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THE NATIONAL GEOGRAPHIC MAGAZINE

Bhutan, Land of the Thunder Dragon

By Burt Kerr Todd

With Illustrations from Photographs by the Author

"PLEASE come now to Bhutan. Jigmie leaves May 21st for Ha Dzong. We have received permission for you to join him."

This cabled invitation arrived last year at my home in Pittsburgh, Pennsylvania. It came from the Rani Chuni Dorji, wife of the Prime Minister of Bhutan, remote mountain kingdom of southern Asia.

"Tu-chi-chi [thanks] a million. Am leaving immediately. Don't let Jigmie get away without me," was my prompt reply.

Actually, this story had its beginning four years before when, as a student at Oxford, I met Ashi Kesang-La Dorji, attractive daughter of the Raja and Rani Dorji of Bhutan. She remarked that she was not only the first Bhutanese student to come to England, but also the first of her countrymen to cross an ocean.

Later, in 1949, when I trekked into Sikkim, Tibet, and Nepal, I stayed with the Dorjis at their winter home in Kalimpong, India. While there, I met the rest of the family—the Raja and Rani; their eldest son, Jigmie, and his wife, Ashi Tess-La; the two younger sons, Ugen-La and Lumpy-La; and the other daughter, Ashi Tashi-La.

The following year I had the pleasure of entertaining the Rani (Princess) as my guest, having invited her to visit America. Hearing her talk about her homeland made me more than ever eager to see it. Now I was to have my chance.

Bhutan lies squarely in the center of the Himalayas, amid the highest mountains on earth. It is only 90 miles wide by 200 miles long, but in its 18,000 square miles can be found such variety of climate and scenery, such grandeur and peacefulness, and such fascination of the novel and unknown as few countries many times its size can boast. Its neighbors are Tibet to the north, Sikkim to the west, India's West Bengal and Assam to the south and east (map, page 716).

Mountain-girt on every side, Bhutan long eluded the explorer. Two 17th-century Portuguese missionaries, Fathers John Cabral and Stephen Cacella, appear to have been the first Westerners to venture into the region.

Western Visitors Rare in Bhutan

Since then, with the exception of the British political missions of the Honorable Ashley Eden in 1863-64, and John Claude White in 1905, Bhutan has been visited by about as many Westerners as one could count on his fingers and toes.*

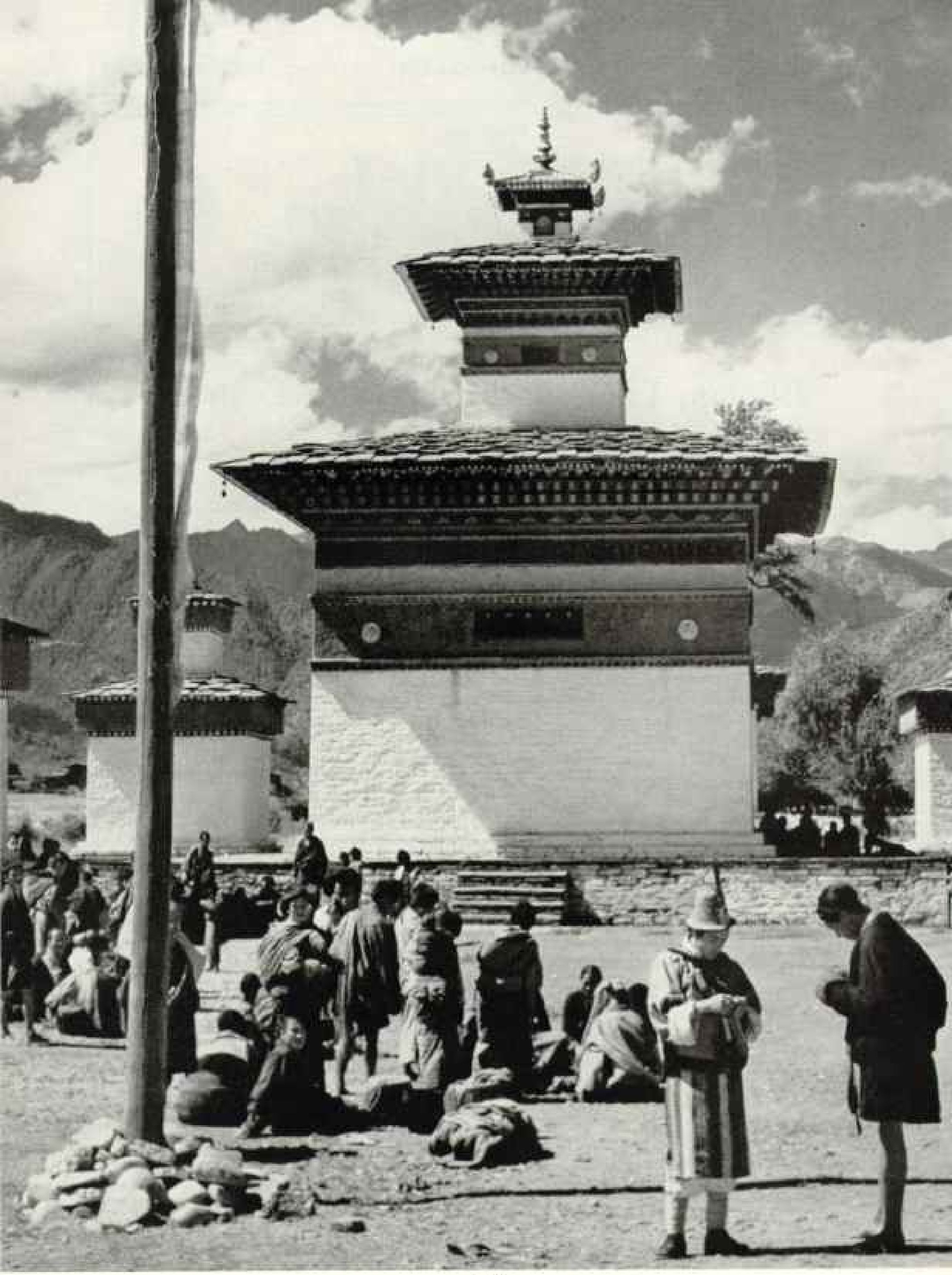
These visitors had been British subjects. The Dorji family had told me I would be the first American ever to visit Bhutan, and, through the special permission of the King of Bhutan, could remain there long enough to get to know a bit about the people, customs, and language. So it was with particular zest that I prepared for my journey.

When at last I reached "Bhutan House," at Kalimpong, jump-off point for Bhutan itself, Rani Chuni greeted me with smiling hospitality.

"Jigmie has gone on up to Ha; so do stay here a fortnight," she said. "It will take at least that long for all of us to make arrangements for your trip."

Generously the Dorjis saw that everything I needed was placed at my disposal—guides, mules, equipment, and those innumerable conveniences that make trekking in the Himu-

* See "Castles in the Air," by John Claude White, National Geographic Magazine, April, 1914.



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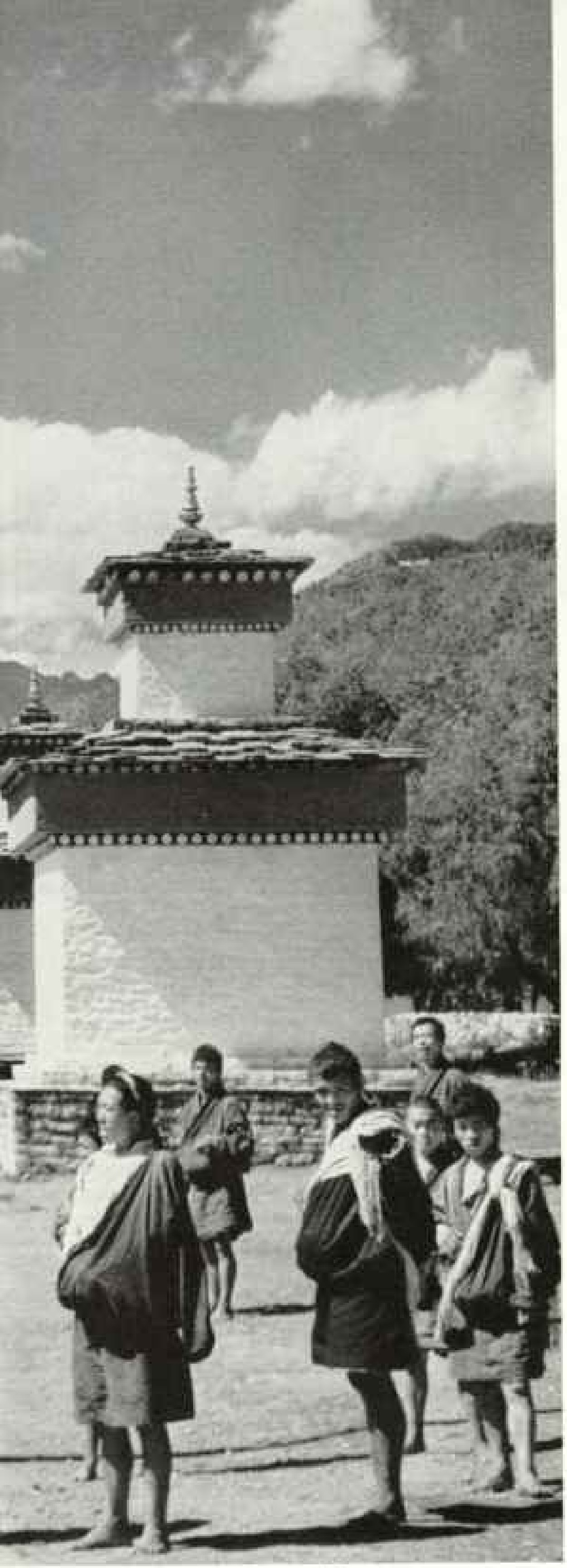
In Bhutan's Paro Valley: Pagodalike Shrines Waft Silent Prayers to Buddha . . .

Devout Lamaists build shrines, called *chortens*, to gain heavenly merit. These contain prayer books and sacred objects, but have neither doors nor windows. Bells on corners tinkle with each passing breeze (page 725).



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. . . While Vendors Hawk Their Wares Below

Tooth-staining betel nut, fruit, matches, and bowstrings change hands in this Himalayan market.

layas less arduous. These included, for example, thick rubber boots for monsoon travel and a heavy fur-lined robe for high altitudes. My friends also told me the Bhutanese for the words and phrases I would need to use. These I jotted down in a notebook.

I am especially grateful to the late King of Bhutan, His Highness the Druk Gyalpo (Thunder King), Sir Jigmie Wang-chuck, K.C.I.E., K.C.S.I., and to his son and heir, His Highness the new King, then Governor of Paro Province, who graciously gave me permission to visit their country. I was to find that they spared no effort to make sure my visit to Bhutan would be not only pleasant but rewarding.

It had taken 40½ air hours to cover the 10,000 miles from the United States to Kalimpong, India. It would take eight days over difficult paths and high passes to reach my first objective, the Ha Valley, in Bhutan.

Of several different approaches to the country, the two most used lie through Tibet—one by way of the 14,000-foot Natu La (Pass) and the other over the 14,390-foot Jelep La. Because of political unrest in Tibet at that time, these comparatively easy routes were denied me; instead, I had to take the Chamarchi, or southern route.

Plagued by Rains and Leeches

At one o'clock in the morning of June 9, 1951, I left Kalimpong by jeep. I wanted to reach the frontier at Chamarchi by daybreak to speed my escape from the malarious lowlands.

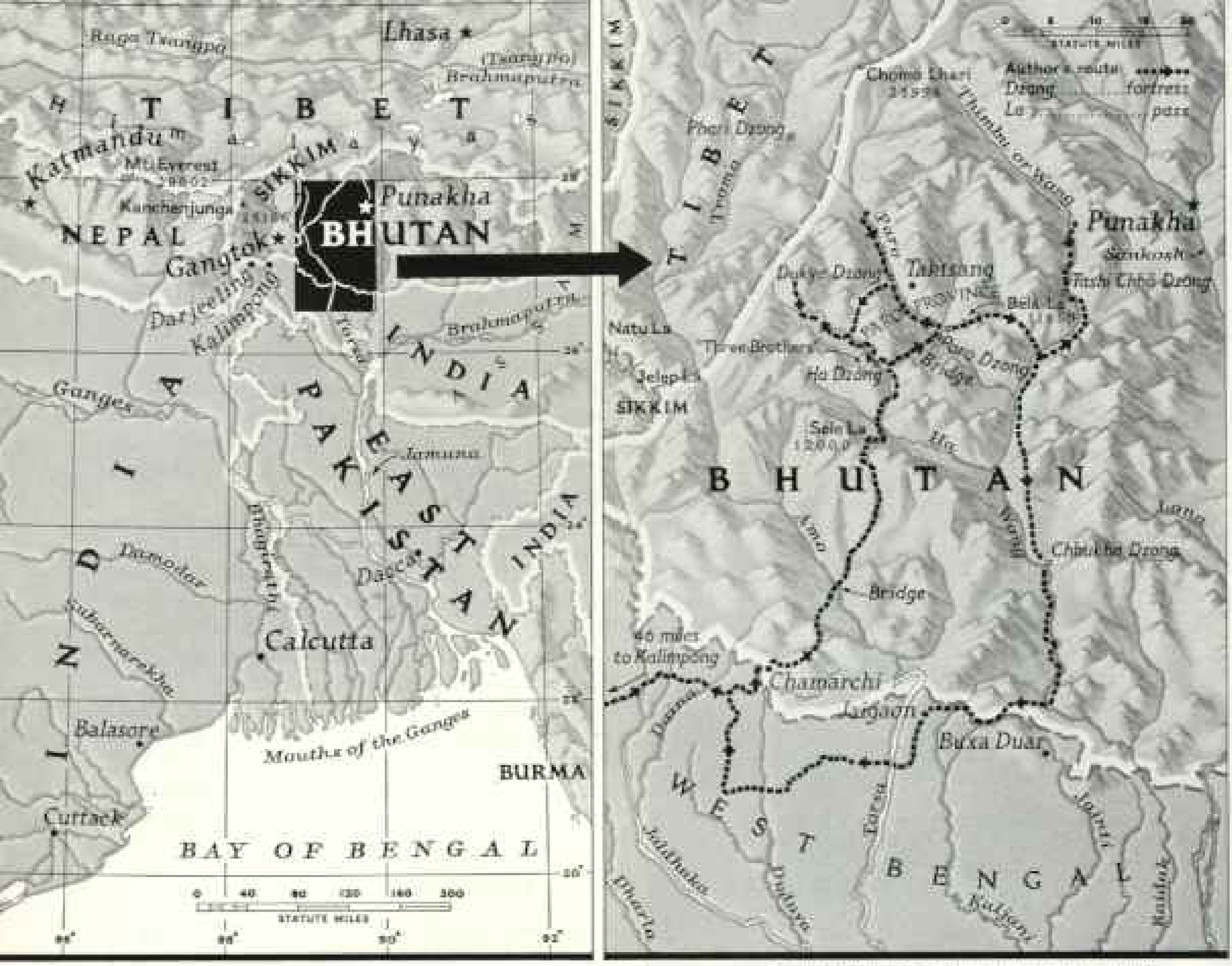
Once past Bhutan's border, the trail wound through forest and thicket, over rugged, irregular slopes thrust into the plains from the loftier mountains behind. Elephants, deer, tigers, rhinoceroses, and other wild animals abounded. By evening of the second day we had reached an altitude of 4,000 feet, out of the malaria zone.

My first eight days over the Chamarchi trails were uncomfortable. The experience of threading dense tropical jungle and encountering a profusion of wild game would have been glorious had it not been for the physical and mental dampening inflicted by the everlasting rains.

With the torrential downpours came the leeches, a continual annoyance to men and animals. It was impossible not to brush against the wet leaves or rocks where, with swinging heads, these pests awaited their victims. They clung in clusters to the men's bare legs or hid between their toes.

Each of my men carried a short stick tipped with a small wet pouch of rock salt. Touched with this, the leeches would drop off.

