armed forces have elements of both modern and post-modern armies. For example, it continues to be large, yet it is becoming rapidly more professional.⁽⁷³⁾ Western armies are normatively peripheral but sociologically fused with mainstream society due to reliance on professional and technological training, professional wives and tendencies to live in civilian areas. In the Egyptian military, by contrast, there is growing physical segregation alongside a functional and economic expansion into civilian roles.

At first glance, growing physical segregation and economic role expansion should be perceived as contradictory trends: the first suggesting the modern army of yesteryear, while the latter should be seen as a characteristic of the post-modern army. The expansion of the Egyptian military into civilian, industrial and technological spheres, however, has nothing to do with the fiercely individual nature of career choices or role transformation characterizing post-modern states and their militaries. This is very much a reflection of the previous modern state and army era, and probably also reflects its earlier stages. While this is not quite the status of the military's involvement in the economy under Muhammad Ali, it is not radically different either.

A rent-seeking military the size of the Egyptian army suggests that the Egyptian state is a long way from making the transition to the post-modern, globally oriented service-state.⁽⁷⁴⁾ Egypt's poor economic prospects might not necessarily reduce the military's privileges, but at some point it could weigh

heavily against its long-term prospects of keeping up with the technological advances amongst Egypt's military competitors. In the event of a conventional inter-state war, this could prove to be crucial, especially against the potential Israeli foe.

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For other MERIA Journal articles on related subjects, see:

Norvell De Atkine, "Why Arab Armies Lose Wars", MJ Vol. 4, No. 1 (March 2000) <<http://www.biu.ac.il/SOC/besa/meria/journal/2000/issue1/jv4n1a2.html>>, Kenneth B. Moss, "Strategic Choices in the Mediterranean", MJ Vol. 4, No. 1 (March 2000)

<<http://www.biu.ac.il/SOC/besa/meria/journal/2000/issue1/jv4n1a5.html>>, and Barry Rubin, "The Military in Contemporary Middle East Politics", MJ Vol. 5, No. 1 (March 2001),

<<http://www.biu.ac.il/SOC/besa/meria/journal/2001/issue1/jv5n1a4.html>>, Eyal Zisser "The Syrian Army: Between the Domestic and the External Fronts", MJ Vol. 5, No. 1 (March 2001), <<http://www.biu.ac.il/SOC/besa/meria/journal/2001/issue1/jv5n1a1.html>>

Michael Eisenstadt, "The Armed Forces of the Islamic Republic of Iran: An Assessment" MJ Vol. 5, No. 1 (March 2001), <<http://www.biu.ac.il/SOC/besa/meria/journal/2001/issue1/jv5n1a2.html>>, Oksana Antonenko "Russia's Military Involvement in the Middle East", MJ Vol. 5, No. 1 (March 2001),

<<http://www.biu.ac.il/SOC/besa/meria/journal/2001/issue1/jv5n1a3.html>>

NOTES

1. Charles Moskos, 'Towards a Postmodern Military', in Cohen ed., Democratic Societies and Their Armed Forces, p. 18. Regarding

the military cities see interview with Field Marshal Muhammad Husayn Tantawi, Armed Forces Commander-in-Chief and Minister of Defense, MENA, October 6, 1994 in FBIS-NES-94-195.

2. Bernard Boene, 'Trends in the Political Control of Post-Cold War Armed Forces', in Cohen ed., Democratic Societies and Their Armed Forces, p. 75-6.

3. Phillipe Droz-Vincent, 'Le militaire et le politique en Egypte', Monde arabe Maghreb-Machreq, 162 (juillet-septembre 1999), p. 26.

4. Ahmad Ibrahim Mahmud, 'Al-Quwat al-Musallaha wal-Siyasa al-Kharijia lil Misr', [The Armed Forces and Egypt's Foreign Policy], Al-Siyasa Al-Dawliyya, 139 (January 2000), pp. 62-69; In a speech at the Third Field Army headquarters, Tantawi placed the President's interest in social and economic advancement before Egypt's commitment to the peace process. 'The President is keen to provide job opportunities for young people, raise the standard of living of citizens and upgrade services (health, education, food) develop utilities (water, sanitary drainage, transportation, housing) and create a new society in which new generations may enjoy security, safety and prosperity. 'Defense Minister Notes Mubarak's Work for Development', FBIS-NES 1999-09-11, September 11, 1999.

5. Dr. <Abd al-Mun<im Sa<id, 'Limatha al-Hawar al-Istratiji al-Masri al-Amariki?' [Why an Egyptian-United States Strategic Dialogue?], Al-Siyasa al-Dawliyya, 134 (October 1998), p. 114.

6. In June 1999 alone, *Al-Ahram* reported on the opening of the Military Hospital in Al-Arish describing it as a 'gift to the people of Sinai' (June 6, 1999), the army's contribution in the fight against illiteracy in Jiza (June 21, 1999), and three articles on Egypt's peace keeping forces on the occasion of Mubarak's visit to central Africa (June 24, 1999 and June 26, 1999). In fact, five of the fifteen articles published in that month in the newspaper were devoted to these matters.

7. Droz-Vincent, 'Le militaire et le politique en Egypte', p.17.

8. '1998 Annual Report on Military Expenditures -Egypt', Submitted to the Committee on Appropriations of the U.S.

- House of Representatives by the Department of State on February 19, 1999. www.state.gov/www/global/arms/98-amiex1.html.
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 10. Anthony H. Cordesman, *After the Storm: The Changing Military Balance in the Middle East* (Boulder and San Francisco: Westview Press, 1993), p. 21.
 11. Joseph Kchichian and Jeanne Nazimek, 'Challenges to the Military in Egypt', *Middle East Policy*, 5, 3 (September 1997): 129.
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 13. FBIS-TAC-96-010. MENA broadcast, October 5, 1996.
 14. 'Egyptian Defense Minister Addresses People's Assembly Committee', FBIS-NES-96-026, February 6, 1996.
 15. 'Egypt: Egyptian Defense Minister Attends Military Exercises', FBIS-NES-98-112, MENA broadcast, April 22, 1998.
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 19. Dr. Abd al-Munim Sa'id, 'Limatha al-Hawar al-Istratiji al-Masri al-Amariki?', 114.
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 22. Ed Balnche, *The Old and the New-- Changing the face of Middle East Airpower*, *Jane's Defense Weekly*, November 10, 1999, p. 10.
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 24. Sa'id, 'Limatha al-Hawar al-Istratiji al-Masri al-Amariki?', p. 114.
 25. John Keegan, 'Egypt', *World Armies* (London: Macmillan Publishers, 1983), p. 168.
 26. Hatzofeh, p. 6.
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