I felt particularly sorry for the mules, because they were unable to rid themselves of the vile creatures. The muleteers kept scrap-



Drawn by William N. Palmstrom and Irvin E. Altemus

Bhutan, Land of the Thunder Dragon, Hides Away among Earth's Highest Mountains

Stretching from India's jungles to Tibet's peaks, Bhutan offers a variety of scenery and climate. Yet few travelers have been permitted within its forbidden borders. World affairs threaten to break this policy of isolation, for Bhutan, like neighboring Sikkim and Nepal, stands buffer between India and the Chinese Reds now occupying Tibet. Mountainous Bhutan is no easy route for invasion, but reports tell of infiltration by Communist agents. Bhutanese cherish dragon and thunderbolt as national symbols.

ing off the leeches with their knives, but many stuck tight till swollen with blood to three times their original size.

In midmorning of the eighth day we reached the 12,000-foot Sele La. Far below, with the unexpected allure of a Shangri La, lay my destination, the Ha Valley. The beauty of the valley, bathed in sunlight between opposing wooded peaks, rubbed out the memory of steaming, leech-infested jungles. The mountain barrier on which we stood seemed to hold back the overburdened nimbus clouds from reaching the valley below.

Thickets Yield to Airy Pinewoods

Laughing and joking now, we started down the mountain. At once we noticed that the vegetation had changed completely. Instead of thickets of rhododendrons, magnolias, oaks, chestnuts, and bamboos, we were in the center of what seemed like a Canadian pine forest, here chiefly *Pinus excelsa*. It happened so suddenly that it looked as if a gigantic knife had divided one group from the other.

The ease of travel through the open pine forest was a relief. Several hours of hiking brought us down into the Ha Valley. Here the road was good and, for a change, fairly level. We passed several villages, and I was amazed at the ingenuity of the Bhutanese in housebuilding.

I saw no nails in these structures, the parts being fitted together instead by wooden crossbars and beams. Of molded mud blocks and pine timbers, they were nevertheless imposing. Outer walls three feet thick supported three main stories.

The ground floor was a stable for the cattle and a storehouse for farm implements. The second floor, reached by a ladder, was divided into four or five rooms—kitchen, chapel, strong room, and sleeping chamber. The third floor, open on all sides, was the granary. Here hung sheaves of wheat and barley, safe from animals and the elements. Large stones weighted the shingle roofs in alpine fashion to prevent their being blown away by the winter winds.

I could not understand why a few houses in each village, sometimes complete villages themselves, were deserted, the houses standing in ruins. Lengo, my bearer, explained:

"For my people to move into a house whose clan has died out or had to move away is to live under an unlucky roof. What happened to them might happen to us."

Here and there we saw piles of straw and compost, and, beside one house, a stack of pine logs ready for the fire that would never be laid. Flocks of pigeons circled above or perched on ridgepoles, but otherwise there was no sign of life.

As we continued on our way, the scenery became more and more impressive. On all sides stood wooded peaks; the most noticeable were the "Three Brothers," as the people of Ha call three uniform mountains that stand guard over their villages (page 726).

The valley's bed, only about a quarter of a mile wide, was perfectly flat. Down the center hurried the Ha Chu (River), reminding me of mountain streams in our Rockies.

The Ha Chu (pronounced just as we utter a sneeze) abounds in brown trout, ranging up to 12 pounds. I was told that they had been introduced from Kashmir. Transported in earthen jars as fingerlings by runners from Darjeeling, they have thrived wonderfully in the Ha Chu, the only stream in Bhutan yet stocked with them.

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Eating Cups Spin into Shape on a Carpenter's Lathe

Every Bhutanese carries one or two eating cups, some of silver-lined brier. Here the carpenter's helper treads organlike pedals to keep the shaft spinning, while the chisel curls shavings from a new cup (page 746).

Mile-and-a-half-high Rice

Stone walls fenced in the fields on both sides of the river. Water was conducted to them by a complicated system of small channels. I saw barley growing in many places, interspersed with plantings of wheat, radishes, turnips, and Indian corn. Rice, the staple Bhutanese food, was also cultivated up to 8,000 feet. Herds of fine cattle, for which the Ha villagers are noted, grazed on grassy flats and slopes (page 719).

Although my men were all Bhutanese, it was not until we made a rest stop at one of their little villages that I saw the people in their true environment. I quickly observed that the *Druk-pa*, or "thunder people," as the Bhutanese are called, reflect the ruggedness and character of their land.

Of Mongoloid origin, they are tall, muscular, good-looking folk, with sincere, honest faces. Men and women share equally in providing for the household; it is not uncommon to see women carrying 70- or 80-pound loads from the fields.

They possess a keen sense of humor and a marked degree of honesty and straightforwardness. I found the Druk-pa polite, courteous, and willing to help at every opportunity.

Begging is rare in Bhutan. There are no

The Happy Miller of Ha Grinds the Valley's Grain in His Dusty Mill

Ha Chu (River) water drives the millstones, crushing barley and wheat. From the grist the miller takes a toll for his services. His wife fills the hopper.

great concentrations of wealth and at the same time little of the grinding poverty I have seen in other parts of Asia. Practically everybody in Bhutan has enough to eat and to wear.

The language of the Bhutanese is a dialect of Tibetan, blended with words and idioms from their neighbors. Their religion is virtually the same as Tibetan Lamaism, a form of Buddhism.

Both men and women dress most colorfully. The men wear a loose, knee-length robe bound securely by a tight sash at the waist. The women's dress consists of a piece of Bhutanese cloth about the size of a bedspread or blanket, woven in colored strips. When draped round the wearers, fixed in place by silver clasps, and held tight by a brighter *kera* (waistband), it makes a simple but most attractive costume.

Bhutanese clothing is versatile. By night it serves as blankets. By day it provides voluminous carrying space. Material above the sash pouches out to form a ready-made pocketbook big enough for the needs of any woman, even an American! Here the wearer carries an assortment of everyday necessities, including silver-lined eating and drinking cups, called *pops*, and boxes holding betel nut, a peppery leaf, and lime, the Bhutanese substitute for tobacco.

Every Bhutanese male regularly carries a knife, called a *dossum*, which he uses constantly in his daily chores. His *pathang*, or ceremonial sword, is reserved for wear in and around the *dzongs*, or forts, that dot the countryside. Without the sword, and an appropriate shawl to show his rank, he is not permitted within these centers of Bhutanese public life.

Welcome Sealed with *Chang*

It was late when we at last reached Ha Dzong. My good friend Jigmie Dorji, the *Dzongpon*, or Governor, of Ha, strode forth smiling to greet me. After a refreshing glass of local brew called *chang*, made of hot water and fermented barley meal, we visited the dzong, the political, social, and judicial center for the people of the valley. Citizens gather continually in its courtyards and on the grass plain before its imposing entrance (page 727).

The fort of Ha is a sturdy, businesslike structure. Like numerous other forts throughout the country, it is a rectangular building, surrounding a courtyard, with a tower in the

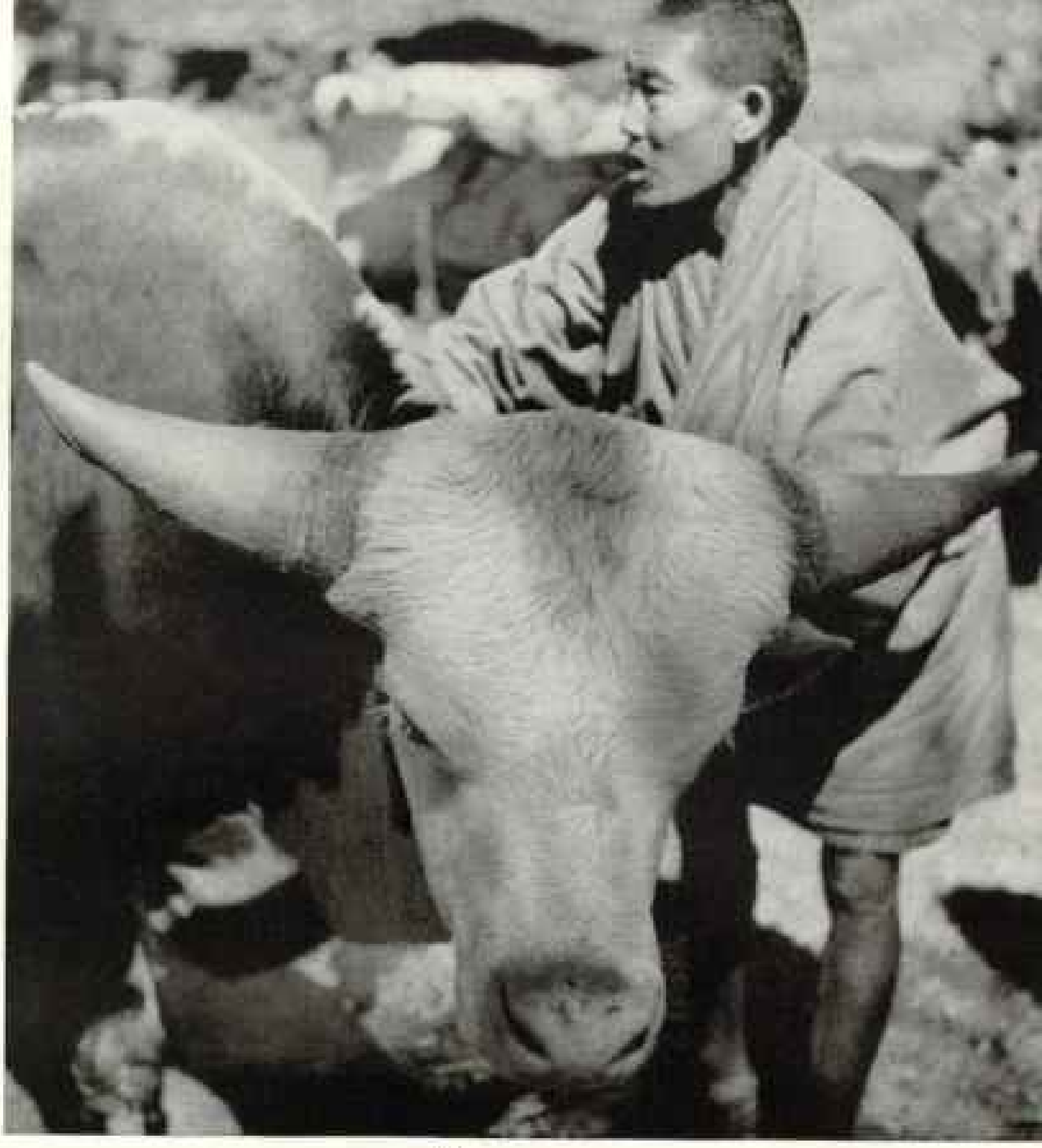
center perhaps 50 feet high.

The outer building has three stories. The two upper floors are habitable; the lower serves as a granary and as sleeping quarters for travelers (page 727).

Beams of the rooms and arches throughout the dzong are richly painted in blue, orange, and gold; the dragon, a familiar Bhutanese symbol, is displayed everywhere. On walls and archways hang bows, quivers, polished iron helmets, swords, matchlocks, coats of mail, and flags.

The outside of the fort is whitewashed; slits and windows in the upper stories once served as loopholes in time of war.

Making my headquarters in Ha Valley, I struck out frequently on tours, sometimes lasting 20 days, into the ranges and valleys of western Bhutan. Hunting for bharal, a sheeplike mountain animal, took me once to 16,700 feet near the Tibetan-Bhutan border. In this area, but at a lower altitude, the Ha people graze vast herds of yaks—the animals that provide meat, tents, ropes, dairy products, and transportation for all the peoples of the upper Himalayas.



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A Herdsman Grooms a Prize Native Bull

Bhutanese take pride in a superior breed of cattle, rich producers of cheese and butter. This animal belongs to Ha's governor.

In mid-September a message came to Ha Dzong foretelling the arrival of Ashi Kesang-La Dorji, my friend of Oxford days. She was to become the bride of the heir apparent to the Bhutanese throne, the *penlop*, or governor, of Paro Province.

This electrifying news swept throughout the whole of Bhutan, for this would be the first royal wedding in three decades.

Leaving her home, "Bhutan House" in Kalimpong, Ashi Kesang-La would journey through Sikkim and over the Natu La into Tibet. Accompanied by her mother and younger brother and 50-odd retainers, she was expected to reach Ha Dzong, her family's ancestral home, around the first of October.

Here Comes the Bride

Visiting dignitaries, lamas, headmen, and dancing girls swarmed into Ha. From Paro Valley came a detachment of the governor's own honor guards. Richly bedecked riding ponies and endless strings of mules churned dust from the valley trails.

At stations along the bridal road villagers made feverish preparations; they laid incense fires and built stands that would offer food and drink to the passing cavalcade (p. 738).

When at last Ashi Kesang-La Dorji came into the Ha Valley, she was obviously pleased by the tumultuous ovation. Then indeed did excitement reign. Tributes and celebration paid no heed to the clock. Even sleep seemed unimportant.

The bride-to-be remained a week at Ha Dzong. Then, at sunrise one morning, the bridal party set out for Paro Valley. With an honor guard of more than 250 people, many astride gaily caparisoned ponies, it wound its way up the switchback turns of the Paro-Ha pass, looking for all the world like a lazy rainbow-hued snake. Mule trains of presents brought up the rear (pages 740-741).

At the head of the procession a half-dozen lamas in scarlet robes took turns carrying a golden Buddha, a golden *chorten* (shrine), a book of Buddhist scriptures, and a heavy wedding seal, symbolical respectively of love, peace, auspiciousness, and good fortune, which proclaimed the forthcoming marriage. Songstresses and dancing girls followed, twirling and twisting to the accompaniment of tom-toms, high-pitched trumpets, and flutes.

Clashing cymbals threw out sharp, ringing tones.

High officials mounted on ponies wore brocades and silks of every color, with blues, reds, and yellows predominant.

Monks carrying *thungs* (silver trumpets), which they blew energetically while swinging them in unison from right to left, preceded the bride-to-be and her immediate family. Behind the royal group came the King's personal band, dispatched overland many weeks earlier from the capital, Punakha.

Good musicians made up this band, but they seemed strangely out of place, for they alone were clad in Western dress. (Even I wore Bhutanese costume, presented to me earlier by the King.) In khaki uniforms and tightly wound puttees, and with Western instruments, including bagpipes and drums, the bandsmen seemed intruders from the other side of the world—the more so, when they struck up "Marching Through Georgia!"

The band leader had heard this piece in India where he had been sent to learn to play each individual instrument. Upon his return to Bhutan, he trained an entire band. Lacking sheet music, he taught his men dozens of numbers by ear alone.

On either side of the procession a special group of dancers performed, shaking skull drums fastened together like double tambourines and twisting back and forth to each beat. They continued dancing all the way up one side of the pass and down the other.

Well down toward Paro Valley the procession halted. Places in line were assigned, and we were told to mount our ponies.

To ride downhill is a rarity throughout the Himalayas, for the tribesmen still accept the old saw: "A pony is not a pony unless he takes you up the mountain; a man is not a man unless he walks down the mountain."

"Today Is an Auspicious Day"

Reaching Paro, the bridal party was greeted by a delegation of high officials standing at the end of an avenue of pines. Flagpoles, with red and yellow streamers flying, had been set between the rows of trees.

Each official swept the red shawl of office from his shoulders, bowed low with arms extended, and repeated the formal greeting: "Today is an auspicious day for Bhutan; we greet you."

Following traditional Bhutanese custom, we were all given ceremonial cups of saffron tea and sweetened rice, after which the bride-to-be went to her quarters. She was not to see the groom till 10 o'clock next morning, the time deemed propitious by the oracles for the wedding.

Morning found Paro bustling with activity. The local populace and visitors from as far as 100 miles away lined the road to the dzong where the ceremony was to take place. Dignitaries rushed here and there arranging costumes, affixing swords, and giving last-minute instructions to their headmen. These in turn saw to the bands, drummers, and dancing groups and gave instructions to the men who groomed the horses and policed the crowds.

To the salute of many guns, the bride appeared, mounted on a splendid riding pony (page 739). The wedding procession, now three-quarters of a mile long and numbering more than a thousand people, crossed the Paro Chu bridge, its rafters hung with silken tapestries and brocades.

A Scene of Medieval Splendor

My own place in line permitted a sweeping view of the ranks. As on the preceding day, we were flanked by musicians and heralds. I had the feeling I was witnessing some spectacle of the Middle Ages.

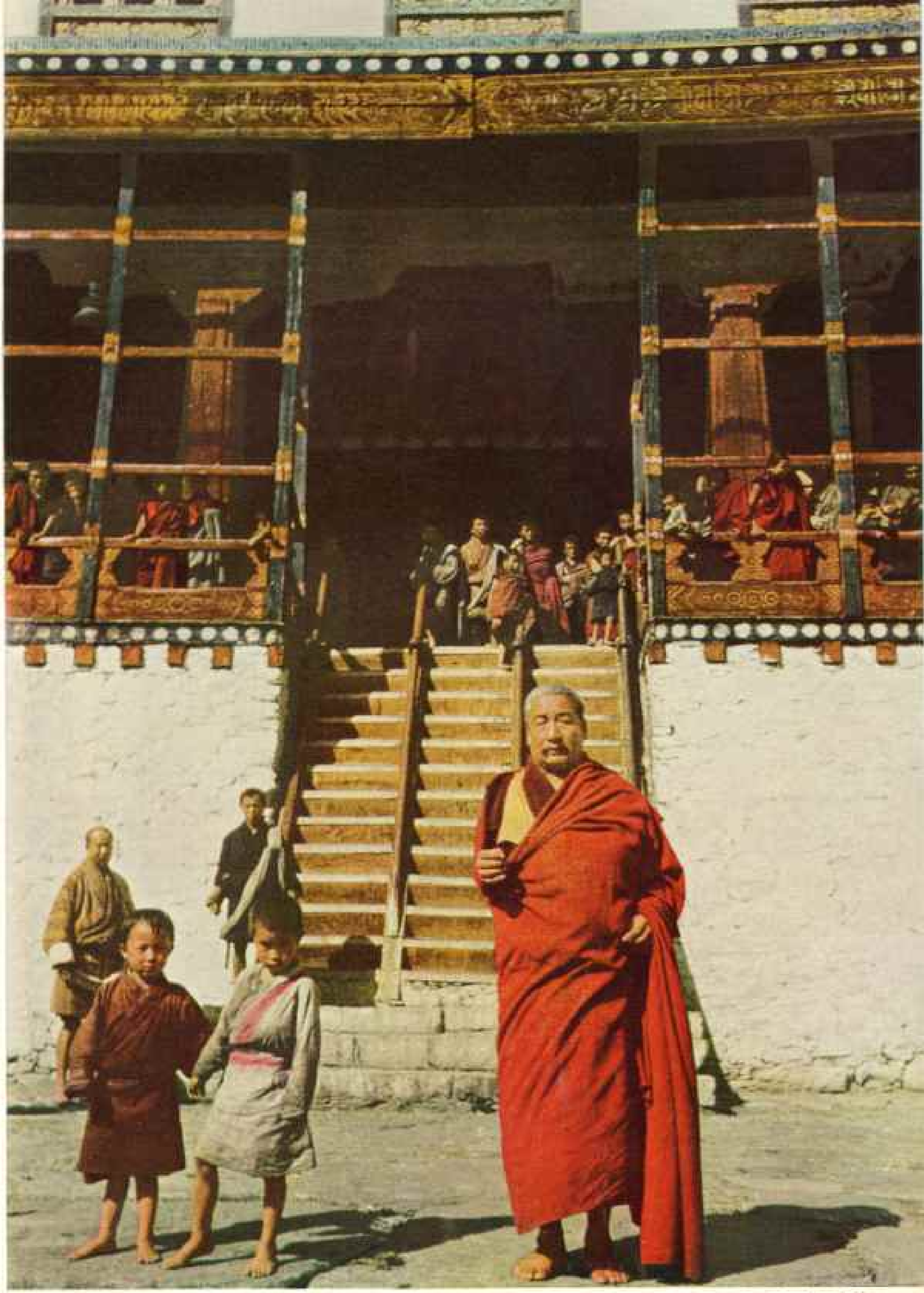
Ashi Chodon, Queen of Bhutan, greeted the bride on the steps of the dzong (page 742). They exchanged ceremonial white scarves and walked down a red carpet which led into the courtyard where a special ceremony was held. The monks blessed the bride, and then the party withdrew to the Zimchung Hall, a handsome room with a balcony overlooking the Paro Chu.

The Governor of Paro awaited his bride at the entrance of this room. They greeted each other by exchanging white silk scarves, then crossed over to thrones on the balcony, where they sat on cushions behind an elaborately carved small altar (page 745).

Ashi Kesang-La Dorji wore a purplish brocade dress overlaid with silver flowers, and a bright red shawl. A bridal cap of pearls, diamond earrings, bracelets, and a jeweled charm box completed her costume. The groom wore golden brocade and his red silk shawl of office, with an exquisitely engraved silver sword at his side.

Seats to right and left of the thrones were reserved for members of the wedding party. Before each cushion stood a small table with fruit in silver bowls. When all were seated, saffron tea and sweetened rice were served.

A short prayer, led by the head lama of Paro and intoned by other monks, began the ceremony. Next, a large caldron of chang was placed in the center of the room. The lama stirred the beer three times with a long bowl-shaped ladle, which he then held aloft in one hand, raising the other in prayer. Twice repeating this ritual, he advanced with ladle full to the bride and bridegroom, who received the blessing by tasting the chang with the tip of the second finger.



Kodachrome by Burt Kerr Todd

"Welcome to Tashi Chhö Dzong!" Red-robed Lamas Emerge to Meet the Author

Bhutan, like Tibet, follows Lamaism, a mixture of Buddhism and animism. Many Bhutanese men and boys become lamas, or monks, and enjoy state support. This lama is one of 800 housed in the monastery.

Caldrons Steam as a Herder's Wife Makes Yak-milk Cheese

Marco Polo nearly seven centuries ago marveled at Central Asia's "grunting oxen." Those shaggy cattle, yaks, are indispensable to highlanders in Bhutan and Tibet. Able to stand cold and high altitude, they make excellent pack animals and provide meat, hides, dairy products, and hair (for cloth and rope). Their tails are exported for fly whisks and Santa Claus beards.

Bhutanese families like this one graze herds of 50 or more yaks far up in the Himalayas. They live in long, single-room tents of yak cloth and burn rhododendron wood or yak dung for heat.

Yak's milk cooking in this copper tub will make hard smoked cheese like that hanging in dark blocks at upper left. Bhutanese, who love cheese, love butter even more, putting it into their tea and most of their food. They also pay taxes with butter.

These women wear long hair in Tibetan style; the children have Bhutanese-type short haircuts. Bedspreadlike wrap-arounds, held by sashes and shoulder clasps, clothe the women. Baby holds a cauliflower.

Mule and Man Traverse a Swaying Bridge in Bhutan's Border Lowlands

← Stones steady this Amo River bridge, reached by author's mule train after a day's travel up the Chamarchi trail. Rails are bamboo and flooring is woven cane, but cables are steel, a rarity in Bhutan.

↓ Bhutan's Government discourages outsiders from penetrating its wild mountain barricades. Only a handful of Westerners have visited the country. Lacking newspapers, radios, cars, and planes, most Bhutanese know nothing of Western ways. Here mechanical toys and a radio brought by the author delight the villagers of Ha. Dr. Kabo (Western haircut) studied medicine in Calcutta.

Kodachromes by Burt Kerr Todd

Paro Valley's Scattered Farmhouses Stand in Fields Like Pieces on a Chessboard

Fields of rice, barley, wheat, and vegetables cluster near the *dzong* (fort), center of government and community life. The road to Ha Dzong snakes up the mountain at left. Most Bhutanese live in high, narrow valleys like this.

Kodachrome by Burt Kerr Todd

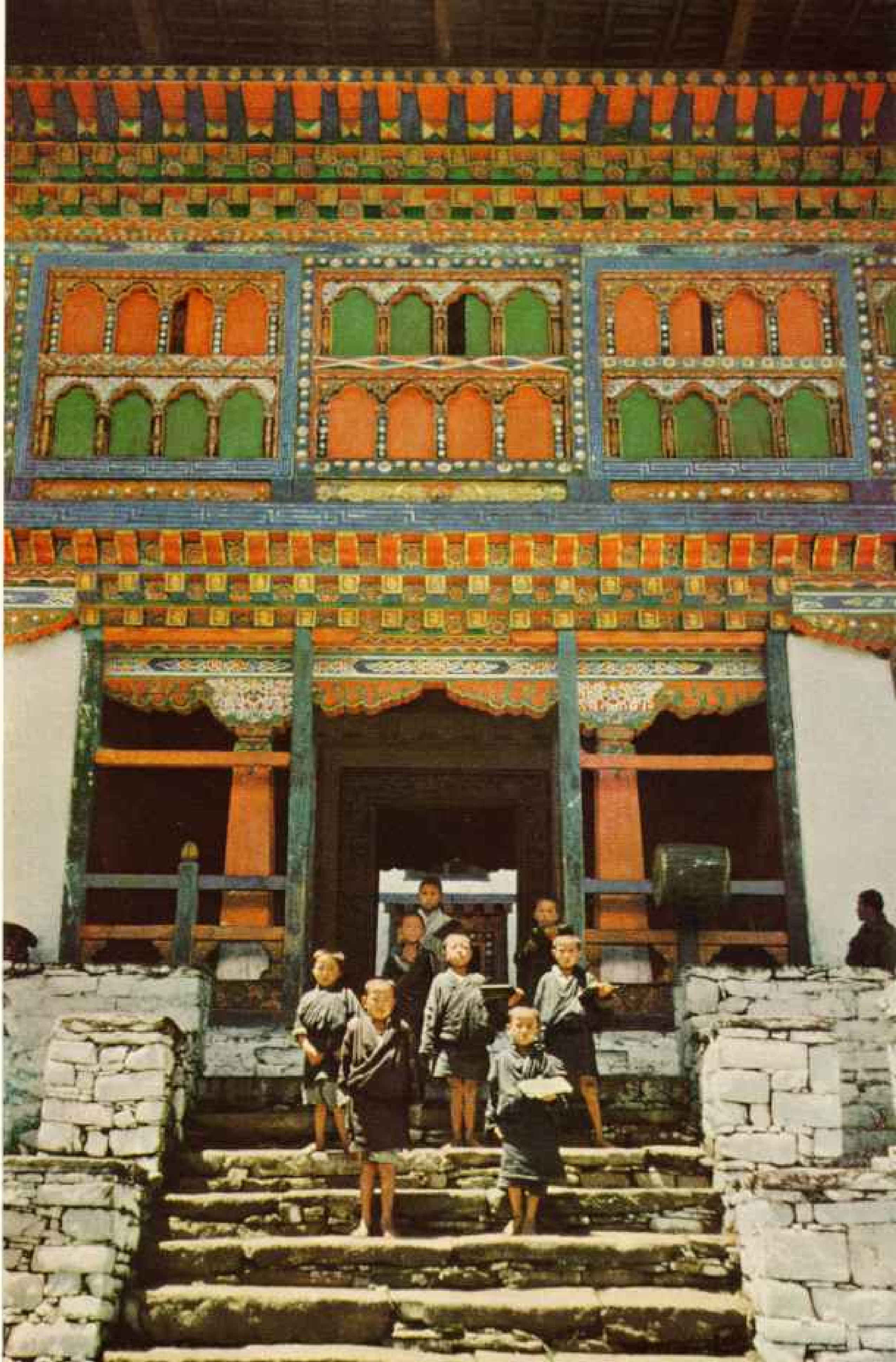
Whitewashed Paro Dzong, Once an Arsenal, Now Commands a Peaceful Countryside

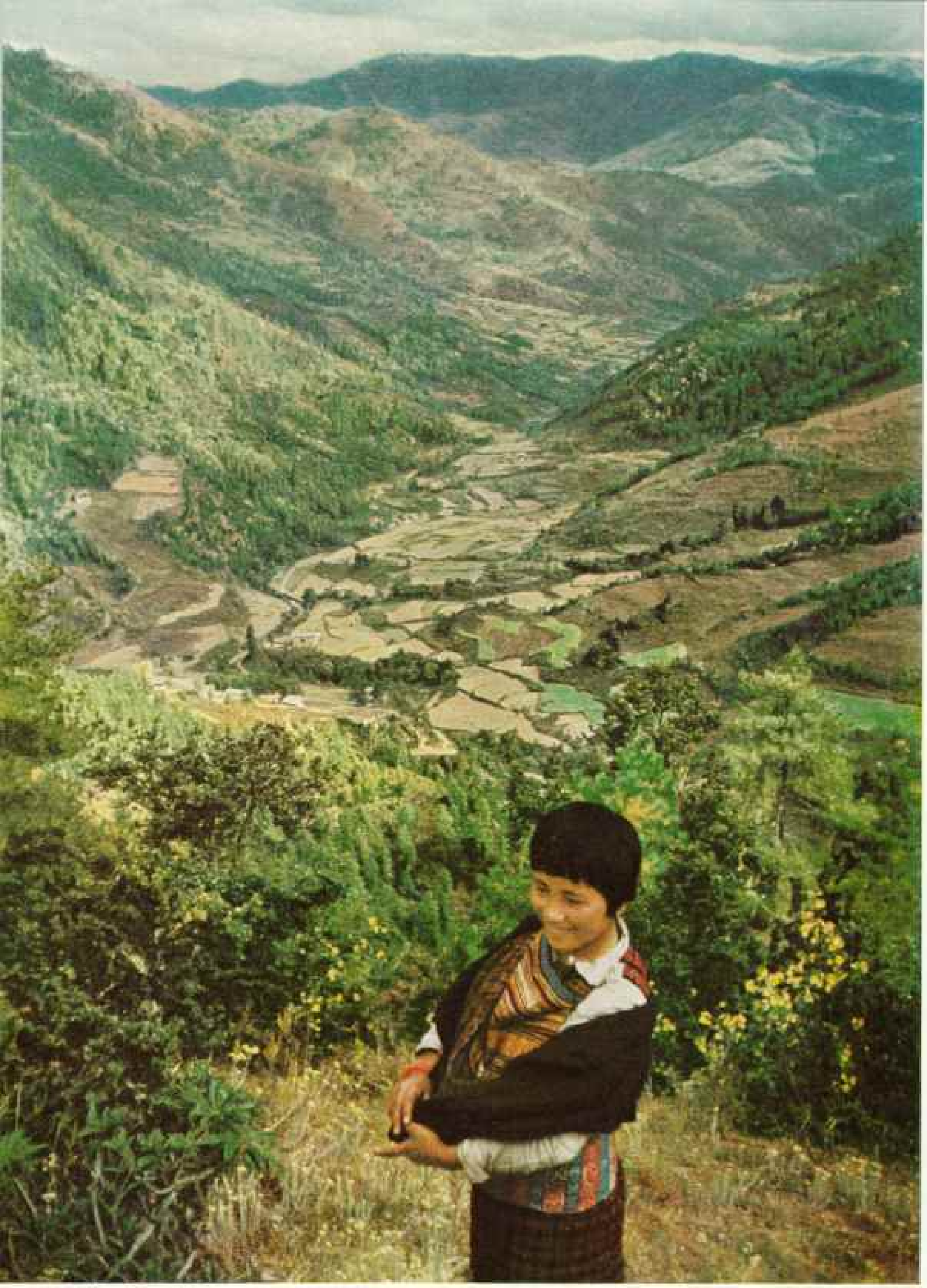
Battlements, archers' loopholes, and a single steep entrance give protection to the fort. A pagodalike house, home of the Governor, lies across the Paro River. Three identical *chortens*, or shrines, stand beyond.

Flails Beat in Rhythm as Maids of Ha Valley Thresh the Governor's Barley

Pounded on sun-baked clay, barley husks give up their grain for pastry and *chang*, the Bhutanese beer. With each twist of the breeze, the prayer flag (left) mechanically repeats devotions to Buddha painted on its surface. One of the Ha Valley's pine-cloaked "Three Brothers" looms beyond.

➤ School children go to Ha Dzong for lessons in geography, arithmetic, and reading (Bhutanese, Hindi, and English). Jigmie Dorji, Governor of Ha, encourages all children to attend school. Sliding shutters substitute for glass in the fort's windows. The drum (right) announces meals.





Kodachrome by Bart Kerr Todd

Mountains on Every Side Hide Wong Valley; India Lies Beyond

Snow-fed streams irrigate terraced fields torn from the forests carpeting Bhutan's never-ending mountains. Here on the Buxa Road (left center) the author neared the end of his Bhutanese journey.

As these proceedings ended, another lama sprinkled drops from a small receptacle of holy water, first on the altar of the chapel, then over bride and groom. Intermittently, prayers were chanted, bells tolled, and cymbals clanged.

Finally, a last sipping of tea and tasting of rice ended the marriage ceremony. It had been an occasion of rich fascination, conducted throughout with the greatest reverence. Congratulations followed, first by members of the royal family and then by the guests.

Numb Legs Cause Crisis

When it came time for me to present the traditional white scarves to bride and groom, I found I could not move. There was an awful moment of embarrassed silence, everybody aghast at my lack of social grace. Jigmie Dorji, seated on my right, jabbed my ribs, whispering, "Hurry up, Burt, it's your turn now. Present the scarves!" The prodding was unavailing; I couldn't move.

After sitting cross-legged for more than an hour, my legs, unaccustomed to that posture, had gone to sleep. They were numb and, as far as I was concerned, dead. Because of the delay, while circulation was restored, my scarves were the last presented. Even so, it was a major challenge to my shaky legs to walk the few yards to the thrones and return.

The guests' presentation completed, an almost endless procession of officials, dignitaries, retainers, and lamas filed past the newlyweds. Each presented two white scarves, one on the table before the bride, the other before the groom, until both were hardly visible behind the mounds of white silk.

As the master of ceremonies announced the name and rank of each donor, his presents to the royal couple were placed in two long lines before the thrones. The room soon filled with silks, sacks of rice, tea, bolts of fabric, woolen and cotton goods, elephant tusks, small bags of gold and silver, and trays of precious stones. There were well over 400 donors, and the afternoon was waning before we left the dzong.

Instead of riding from the fort to the guesthouse, Ugen-La Dorji and I walked. Festive multitudes lined the road, and a particularly dense crowd flanked the entrance to the Paro Chu bridge. As we passed, I overheard a disparaging remark, apparently directed at me, and a murmur of amusement running through the crowd. I asked Ugen-La the reason.

He grinned. "The people thought your Western full-dress suit rather peculiar," he said, sweeping with an appraising glance the white tie and tails I had donned instead of Bhutanese costume (page 747).

"What's wrong with it?" I asked.

"Oh, personally I think it's fine," replied Ugen-La, "but that woman in the crowd thought it rather pathetic that an official guest should appear with such a terrible split in the back of his coat!"

The wedding reception lasted 12 days. Dances were staged morning and evening. These sacred mystery plays, miscalled "devil dances," showed great originality. Lamas played skeletons or demons, wearing red silk skirts banded with yellow, which formed circles of brilliant color as they whirled. Others flourished chainwork ornaments of ivory beads and wore grotesque masks adorned with deer antlers and yak horns (pages 748, 749).

The eleventh evening of the reception was reserved for the Black Hat dance. Performed by the light of bonfires, it far exceeded any of the previous entertainment in elaborate routine and fanciful costume.

Dance Tells a Lethal Tale

"The story comes from our scriptures and history," Ugen-La Dorji explained. "With its legendary origin in Tibet, it commemorates the assassination of King Langdarma, who ruled Tibet in the ninth century."

This wicked monarch impoverished the country by countless wars, persecuted the Buddhist religion, and sacked the monasteries.

A great lama decided to end the reign of terror. Dressed in a black coat and black hat, he went out onto the plain, where he knew the King was, and began to perform a weird and mystic dance.

The King, noticing the dancing monk, sent for him to come and perform before the court. As the monk kneeled before the King, he suddenly drew a short bow and arrow from his voluminous sleeve and killed the monarch. In the confusion that followed, the monk assassin turned his coat inside out, revealing a white lining. In this disguise he escaped.

This story, as we saw it played now, opened with a procession of lamas filing into the courtyard below us. They carried drums on four-foot poles, beating them with swan-necked drumsticks. These instruments, together with cymbals and two copper trumpets nearly 15 feet long, beautifully ornamented with gold, made up the orchestra.

The music started. One of the long horns had a deep note, the other a high. Each took up the note as soon as the other had dropped it (page 733). Drums and cymbals added their own beat to the rhythm.

Dancers clad in black and scarlet swept onto the scene. Their heavy long-sleeved robes were exquisitely embroidered with silver. Each performer wore a wide-brimmed hat fringed with black fur and surmounted with

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App Chungdu, God of Luck, Presides Over the Destinies of Ha Valley

Buddha (in background) takes a back seat to Bhutan's primitive gods. Ha's people give scarves (across shoulders) and money (in tray) to pacify this angry deity, then throw dice to learn their fortunes. Here the author rolled an unlucky number (page 735). A religious banner (upper left) tells episodes in Buddha's life.

a miniature skull (page 734).

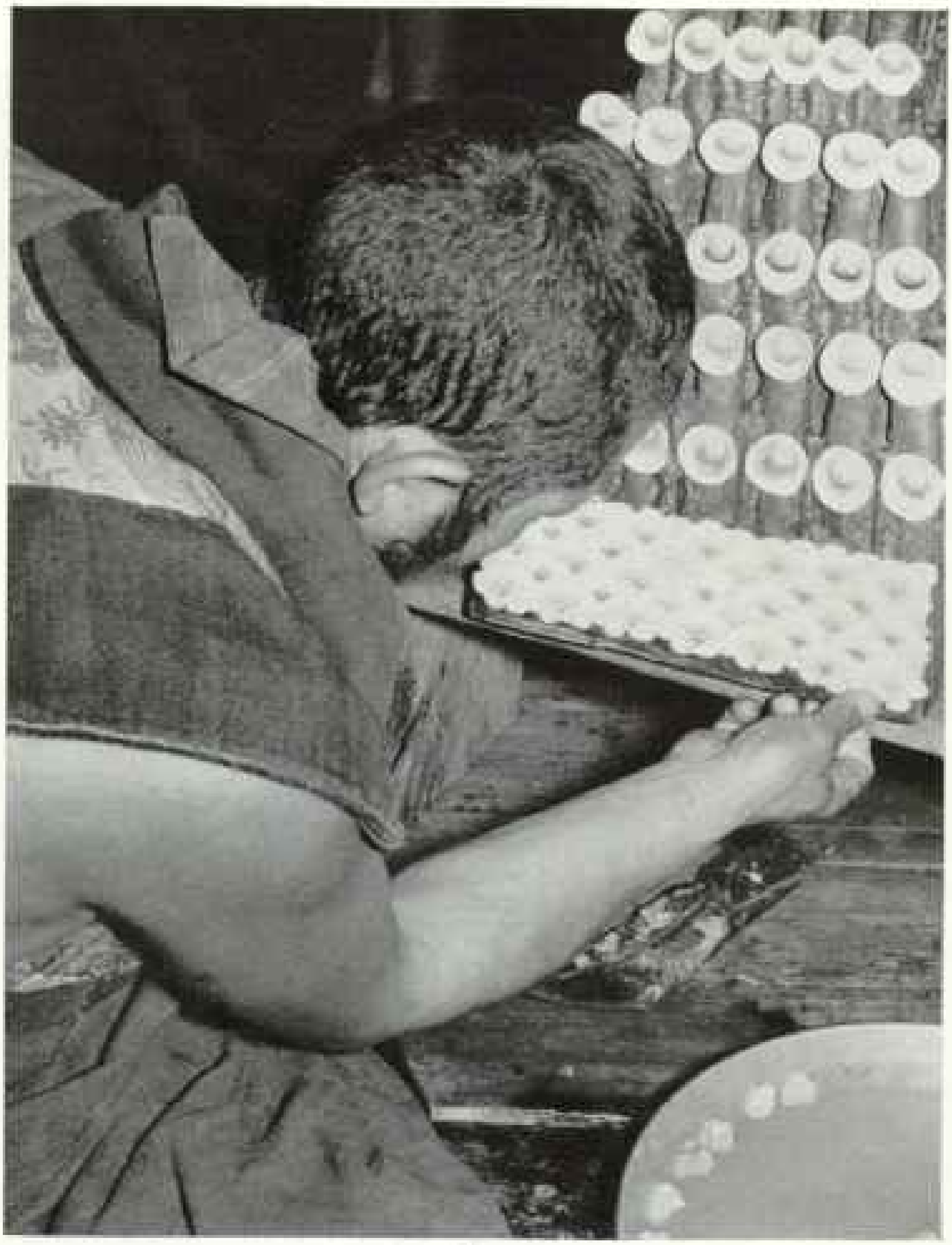
"Every gesture is a symbol; so watch the dancing master's hands and feet," Ugen-La Dorji said.

As the slow, dignified dance unfolded its pattern, the dancers circling each other with balletlike grace and poise, I could well imagine how Langdarma was beguiled by this mystic beauty. Although the performance seemed only of a few minutes' duration, I had actually been held enthralled for three hours.

Archery was a daily entertainment. It is to the Bhutanese what baseball is to Americans. Fans are just as loyal to their team and favorite archers as are diamond-minded Americans to idolized clubs and players (page 751).

Spectators crowded the archery green, a grassy stretch approximately 200 yards long, flanked by willow trees. At either extremity a small dirt mound supported the wood target, only four feet high by two across. A lean-to of overhanging pine boughs shaded the target, caught wild arrows, and held the silken scarves which rewarded the archers.

"Shoot for the sky," Jigmie told me when I tried my hand at the game. "These bamboo bows are not as sturdy as your American ones."



731

A Paro Monk Finger-paints with Butter

The artist models brightly colored butter on a barley-dough base to decorate a Lamaist altar. Butter also serves as a fuel for altar lamps.

Girl Hecklers Hamper Aim

Even so, it was difficult to reach the target 100 yards away. The thrill of the game was in the wild shouting and the yells of the archers after releasing their shafts, begging them to strike the distant target, and in the heckling by their opponents' "*lo-go-bay* girls."

These girls, seven or more to a side, may, by the rules of the game, dance, shout insults, and even wave scarves in front of the archers. Despite this constant harassment, the men proved exceptionally good marksmen.

The royal wedding and reception constituted a Bhutanese national holiday. Few of the people present missed a single dance, pageant, or archery contest.

The last day of the reception, however, was particularly the people's day; they were the special guests of the bride and groom. Early in the morning throngs gathered in the dzong, courtyards, avenues, and greens. The old and crippled clung to their sons and daughters, who in turn firmly grasped the hands of their own children, not to lose them in the crowds. Smiling faces, good humor, and laughter were everywhere.

A feast of rice, yak's meat, pork, chili peppers, and vegetables cooked in butter was spread out for all comers. Eight thousand were fed that day. After the meal, each guest received a silver coin to commemorate the wedding. More archery and dances followed. Far into the night the bonfires blazed, music played, and people rejoiced. Not one of them

A Ladle Full of Bark Pulp Becomes a Sheet of Parchment for a Sacred Book

Paro's papermaker ladles watery pulp from the vat onto a bamboo screen. He smoothes the pulp, drains the water, and strips off a damp sheet of paper. Later some monk will pen holy writings on its surface.

could have enjoyed those festival days in Paro Valley more than I.

After all this, I postponed my return to Ha for several days to explore Paro Valley.

"Climb up to Taktsang. It's one of our oldest and most interesting monasteries," the Governor suggested.

My road to the monastery led past a most striking chorten at the base of a long range of mountains. Of whitewashed stone in the shape of a huge bell, it was surmounted by a gilt cupola. I stopped to investigate.

What I found was a chorten inside a chorten—an unusual structure indeed. Later, I learned that the Earl of Ronaldshay, a quarter of a century earlier, had puzzled over this same monument. In his noted book on this part of the world, he gives the following explanation told to him by the people of Paro:

"The builder, a famous lama, on coming to Paro found the hand of death heavy upon the people of the valley. By virtue of his miraculous powers he divined the cause. A monster of the mountains, a ghoulish frog, which battened on human blood, had made its abode in the valley. The monster's mouth was detected in a hole in the ground, and was effectually stopped by the erection over it of a chorten. This was the core. In later days a rich man came along and protected the monument, whose preservation was of such vital importance to the people of Paro, by encasing it in an outer covering, and so . . . the people of Paro were saved." *

* *Lands of the Thunderbolt, Sikkim, Chumbi & Bhutan*, Constable and Company, Ltd., London, 1923.

Giant Trumpets Sound a Wail as Melancholy as That of Foghorns

Monks blow their silver-bound copper horns alternately, producing sirenlike moans of low and ultra-low notes. These musicians play in Ha Valley during a religious ceremony. Horns telescope for carrying.

Taktsang Monastery is situated in an almost inaccessible spot. A sheer wall of granite lifts 2,400 feet above the valley floor. Two-thirds of the way up its perpendicular face, in a horizontal crack, industrious monks built this retreat, literally clinging to the face of the rock (page 735).

Inaccessible Tiger's Nest

The story goes that Guru Rimpoché, the monk who converted Bhutan to Buddhist faith, found this secluded spot while out riding one day on his favorite tiger. Impressed with its panoramic view, he ordered a temple erected. "The Tiger's Nest," a translation of Taktsang, gives added point to this tale.

But it would have seemed more believable to me if the legend had Rimpoché riding a mountain goat! The last few hundred yards of the trail ran along a narrow ledge above a terrifying precipice. Only by taking a firm hold and lifting one foot, then the other, was I able to reach my destination.

The head abbot of Taktsang greeted me with a refreshing cup of tea and "puffed" rice, the grain popped and swollen by heat, like our popcorn. Then he took me on an inspection tour. Before the altar in the main building, rows of butter lamps burned, but despite their number the room was poorly lighted. A vast image of Buddha loomed out of the darkness.

At the far end, in a separate shrine, stood the likeness of another saint, who bore a striking similarity to Santa Claus, complete with white beard and red cap. Frescoes deco-

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Black Hat Dancers Beneath Death's-heads Enact a Legend of Tyranny and Revenge

This dance tells how a patriot monk assassinated a Tibetan tyrant. The monk escaped by turning his black cloak inside out to show a white lining and riding his soot-blackened pony through a stream (pages 729, 749).

rated the walls. The monastic library, while large, was not remarkable for rare volumes. The greatest treasure was a small book resting in a cubicle by itself. Written alternately in gold and white on a black surface, it aroused my curiosity.

"The gold is real gold, and the white ink is made by crushing into paste the bones of a great lama," the abbot told me.

God of Luck Watches Dice Throw

Exquisite prayer banners, or *thangkas*, hung from the ceiling of the next room; some really fine specimens of temple bells, skull drums, and thunderbolts adorned the altar. Thunderbolts, or *dorjis*, are Bhutan's most significant symbol. Images depicting deities and saints lined the walls. Before App Chungdu, the god of luck, lay a small leather tray with three dice believed to indicate what the future holds in store (page 730).

Most Bhutanese monasteries have these trays holding dice. Earlier at a monastery in Ha Valley, the presiding lama had asked me if I would care to try my luck.

My first throw, five, brought a frown of distress to his face. Not so good, apparently. Again I rolled the three spotted ivories. Eleven! This brought smiles. Evidently it is as good a throw in Bhutan as in Reno!

From Taktsang I went to Dukye Dzong. This fort, reputedly the oldest in Bhutan (since burned down), dominated the trade route between Paro Valley and the town of Phari Dzong in Tibet.

Courtyards, chapels, and paneled rooms resembled those in the dzongs of Paro and Ha, except that much more intricate detail was apparent in wood carvings and pillars. But the really fascinating place was the armory, a vast room piled high

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"Tiger's Nest" Monastery Clings to a Sheer Crag

Monks here showed the author a sacred book whose white ink was made from crushed bones of a departed comrade.

with instruments of war—but the wars of the Middle Ages.

Leather-bound cannon, their surfaces still gleaming and in perfect preservation because of the altitude, stood upended in one corner. Ponderous catapults once used as artillery, racks of bows and arrows, swords, iron helmets, coats of mail, and massive shields—each item had its separate nook.

The Dukye governor handed me a heavy moon-shaped shield. "It's of rhinoceros hide and as tough as steel," he said.

At my look of skepticism he proceeded to prove his point. Placing the shield upright at the far end of the room, he fired at it with a 45-caliber revolver. We found the bullet smashed beyond recognition; the shield was not even dented.

18 Days to India

By late November the weather turned chilly in Ha, to which I had returned. Cold winds swept down the valley, a stinging warning that winter was not far away.

The weeks had passed swiftly, and now it was time for me to leave.

His Highness the Druk Gyalpo had kindly granted me permission to return to India via Wong (Thimbu) Valley and the Buxa Road. Taking 18 days, and walking instead of riding, I found it a far more interesting route than the Chamarchi trail by which I had entered Bhutan (page 728).

The first stage of the journey took me once more to Paro Dzong and to a happy reunion with the Governor of Paro and his bride.

The Governor brought up the subject of shooting, for he is a keen and competent sportsman.

"There is a chance that you will see an elephant on your journey," he said. "If you like, I can lend you my tracker Songsongdo and a high-powered rifle."

I accepted at once. Later, I was to regret this decision.

Paro Dzong, where I had enjoyed so much cordiality and merriment, dropped at last from sight. Topping the 11,650-foot Bela La, I camped that night in a flat grassy plain a mile or two beyond the summit. Next morning, when dawn arose like a saffron curtain, I found myself in the center of an immense panorama.

To the west, in the far distance, stood Kanchenjunga, 28,166 feet high, its snowy mass towering proudly above other great peaks near by. To the north, 23,996-foot Chomo Lhari speared the sky amid a range of Tibetan pinnacles unexplored and even unnamed. To the east, an endless succession of snow-crested mountains and valleys rolled away like gigantic foamy waves. To the south lay a mountainous barrier I had to cross to reach the plains of West Bengal.

That day we reached Tashi Chhō Dzong, an imposing structure, though its narrow width gives a deceptive impression. In the fort is one of Bhutan's biggest monasteries, housing more than 800 monks (page 721).

In the absence of the governor, I was hospitably entertained by the chief abbot. Before I left, he insisted that I accept a gift. At his command monks staggered in with eight loads (640 pounds) of rice. Only after much persuasion could I convince him that two loads would be more than enough for me and my men.

Ambling down the Buxa Road, I was relaxed and carefree—until I reached Chhukha Dzong. There a delegation of local headmen came to meet me with the news that a big elephant had been terrorizing the neighborhood, smashing bridges, and damaging crops.

From what they told me, I gathered it was a rogue elephant, for it made its raids solo and apparently for no other reason than sheer malice.

Hunting a Dangerous Adversary

My knowledge of elephants, as of guns, was strictly limited. The Governor of Paro had given me a book entitled *Big Game and Big Game Rifles*, by John Taylor.* Now I decided it might be a good time to read it. Glancing through, I came upon many disconcerting passages, in particular this brief account:

"I was camped only a few miles away and his boys came running in in a great state, one morning, to tell me that he had been killed by an elephant. Of course, I went along with them; but there was nothing to be done: He had, quite literally, been wiped out of existence—just as a native will wipe out, with a twist of his foot, the mark where he has expectorated. There was nothing to pick up save his boots . . . his belt and his hat; he, himself, had been stamped and squashed and trampled until there was nothing left but a stain on the ground."

Notwithstanding this grim warning, I decided to go after the elephant.

The following morning we left Chhukha before dawn in order to reach by noon the camp being prepared in the elephant's stamping grounds.

There I stopped only long enough to select two local coolies familiar with the district. Together with Songsongdo, the four of us then went down into the forest.

So dense was the undergrowth of brush, tall grass, bamboos, and stinging nettles that

* Published by Herbert Jenkins, Ltd., London, 1948.

Kodachrome by Burt Kerr Todd

Bhutan's Crown Prince and His Bride Display Wedding Silks and Brocades

Governor of Paro when the picture was taken, Jigme Wang-chuk now rules as King. Ashi Kesang-La Dorji, daughter of the Bhutanese Prime Minister, studied in England. She wears Tibetan-style garments.

Incense Fires Greet the Future Queen and Her Retinue

All Bhutan rejoiced at news that the heir to the throne would marry Ashi Kesang-La Dorji. Villagers lined her path as she crossed the mountains from Ha, her ancestral home, to Paro for the ceremony. As a mark of respect, they lit juniper incense fires and set up stands offering food and drink.

Here Jigmie Dorji, Governor of Ha, accompanies his sister over the pass. Although the trail covers only 19 miles, the mountain trip takes all day.

Honor guards wear white shawls denoting rank. For comfort, they carry swords tied up, but let them down before entering a fort.

Personal belongings, including eating utensils, are kept inside the tops of robes and supported by tight sashes. Wide cuffs on sleeves turn down for warmth in Bhutan's chill winter.

Ashi Kesang-La Dorji holds a Tibetan fur hat. Her umbrella bearer, Numgay, one of Ha's brightest school children, follows close behind.

A Queen-to-be, Her Cap of Pearls Glowing in the Morning Sun, Rides to Her Wedding on a Bedecked Pony

Bhutanese subjects, who had not seen a royal marriage for 30 years, flocked into Paro for the wedding festivities. These admiring throngs line the road as Ashi Kesang-La Dorji, assisted by retainers, makes her way to the fort for the rites.

Kodachromes by Burt Kerr Todd

A Rainbow-hued Ribbon, the Bride's Retinue Winds down the Mountain to Paro Dzong

Dancers shaking skull drums, monks beating tom-toms and blowing trumpets, and scores of attendants leading caparisoned ponies and gift-laden mules accompany the bridal procession. Lamas carry religious banners at left.

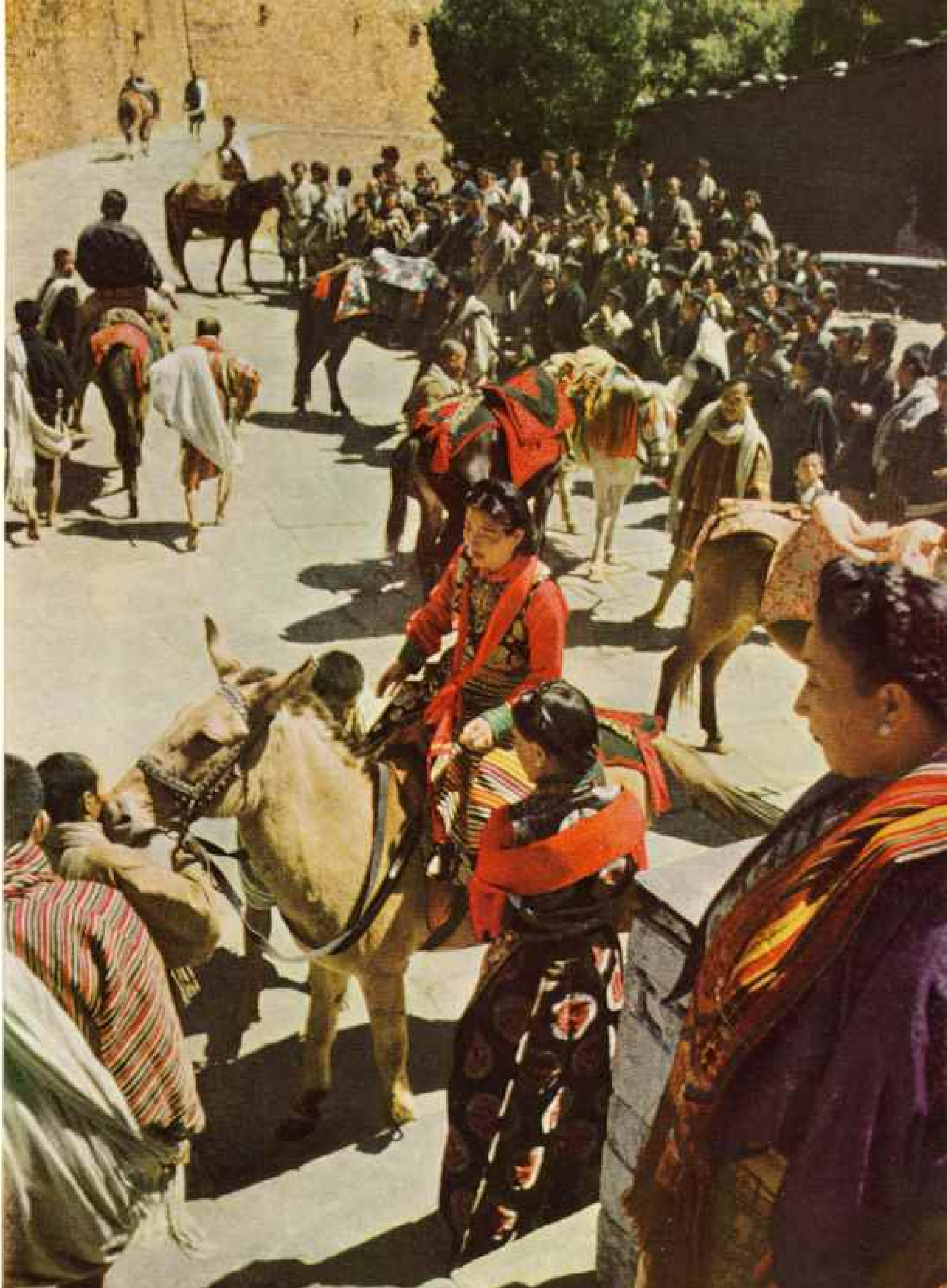
741 Kodachrome by Burt Kerr Todd

Custom in the Himalayas Dictates that Men Ride Uphill but Walk Down

Able craftsmen, the Bhutanese build sturdy forts and houses of stone, mud, and wood. Using no nails, they make dovetailing a fine art. Heavy stones hold shingles on the roofs. Chimneys are unknown.

Ashi Kesang-La Enters Paro Dzong Through Ranks of Guards in Medieval Helmets

Bhutanese greet each other by exchanging white scarves. Here at top of the steps the Queen holds tradition's scarf in welcome to her daughter-in-law. Opposite: Wedding guests take leave. Nearest rider is Tess-La Dorji, wife of Jigmie and daughter of Tsarong Shapé, the "Rockefeller of Tibet." Rani Chuni Dorji faces her.



After a Ceremony Filled with Oriental Splendor, the Royal Wedding Party Assembles Outside Paro Dzong

Dorji Lopon, head lama of Shung Dhatsang, at Punakha, who performed the rites, wears a priestly headdress (second row). At his left sit the bride and groom, Bhutan's Queen (bridegroom's mother), and Rani Chuni Dorji (bride's mother). Other guests fill the row. High Bhutanese officials occupy the front rank; servants and scarlet-robed lamas stand behind. Opposite: A lama presents a scarf to the royal couple on their wedding thrones.

People of Ha Valley Line Up for a Feast

Before going to Paro to be married, Ashi Kesang-La Dorji enjoyed a week of celebrations at Ha Dzong. These villagers prepare to feast in her honor. Children waiting for food ride papoose-style or play quietly on the turf. Red and yellow wedding streamers fly beside the road.

Fingers are all this archer needs to eat his rice, yak meat, pork, chili peppers, and butter. Wherever he goes, he carries his wooden cups for food and tea. He sits cross-legged in Bhutanese style.

Fearsome Deities Stand Guard over a Mountain Pass

Hosts of malignant gods and spirits menace the "thunder people" of Bhutan, according to Lamaist belief. Some are powerful devils who can cause disasters such as earthquakes; some are hobgoblins who bring other kinds of ill luck.

Evil spirits are often depicted as monsters, part human, part beast.

Lamaists, consulting oracles about what the spirits will do, seek to avert harm through gifts and prayers.

Counteracting the demons, benignant gods are supposed to protect each village.

These two deities guard Paro-Ha pass and its nunnery. They wear soldiers' trappings and carry obscure symbols. The one at right holds a heart; the other a shell.

← Burt Kerr Todd, the author, wears formal dress for the royal wedding. Beside him stands an official, the Thimbu Zimpon. Both wear the red sash denoting rank. Without it they could not enter the fort.

Kodachromes by Burt Kerr Todd

Dancers Imitate Leaping Animals as They Entertain Wedding Guests in Paro Valley

High lamas and royalty occupy the tents. Commoners sit in the open; some of them traveled for days over difficult trails.

Masked Dancers Tell the Legends of Old-time Bhutan

Horned beasts with staring eyes and grinning fangs, fierce birds, skeletons, clowns, and grim denizens of the nether world all take part in Bhutan's sacred dances. Masks of cloth and clay represent each character, the dancer looking out through the mask's mouth or nose.

Shrilling flutes, clanging cymbals, and booming trumpets set the tempo. Some dancers whirl at bewildering speed, their long-sleeved robes flying. Others pirouette slowly on one foot.

Most so-called devil dances have religious significance. They drive out demons, portray legends, or describe the terrors of the Lamaist hell.

Left: Lamas from Paro Dzong Monastery wear animal-dance masks. Right: Servants of Paro's Governor dress for the bird dance.

Kodachromes by Burt Kerr Todd

A Silken Canopy Shields Royal Complexions

Under a pavilion emblazoned with Bhutan's dragon (upper right), the honor party watched 12 days of wedding festivities. Dances filled morning and evening, sometimes continued into the night by the light of bonfires. Archery contests entertained in the afternoon.

Here the Governor of Paro, seated beside his bride, jests with Jigmie Dorji (right). Directly at Jigmie's right, Ashi Chodon, the Queen, converses with Rani Chuni Dorji. Ugen-La Dorji leans forward to watch an arrow's flight. The empty chair holds a Western coat belonging to the bride's sister-in-law.

Oranges, raised in Bhutan's lowlands, and other fruits decorate the table. The camera at left came from the United States; it was the author's gift to the bridegroom. Silver-rimmed ash trays are of elephant ivory. Smoking, however, is uncommon in Bhutan.

A guest's servant in striped suit (extreme left) comes from the neighboring State of Sikkim.

Pheasant-feathered Arrows Fly Toward Distant Targets. Archery Is Bhutan's National Sport

Left: Headmen in Ha Valley vie with the Governor's servants. Right: This bowman wears a mustache, but, like many of his countrymen, he plucks out whiskers to avoid shaving.

Kodachromes by Bart Kerr Todd

the only way we could progress was to follow the elephant's path. It was like walking a roller-coaster track—up a tremendous hill, then down into a deep ravine, round hairpin curves, and through tunnels of overhanging branches. A horse could never have made its way where this huge beast had pushed with ease.

Four hours of tracking produced nothing but fatigue. I ordered a return to camp.

As we trudged homeward, our only thoughts were of warm food. Topping a small rise, we could see the path take a horseshoe bend and double back to the right and below us. Between us and the opposite side of the loop a mountain stream rushed down a bouldery bed. Blocking the path on the far side of the stream stood our elephant, seemingly as big as a freight car.

Songsongdo passed me the rifle, five bullets in its clip. I set the range at 100 yards and fired. Dust flew from the elephant's ear. I thought: That's a good shot!

But the elephant was not a good elephant. He didn't fall down; in fact, he didn't do anything except continue to flap his ears.

Throwing the bolt, I fired again and again. Then, what I so feared might happen, did happen. The elephant charged, screaming like a departing ocean liner. And again he didn't play the game. Instead of following the horseshoe-shaped path, he cut across the stream and reached our bank by the time I had used my two remaining shots.

Alone with a Charging Elephant

Turning in desperation, I yelled to Songsongdo for more bullets. Songsongdo was not there. Nobody was there. I was alone! But only for a fraction of a second, for then fear joined me and together we took off, up the hill, down the other side, along the rough path.

A tree was my only hope, and I lunged through the underbrush toward the nearest one. Fortunately it was twined with vines. Fear gave me an extra push, and I was up in its branches quicker than I could say "Songsongdo."

The tree got me out of the elephant's reach but not out of his sight. I looked down and groaned when I saw what my adversary was up to. He was uprooting trees, and mine was squarely in his path. Desperate, as my tree started to crack, I hurled myself through the air toward a branch of an adjacent tree. Miraculously, I caught hold and hung on.

Making my way to a sturdier limb, I thankfully observed that the elephant turned and thrashed off through the shattered forest.

It was at least half an hour before I corralled my two coolies and persuaded Songsongdo to climb down from his perch. At the first sight of the charging elephant he had scrambled up a tremendous tree.

The next day, after much mental turmoil, I forced myself to go into the forest again. To leave a wounded animal, much less a rogue elephant, would be to jeopardize the lives of all the villagers in the area.

The next day from sunrise to sunset I trailed the elephant, firing at him in a gully as he crossed an open space and when I caught fleeting glimpses of him between trees. My nervousness was clearly documented later, on the carcass of the dead elephant. We discovered 38 bullet holes, half of them in his feet and back.

Handed a Pig-in-a-Poke

I resolved then and there that elephant hunting—in fact, all big-game shooting—was not for me. Never again would I place myself in a position where I could be trampled, tossed, or impaled. I even toyed with the idea of avoiding zoos and circuses. I simply wanted no more big game.

Diligently I stuck to my resolution for the next two days. Not once did I leave the path for the dangers of the forest. The third day, however, we discovered that we had no more meat. The forests round about were alive with *kasha* (small deer). Since we now were out of the elephant area, I went hunting.

Leaving Songsongdo behind, I took a young boy and went out again into the jungle. We found fresh signs but no deer. Finally, after three hours of tracking, we came to a piece of open ground dotted with bushes. The boy suddenly stopped and pointed to one particular bush 50 feet away.

"*Pha! Pha!*" he whispered. *Pha* means "there" in Bhutanese, but I thought he said *phap*, which means "a small pig." Small pig signified to me pork chops, ham, and bacon—just what I wanted. I looked at the black patch he indicated, swung up my rifle and fired.

But what had I hit? Out of that bush, snorting and screaming, came the biggest, blackest, maddest Himalayan bear I ever saw. He appeared to be wounded in no more vital spot than his tail.

"*Thom* (bear)!" yelled the boy.

← **Moppets Eager for Gifts of Candy Besiege an Oriental Princess**

Youngsters everywhere have a sweet tooth, as Ashi Kesang-La (center) discovers when she hands out rock candy to school children. With her mother, Rani Chumi Dorji, Ashi Kesang-La stands beside a guesthouse in Ha. A jeweled charm box hangs from her neck. The boys wear trousers, an unusual sight in Bhutan.

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High above Ha Valley, the Author Watches for a Deer's Startled Flight

Although Bhutan abounds in game, few people hunt, owing to Buddhist dislike for taking life. Here Mr. Todd holds a 9-mm. Mauser ready while beaters drive deer toward him. Later the hunter became the hunted. A wild elephant, enraged by the sting of small bullets, charged and treed him (page 736).

What I exclaimed is best unrecorded. So—we were off again, down the bed of a stream, up over its bank, along the steep side of a hill, dodging in and out among the trees. I didn't even dare turn my head to see if the bear was still following. At last I had no more wind to run on. I looked back. The bear was nowhere to be seen.

Sitting before my fire that evening, I imagined I saw in its glowing embers the frowning face of the lama of the Ha Valley monastery. I recalled my unlucky first throw at dice. When I swore a new resolution that night to shun big-game shooting, I included throwing dice for good measure.

Days later we reached the last pass on the Buxa Road. Before us, under a blanket of warm blue haze, stretched the plains of West Bengal. I could see Jaigaon, my destination, and not far from it the smoke from a tea factory's chimney spiraling lazily into the still air.

The bazaar at Jaigaon was thronged with transport coolies, laden mules, trucks, and bullock carts bringing produce up from India. My jeep, sent from Kalimpong, was ready. As we pulled away, I turned and waved farewell to my men.

Standing apart, reserved and smiling, away from the bustle and hurried life of the bazaar, they seemed to symbolize their country and its people.

La Jolla, a Gem of the California Coast

To Its 10,000 Inhabitants and Myriads of Visitors, This Sunny Corner of the Golden State Is Paradise on the Pacific

By Deena Clark

With Illustrations by National Geographic Photographer J. Baylor Roberts

THE TOWN of La Jolla shimmers like a gem in the sun on the southern California coast. No one knows for sure the origin of its name, but the most popular theory holds that it comes from *la joya*, "the jewel" in Spanish.

La Jolla (pronounced "La Hoya") is my home town, but I am not the only one to think there's no place like it. Vacationists from other States say they would like to take it over, and Californians speak of it with all the pride of a parent.

Actually, the town lies within the city limits of San Diego, just over 10 scenic miles from the heart of its busy Broadway (see the new Pacific Ocean map, a supplement to this issue). Yet this is a resort and residential community complete within its own turquoise and emerald setting. It has its own distinct personality, its own churches and schools, and a hard-fought-for La Jolla postmark that is the prized official seal of its individuality.

Sea and Mountain Form Its Setting

Because we wanted our 6-year-old daughter, Niki, to savor some of the joys of childhood in this favored spot, my husband Blake and I planned a summer there. After a 3,000-mile cross-continent drive from Washington, D. C., we came upon a panorama of concentrated beauty.

Approaching from the north by the winding Scripps Grade, we saw below us miles of cove-indented rocky coast. A ribbon of boulevard, with Spanish-style homes clustered on either side, followed the foamy shore line.

From white sandy beaches, dwellings of pale-tinted stucco and burnished redwood swept in two-mile-wide scallops up the slopes of Mount Soledad, 822-foot brownish-green backdrop for the town (page 762). Eucalyptus trees, peppers, and palms rose in verdant bursts above the colorful tile-topped buildings of the business district.

As we looked down on sea and mountain merging in early-morning mist, Niki spoke from the wisdom gained by her first motor trip across America: "Whoever made this piece of the country was certainly an expert!"

The 10,000 people who live here permanently and the myriads of visitors every year agree wholeheartedly. The town not only looks good—it *feels* good. The thermometer, ranging within near-ideal limits, averages 70° in the year's warmest month (August), 55° in the coolest month (January).

Flowers bloom the year round, Easter daffodils nodding in the shade of Christmas poinsettias. Said National Geographic staff photographer J. Baylor Roberts, from Virginia: "La Jollans aren't satisfied with any bush that doesn't bloom twice a year for six months at a time!"

Because of its consistent climate, this resort is not doomed to summer boom and winter hibernation. From June to October it is hostess to sun-baked refugees from southwestern States. From December to April easterners flock in to escape icy blasts.

Many of the visitors own their own homes here, returning year after year to take an active part in community life. A public-spirited Town Council is dedicated to keeping the place free from any tawdriness.

Among its neighbors the town has a reputation for wealth. One resident told me of going to San Jose to see her daughter. When she drove into a service station, the owner asked, "How about selling you a car?"

"Oh," she said, "I'm not from San Jose; I'm from La Jolla."

"In that case," replied the garageman, "how about selling you *two* cars?"

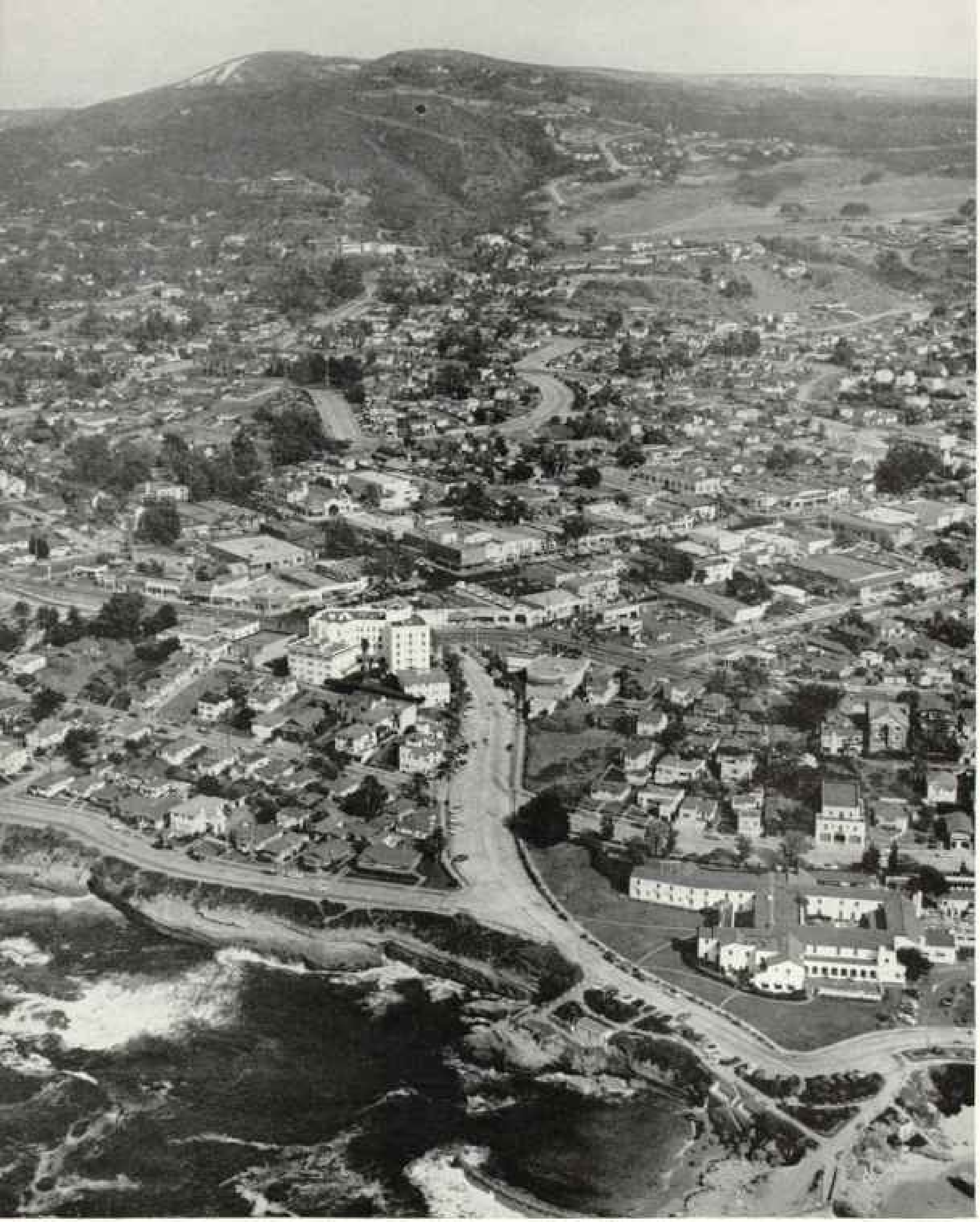
Here Many a Traveler Settles Down

La Jolla does have more than its share of millionaires. At last count there were 63 permanent residents with an individual net worth of more than $1,000,000.

But there is little ostentation. A spirit of neighborliness pervades the village. Cadillacs and broken-down jalopies with surfboards tied on their sagging tops park side by side in happy democracy. La Jollans say their town lacks only two things—snow and snobbishness.

Many who choose the town's leisurely way of life are notably well traveled. A workman replacing an electric switch at one of the leading stores was heard to answer a summer visitor with, "Well, I can't really say. I was never in Bangkok for more than three days."

Residents are well read, too. Bookstores outnumber movie theaters four to one.



Ocean and Mountain Embrace La Jolla, California's Jewel City

Permanent home of 10,000 people, the town lies 10 miles northwest of the heart of San Diego, of which it is a part. Mild winters and cool summers lure visitors the year round. Scarcely a day sees no sunshine, and flowers bloom every month. Sixty-six years ago the townsite stood vacant save for sagebrush and wild flowers.

Today luxurious new homes and winding roads push up the slopes of Mount Soledad (page 762). The main attraction of the place, however, remains its six miles of ocean frontage. Surf pounds eternally against beaches and cliffs.

This air view shows the sheltering tip of the Children's Pool breakwater (pages 764–5). Shell Beach lies submerged (pages 764, 768). Coast Boulevard leads to Los Angeles (toward left) and San Diego and Mexico (right).

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Dr. Seuss, Creator of Comic Monsters, Enjoys a 70-mile View from His Hilltop Studio

Theodor Geisel takes his nom de plume from his middle name, Seuss. As an illustrator, he is noted for his grotesque insects and dragons. He has written such works as *Horton Hatches the Egg* and *The 500 Hats of Bartholomew Cubbins*. Dr. Seuss is shown illustrating a children's book to be published next spring (page 760).

"And," said Mail Superintendent Joe Hinds, accusingly, "every single month each hard-working postman delivers a stack of NATIONAL GEOGRAPHICS three to four feet high!" (page 771).

A goodly portion of those who add to the town's sophisticated simplicity are former service men and their families. Twenty-six retired admirals or generals and more than a hundred of lesser rank have chosen La Jolla after ample opportunity to see the world.

Windows Frame Seascape Masterpieces

Like most of the dwellings of the village, the house we found for our summer sojourn was complete with patio and fish pond. Fire-cracker flowers burst in crackly red blossoms at the lawn border. A billowing plumbago shrub unfurled pale-blue blossoms like a suspended silken parachute over our side arbor. The view from our living room was a constantly changing, light-struck canvas of Torrey Pines Bluffs and La Jolla Shores.

The back garden was agleam with slender-stemmed lily-of-the-Nile, which cast purple reflections into the pool. Niki ate oranges off our own tree and made dolls of the fuchsia blossoms that were like dainty ballerinas in their pink and purple ruffled skirts.

We had hardly moved in when 7-year-old Ricky Eilers, with La Jollalike friendliness, paid us a neighborly call. He made a bona-

fide daughter of the Golden West out of Niki in no time. They were forty-niners the first morning. The garden soil became gold dust. Niki went around with her pockets full of rocks, as precious to her as if they were actually nuggets.

"Let's play stagecoach," I heard Ricky suggest.

"With robbers?" asked Niki.

"Oh, no," replied Ricky in his western drawl. "Bad *hombres!*"

Down to the Sea in Swim Suits

The Eiffel Tower means Paris; the Empire State Building is the trademark of New York; and La Jolla's symbol is appropriately a gift of Nature, the Cove. Guarding it is the massive promontory called Alligator Head, its flat snout resting in the sea.

Ocean-carved boulders form steppingstones to a terraced rock whose clean green strips of sea grass make a perfect diving ledge. Goldfish scattered as I plunged down and clutched a handful of sand to prove I had really reached the bottom.

My dive took me down a dozen feet, but Niki's Cove conduct took me back in time twice that many years. Together we tried to catch the sculpins that darted like moving pebbles across the shallows of a tide pool. Niki discovered "kelp babies," brown antlered buoys that wash ashore from their underwater forests.

In midsummer the Cove sparkles with excitement as the scene of the nationally known one-mile Rough Water Swim (pages 778-9).

Other beaches besides the Cove add their notes to the symphony that is La Jolla's surf. Each one sounds its special tones. The sea's voice is most sonorous at Boomer Beach, where huge combers crash against black rocks with a voice that can be heard for miles. Whispering Sands calls in more gentle but equally alluring tones.

Unusual is the visitor who does not fall victim to the collecting urge at Shell Beach. Each wave adds to its treasure spreads of volcano-like "Chinese hats," pink-tipped "rose petals," alabaster "cup and saucers," and rare ridged "coffee beans."

Right across the street and straight down the cliff from our house was Rocky Beach, the most mysterious and fascinating of all to us. It was accessible only by Devil's Slide, weathered bluffs to which a hundred rickety, splintery steps have clung for years.

Low tide exposed clusters of star-bright mussels, glistening like bouquets of purple sea flowers on the shiny wet ledges. On the sandy floors of the tide pools, tiny minnows cast their shadows, like photographic negatives of the original little fish.

A favorite dry land rendezvous is a palm-shaded, patio-cool mecca, the public library. It is even possible to trace a missing person by calling the desk.

As Niki settled down in my former place at one of the low, round reading tables, I overheard one of the assistants at the telephone: "Oh, yes, I can tell you how to reach her. She is not in the book; she lives with her sister. I know that because her son is a good friend of my son's."

A trip downtown is a social event. You stop and chat with such people as the telegraph agent, a real friend to those to whom he telephones messages. He prefaces bad news with, "I'm sorry to have to ask you to prepare yourself for a shock," and good news with, "I want to be the first to congratulate you."

With true small-town neighborliness, the shoe repairman advised me against ordering half soles for a pair of pumps. "You have another good month's wear in these," he told me as he turned the shoes over in hands as gnarled as the near-by Torrey pines.

A leather-aproned locksmith gave me a complete course in his intricate art as he made me an extra car key.

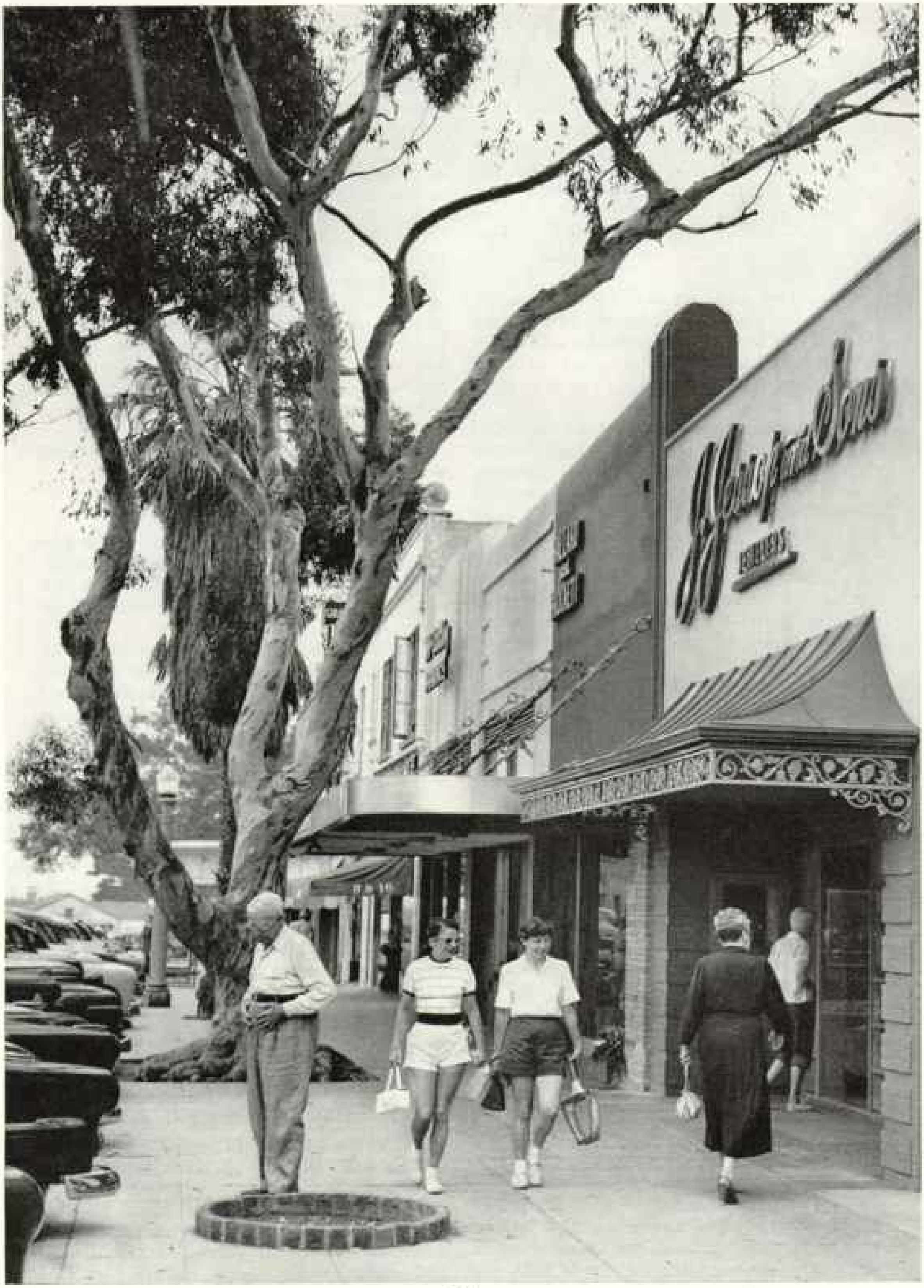
Shoppers Find Exotic Treasures

Showplace shops reflect the taste of the village. One contains an exquisite collection of lamps in delicate hand-blown Venetian glass, Bohemian gold overlay, and treasures from Meissen and Dresden. Soft Hawaiian music fills another, a place of pearly-white shell leis, ginger-patterned play suits, and handsome trays of polished koa wood.

A fancy-food shop carries no staples—just "personality foods," in endless variety. You can go around the world on the bright labels that adorn the treats—delicate smoked oysters from Japan, pumpkin-seed kernels from Mexico, hearts of palm from Brazil. A connoisseur salesman with a rich brogue insisted on our trying a can of Irish oatmeal. "Rrreferrrred to," he rolled out, "in my homeland as 'stirabout.' "

Even the chain stores have their special treasures. Markets gleam with topaz jars of pure honey garnered from the flowers of California's citrus orchards; waxy orange blossoms glimmer in the amber liquid.

When we discovered the popular pet shop on La Jolla Boulevard, Niki's fancy passed over both the $1,000 scarlet macaw in the window and the $2,000 white sulphur-crested cockatoo kept under glass. A "piggy-bank-sized" emerald parrot from Mexico won her heart (page 761). From then on, the whole summer, her pockets bulged with sunflower seeds.



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Shirt Sleeves, Shorts, Jeans, or Dress—Downtown Shoppers Wear Whatever They Like

La Jolla's residents take advantage of every buying tour to stop and chat with old friends. Fragrant eucalyptus trees and shaggy palms grow out of sidewalks on fashionable Girard Avenue.

An example of La Jolla's warm-hearted civic mindedness is Gillispie Cottage, where less privileged children, principally those from broken homes, are given loving care in cheerful, homelike surroundings. In a new building, just completed, a dozen little ones live and some 25 others receive day care.

Named in honor of Dr. Samuel T. Gillispie, the town's beloved pioneer physician, the Cottage is the product of the good will of the entire community.

Little Mrs. Gillispie took me on a tour of the Welfare Shop, which largely finances the Cottage. It looked like La Jolla's attic. Antique beaded bags, feather boas, racks of shoes, and baskets piled with ticking clocks made a cozy confusion.

Merchants and townspeople send outmoded or discarded goods, which are snapped up by eager buyers. Thirty-five cents may purchase a dress; a nickel, a tie. During the previous month the shop, open only three days a week and staffed by volunteers, netted $999.02.

J. Edgar Hoover, Director of the F.B.I., who spends his vacations in La Jolla, takes a special interest in the cottagers. For Christmas last year he sent the children warm sweaters and—perhaps even more treasured—his personal card.

"If more communities had Gillispie Cottages," he says, "they would do the country a great service."

Houses Hang from Ocean Cliffs

Homes here employ about every type of building material, from mud to glass.

My father built the town's first adobe house. As a child, I remember helping the workmen spread straw into the mixture and set the square molds on the next-door vacant lot to dry. Last summer we counted scores of low-slung ranch-type homes and balconied Monterey haciendas made of the same type of sun-baked squares.

Side by side with the Spanish-flavored homes are tile-topped Italian villas, Norman estates, and Hawaiianlike houses with sliding partitions and graceful, slanting eaves. Startling architectural marvels in "pure La Jolla" are dwellings that hang like circus daredevils from cliffs high above the ocean.

A drive through fashionable Country Club Heights, Muirlands, La Jolla Shores, and the two Hermosa sections is an architectural tour in Technicolor. Green stucco is frosted with lacy New Orleans-type hand-wrought columns. Garden paths are paved with iridescent hand-gathered shells.

The one common denominator of the town's homes is good taste. Blueprints must be approved by the Planning Council, whether you expect to spend $15,000 or $200,000 for a home. The Council operates on a sort of "Do unto others" policing policy. For instance, no builder is allowed to put a house with a rock-gravel roof on the slopes of Country Club Heights; the glare might be objectionable to his neighbor above.

The individuality of the residents is reflected in their homes. Mrs. Herbert Pratt spent several nights in a sleeping bag, testing panorama angles on the three-acre site of her future home. Her husband and their architect built a movable floor-height platform for her so that she could choose the best vantage point to watch the drama of sunrise, sunset, and waves rolling in on the beach far below. Not until scores of such "view samplings" had been taken did they drive the foundation stakes.

Another masterpiece of a house has solid walls of glass on three exposures.

Key to the Town's Charm—Its People

As intriguing as the homes are those who live in them. Many of the town's cosmopolitan citizens are internationally famous in art, music, science, or sport. More than 50 are listed in *Who's Who*.

Edith S. Clements has written and illustrated classic guidebooks on the beautiful and striking wild flowers of the coast, sierra, and desert, as well as articles for the National Geographic Magazine.*

Dr. Anita Figueredo, mother of six children, is a leader in the fight against cancer.

Patricia Canning Todd, former national women's indoor tennis singles champion, travels to England, France, the Netherlands, India, and Japan, but always returns.

A prominent citizen is the celebrated writer and illustrator Theodor Seuss Geisel, beloved as a modern Lewis Carroll. He is known as "Dr. Seuss" to his fans, old and young, who treasure his gems of imaginative humor (page 757).

When I asked Dr. Seuss if he had any children of his own, he answered, "No. I have a slogan: 'You have 'em, and I'll amuse 'em!'" He does, too, to the tune of thousands of copies of his books and records a year. His "Gerald McBoing-Boing" won the 1950 award of the Academy of Motion Picture Arts and Sciences as the best movie cartoon.

Mrs. Charles Calloway's magnificent begonia greenhouse on Torrey Pines Road is widely known. Beside a 3-foot-tall stalk from which showered rosy petals, Mrs. Calloway and I talked of her mother, the late Mrs. Eva Kenworthy Gray, called "our grand lady of

*See, in the National Geographic Magazine: "Flower Pageant of the Midwest," by Edith S. and Frederic E. Clements, August, 1939; and "Wild Flowers of the West," by Edith S. Clements, May, 1927.

Author and Daughter in Mexican Costumes Visit "Ramona's Marriage Place"

Casa de Estudillo, built about 1825, is now a museum. Ramona, heroine of Helen Hunt Jackson's novel, married her Indian sweetheart in the candlelit chapel. Pumpkin, Nild's pet parrot, perches on her finger.

Kodachrome by National Geographic Photographer J. Baylor Roberts

La Jolla, Embowered in Trees, Fronts the Pacific Below These Riders on the Slopes of Mount Soledad

In 1886 the townsite was a sun-bleached expanse of sagebrush and mesquite. Founding fathers planted 2,000 trees; newcomers followed their example. Mount Soledad, 822 feet high, stands guard over the city. Riders belong to the local Junior Bridle Paths Association.

An Artist Fashions Replicas of Strange Sea Dwellers

Scientists of the Scripps Institution of Oceanography at La Jolla pursue a broad program of marine research. They record the ocean's temperature, composition, and behavior, chart its underwater mountains and valleys, and study its inhabitants.

Newspaper publisher E. W. Scripps and his sister, Ellen Browning Scripps, endowed the research institution from 1903 to 1912. Administered by the University of California, it is the Nation's oldest oceanographic institution.

Replicas of many startling sea creatures are displayed at the establishment's Thomas Wayland Vaughan Aquarium-Museum. Among them are scale models of organisms smaller than a grain of sand.

Miss Judith Horton, a staff member, makes realistic models from transparent plastic rods (background) and shiny nylon bristles (on table). Here she adds the finishing touches to a copepod, a tiny crustacean. The small machine powers an abrasive wheel.

Enhancement by National Geographic Photographer J. Baylor Roberts

Mothers Lounge on the Sand While Youngsters Frolic in Children's Pool

A massive breakwater (out of sight to left) protects the municipal beach from heavy surf. Shell Beach (background) faces a gull-dotted rock. A picnickers' shelter clings to the cliff.

Hotels and Homes Gleaming in the Sun Enjoy a Magnificent View of Sea and Sky

Twin palms frame the tower of La Valencia Hotel (background). Its glassed-in Sky Room looks down on wooded Ellen Scripps Park.

© National Geographic Society

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A Water Sprite Skims the Waves on a Narrow Sea Ski

Pacific waters here are ideal for skiing, aquaplaning, surfboard riding, deep-sea fishing, and surf casting. British-born Mia Macklin Victor (shown above and below) depends only on a hand-clasped rope and one narrow ski to keep her balance.

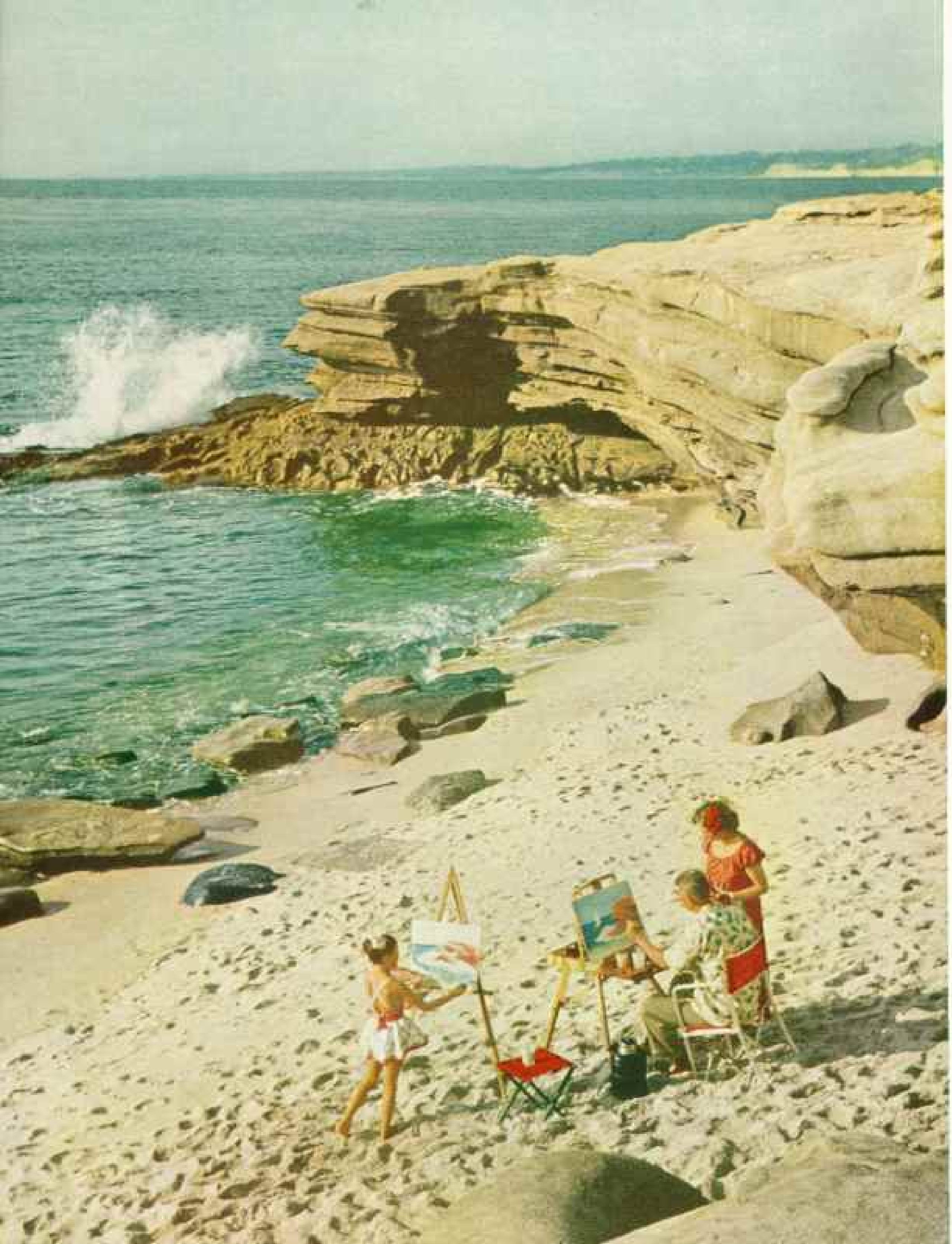
Cisco, a Pet Parrot, Tries to Nip the Hand That Feeds Him

La Jolla boasts: "This is a splendid place for elderly people and their parents." The saying neglects to mention progressive young townspeople, of whom Mr. and Mrs. John A. Victor, Jr., are examples. Both are active in civic enterprises.

Kodachromes by National Geographic Photographer J. Baylor Roberts

Guests Loll in the Sun and Sip Cool Drinks Beside the Victor Swimming Pool

Smiling weather enables residents to do much of their entertaining outdoors. Pool and patio parties, barbecues, and abalone fries are popular. This pool was excavated from the rock-bound coast.



768 Kodachrome by National Geographic Photographer J. Baylor Roberts

Father and Daughter Paint an Eroded Ledge Jutting into the Sea from Shell Beach

The town's setting attracts many artists. Challenging marine and mountain scenes lie at its doorstep, and snow fields stand only two hours away. Mrs. Jean Martin, an artist, here instructs Niki and Blake Clark.

the begonias" by the American Begonia Society. She introduced dozens of crosses of the flower, producing *Jannei* when she was 87 years old.

These are only a few of the personalities who put flavor into the town. Even those who are complete strangers to you have their charm. The teen-agers who stride through the town in beach togs are clothed in tans so deep that even in their bareness they seem fully covered up. On the beach, with frog-like "swim fins" and plate-sized, face-covering diving glasses, they make you certain that the place has developed a new race of amphibious children, at home in the sea as well as on land.

Busy Brushes Paint the Changing Scenes

The surroundings bring out the artist in everyone, and Niki and Blake were no exceptions. They took lessons from Jean Martin and brought home brilliant, splashy temperas of sunset and shadows on the sea, and white waves crashing against brown cliffs (opposite page).

Mrs. Martin, who sold 63 canvases one year, although she says she paints "just for fun," has been for years a guiding light in the 33-year-old La Jolla Art Association. Its autumn exhibit rustles with canvases that have captured the red and gold of "the back country" near Julian. The winter show brings snow scenes from Cuyamaca Peak. In April all the artists flock to the desert at Borrego Springs to capture the blooming cactus and ground flowers that carpet the dunes.

A favorite subject for artists is that Nature-sculptured landmark, the La Jolla Caves. Thousands of years of ceaseless work with the inexorable chisels of wave and tide were spent in carving this masterpiece of seven vaults from the sandstone cliffs (page 780).

As a child, I liked to believe the legend that the caves were made by the mighty blows of an Indian chief, wrathful at being denied the hand of a lovely princess. That would be hard to prove, but I do know that it was a German geologist, Dr. Gustav Schultz, who first revealed to the public the beauty that lay inside.

The professor worked with a pick and shovel for more than a year to dig a passageway from the cliffs above into Sunny Jim, most spectacular of the caverns. Early visitors, some 50 years ago, slid down to the depths on a knotted rope, but today's tourists—300 strong on a summer's day—descend by 134 well-lighted wooden steps.

On the way down, the rock walls glow with natural colors, red from iron oxide, and grays and yellows from vegetable deposits. Narrow bands of crystallized salts run through the sandstone like marbleized ribbons. From the wave-splashed rocks which form the floor, beady-eyed and bubbling crabs stare as if asking how you dared to disturb them.

Untold thousands of movie-goers, without knowing it, have already beheld the majestic splendor of Sunny Jim, which can be made weird and eerie for theatrical purposes. Scenes for the *Count of Monte Cristo* and other Hollywood productions of derring-do were filmed under its vaulted arches.

Just as this place inspires the artist with brush and camera, it seems to call forth good music and a love for hearing it. Through the efforts of the Musical Arts Society of La Jolla, the high school auditorium, on summer Sundays, resounds to the finest of orchestral works under the baton of Nikolai Sokoloff, former director of the Cleveland Symphony orchestra. As musical director of the Society, Mr. Sokoloff has assembled an outstanding group of artists.

With the solid encouragement of music patron Augustus L. Searle and the Advisory Board, the Musical Arts Society commissions new compositions by talented composers.

When Blake and I called on Mr. Sokoloff and his wife, herself a musical authority and editor, we saw the original score of "Sinfonietta La Jolla," by the world-famous Czech-American, Bohuslav Martinu—"a captivating tone picture of the most captivating place on the California coast," says Mr. Sokoloff.

Drama lovers, too, find stimulation here. The La Jolla Playhouse presents top stage and screen stars in outstanding dramatic hits almost as soon as they are played on Broadway. In six seasons, producers Dorothy McGuire, Mel Ferrer, and Gregory Peck, who was raised here, have offered such triumphs as *Night Must Fall*, *Angel Street*, and *The Cocktail Party*.

Tree Grows Through Store Roof

The famous Green Dragon Colony clings to the town's past as solidly as it cleaves to its majestic cliffs. It was founded in 1894 by Fräulein Anna Held, a pioneer in kindergarten work in America and an accomplished concert pianist (not to be confused with the French Anna Held). Her music and warm friendliness were like a magnet to the world's writers, sculptors, poets, and musicians.

A cluster of guest cottages soon sprang up to house celebrities like actress Helena Modjeska and the singer-composer Charles Wakefield Cadman. The concert artist Max Heinrich heard Anna play, was entranced, and married her.

Today's dwellers in the Green Dragon Colony carry on the tradition of artistry. Owner Jack Mosher, retired industrialist, plays im-

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Each Homeowner in the Heights Claims His View Is Best. Sunrise, Sunset, Clouds, and Surf Provide Eternal Drama

The Charles E. Klappert residence on Hillside Drive looks down on Spindrift Beach and the Scripps Oceanography pier.

← Postal Clerks Sort Copies of the NATIONAL GEOGRAPHIC

There is cause to wonder what the mail-laden postman must think each month as The Magazine's delivery date comes around. Owing to its high-quality coated paper, the average copy weighs 14 ounces. Last September's issue (shown), with The Society's map of the Far East inserted, weighed two ounces more. La Jolla got 587 copies. They made a stack 21 feet high (page 757).

→ Scientists of the Scripps Institution of Oceanography take the Pacific's temperature three times a day. Readings aid research in tides, currents, waves, and fish productivity. The United States Navy, cooperating, occasionally provides a helicopter, which, hovering above the surface, takes quick readings across a wide area.

This view includes the helicopter's tire and tail assembly on the Scripps pier. Lt. Harry Snodden, a Navy pilot, and Dr. Carl Hubbs wear dye markers to stain the water an attention-calling green in event they are forced down at sea. Dr. Hubbs carries a coil of cable and a casting thermometer for taking measurements in heavy surf. An authority on whales, he watches many of the 600 passing through La Jolla waters each season (page 772).

portant roles in the summer Playhouse. His wife is the lyric soprano Alice Forsyth Mosher. To their architect son, Robert, went the task of preserving the historical aspects and at the same time creating a new colony of modern shops.

When blueprints called for the removal of a towering eucalyptus to make way for a stationer's store, Mr. Mosher objected vociferously.

"But the tree's right in the way of the foundation," protested his son.

"Then you can't build the shop," snapped the dedicated senior Mosher.

Today the crown of the mighty tree thrusts through a "sway opening" in the roof of the store. Architect Mosher's ingenious device of expanding steel bands and heavy canvas stripping keeps customers from getting wet when it rains.

Research as Ceaseless as the Sea

Dramatically cutting into the sea view from our living-room window, a solid black horizontal line thrust itself into the ocean—the pier of the University of California's Scripps Institution of Oceanography. Scientists there investigate everything pertaining to the sea—its composition, behavior, inhabitants, and its relation to man—as well as the earth which borders it, the air above, and the land beneath.

Dr. Roger R. Revelle, director, is enthusiastically attacking a universal problem. His ambition is to "unlock the door of the world's least used and greatest food storehouse, the ocean."

Niki visualized the "Doctors" at the Institution as being white-coated and stethoscope-garlanded—an idea that seems quite logical when you consider that they take and record the ocean's temperature three times a day, chart its circulation, and observe it as if it were a valued patient about whom they were determined to know everything (page 771).

The Institution keeps five large research vessels constantly at sea, in voyages ranging from Alaska to Peru, from the Marshall Islands to Baja California.

Also trying to answer the riddles of the sea are foreign students from almost every country that borders an ocean.

With its technical library of more than 24,000 volumes, Scripps is one of the few places in the world where work leading to a Ph.D. in oceanography is offered. Conrad Limbaugh, working toward a doctor's degree, was studying the relationship between fish and the moving forests of seaweed in which they live. To gather material, he put on swimming trunks, strapped an air tank on his back, and announced, "Well, I'm off for a hike through the kelp beds!"

Commercial kelp gatherers, using underwater mowers, cut the canopy of the beds. From the jagged brown leaves they obtain, among other things, alginic acid, which prevents the formation of crystals in everything from paint to party food. Two-thirds of the ice cream produced in America has La Jolla's kelp beds to thank for its creamy smoothness, I was told.

The Scripps campus boasts a high density of distinguished personalities. Dr. Carl Hubbs is well known for his work on Pacific whales. Six hundred or more of the gray mammals are counted as they swim past La Jolla in a season, and many are scrutinized minutely by Dr. Hubbs with 70-pound 7-inch-lens binoculars. Even when they migrate by moonlight, they do not escape him.

Dr. Claude E. ZoBell, marine microbiologist, has just discovered that some of the smallest living things in the world—bacteria—make their home 33,000 feet under the sea. He is conducting experiments six miles deep to study the effects of water pressures on living organisms.

Sam Hinton, curator of the Institution's new Thomas Wayland Vaughan Aquarium-Museum, is also a radio singer of folk ballads. The Folklore Section of the Music Division of the Library of Congress contains a number of recordings of ballads collected and sung by him.

Mr. Hinton's young daughter gave us a guided lecture on "Daddy's aquarium," pointing out each inmate with the pride of personal ownership. "Here's Myrtle, our loggerhead turtle . . . and Henrietta, formerly Henry, until Daddy made an inspection tour!"

Surfers Ride 20-foot Waves

A few miles down the rugged coast line we found another group of young men who conduct their own "wave study." They are members of the Windansea Surfing Club. Limited to 18 in number, they are bound together by high skill and a love of the sport that exhilarated the ancient Hawaiian kings at Waikiki.

Here a stretch of beach and sea has been set aside for surfboarders, providing a wide expanse of first-rate gliding area. The regular 10-foot summer waves move shoreward in steady swells. Some of the higher swells are caused by storms in the Southern Hemisphere, and the boys cut diagonally across the slope of watery peaks whose energy originated a thousand miles or more to the west.

Often the surfers master 20-footers, racing a smooth 500 yards inside the green-glass curl of the solid waves.

The sand talk of the young athletes is vivid. A good wave is a "smoke house," or

Kodachrome by National Geographic Photographer J. Baylor Roberts

Niki Rides an Antique Bicycle at Junipero Serra Museum; Mother Wears Period Costume

The museum lies in San Diego's Presidio Park near the site of the first Spanish mission in California. Niki, in ruffled pantaloons, mounts a relic of California's early days.

No One Minds Seeing Double When the Farnham Twins Swim

Merwyn Daynes, swimming coach at the La Jolla Beach and Tennis Club, is widely known as the man who introduced rhythm swimming, graceful water ballets set to music.

Mr. Daynes's first performers were his own daughters, Verna and June, the original Aquabelles. Later the coach staged lavish water shows in Los Angeles and Chicago. Hollywood has employed him as water choreographer for a number of films, among them Esther Williams's "Bathing Beauty."

Under his tutelage a team of eight local mermaids recently won the Pacific coast championship in rhythm swimming. The girls frequently give exhibitions at the Beach and Tennis Club (opposite).

← Daynes instructs Jackie and Bobby Farnham, identical twins.

↓ The twins swim in such perfect unison that they seem to be one girl and her mirrored image.

773 Kodachromed by National Geographic Photographer J. Baylor Roberts

Families Bathe in Sun and Surf at the Luxurious Beach and Tennis Club

Here, summer and winter, members and guests enjoy golf, tennis, and swimming. Apartments and other buildings line Spindrift, the club's beach. Seahorses decorate back-rest boards and the club pennant (upper right).

Teen-age Hopefuls at the Beach and Tennis Club Get a Lesson from a Former Champion, Lester Stoefen

Mr. Stoefen, famed for his cannon-ball service, teamed with George Lott to win the United States (1933-34) and Wimbledon (1934) doubles titles. Now a professional, he is the club's court director. Using finger instead of racket, he here shows how to impart top spin, slice, undercut, reverse, and flat effects to the balls.

Donal Hord (Center) Lends a Helping Hand to a Student Sculptor at the Art Center

La Jolla's multipurpose Art Center is housed in the former home of Ellen Browning Scripps, a mansion purchased with funds contributed by citizens. Today the Center contains spacious galleries, an auditorium, artists' studios, ceramic kilns, and a darkroom for the camera club.

Sculptor Hord, who teaches at the Center, has created major works in clay, wood, volcanic glass, and granite, but he is best known for jade. From the green gem he recently fashioned a 160-pound statue of a Chinese princess of the Tang dynasty. He believes that statue to be the world's largest in jade.

Here the artist assists with a clay figure. The model poses at right.

Kodachromes by National Geographic Photographer J. Baylor Roberts

Contestants Dash for the Surf at the Start of La Jolla's Rough Water Swim

Swimming clubs throughout California enter their champions in this rugged race, which is held each summer over a one-mile course. The contest begins and ends at the Cove, a sheltered beach. Here 75 young men open the 20th annual swim. Some of 9,000 spectators line the shore.

➢ Young Anne Johnston accepts a trophy for the 100-yard junior swim.

➢ The women's race drew 22 entries. These contestants flounder toward the finish line as lifeguards on paddleboards patrol the tricky course. Florence Chadwick, only woman to swim the English Channel both ways, won this event four times.

Kodachromes by National Geographic Photographer J. Baylor Roberts

Cormorants Perch on the Sheer Sandstone Cliffs above the Seven Caves

Pounding waves undercut the cliffs with deep caverns, some 50 feet high. Sight-seers enter the largest by tunneled steps cut from above. Here folds of rock screen sea entrances. Rocky Beach lies in the background.

a "smoker." At the treacherous shore break you are likely to "pearl," meaning dive for the sandy bottom. You take a "pounding in a boiler" when a churning wave breaks over your board. One surfer emerged from a wall of water that had completely engulfed him and complained loudly, "Somebody lowered the shade!"

Men Ride the Updrafts Like Gulls

As some La Jollans attempt to conquer the sea, others set their sights skyward. Glider pilots perform a few miles north of the town at Torrey Pines gliderport.

Slope and soaring conditions are excellent. The prevailing wind from the Pacific strikes the 200-foot cliff, deflects the air upward, and carries the planes parallel to the bluff, 150 feet above it and 60 feet oceanward. The pilots soar on the updraft, just as the sea gulls do, and many a canny young man studies the white and gray birds before he takes off. Flights as far as 41 miles inland have been accomplished.

For six years the Pacific Midwinter Soaring Championships have been held at Torrey Pines. The pilots vary in age from 15 to 50; their machines cost from $200 to $2,500. Regardless of the disparity in their years and bank accounts, they are all air gypsies at heart, with a fierce love for their ships. Before a meet they camp all over the mesa, not wanting to leave their precious planes.

A complete resort within a resort is the La Jolla Beach and Tennis Club, which includes 66 luxurious apartments lining the club's private bathing beach, Spindrift (page 775). Flanking the beach are a swimming pool (page 774), a pitch-and-putt golf course, several courts for badminton and half a dozen for tennis. At the entrance lies a turquoise-blue lake, stocked with swans.

The courts here are one of California's great cradles of rising tennis players (page 776). As we skirted one court, I heard a pretty teen-ager tell her chum breathlessly between serves, "I'm going to use my birthday money for a new racket." I thought of some girls I know who would spend a cash windfall for a new permanent wave. In La Jolla they put their money into sports—and there is no beauty parlor that can achieve the results gained on a tennis court.

Diners Watch a Ballet of the Sea

One of the club's most powerful magnets is the Marine Room (page 782). Dining in its sea-green carpeted salon is like being in the center of an unbreakable ocean bubble. Enjoying tender abalone steaks, we were surrounded by tempered glass walls three-quarters of an inch thick. Outside, huge Pacific breakers churned up and broke against the windows.

A reservation in the Marine Room is at a premium any time, but on the special occasions when a run of grunion is expected, Poseidon himself might have to pawn his trident to arrange for a table. On those nights, in spring and early summer, diners can watch wave after wave of the silvery little fish swim in on the rollers and perform a curious dance in the glare of searchlights.

In the shoremost scallops of the lacy foam, the females draw themselves bolt upright like exquisitely trained ballerinas. With a graceful pirouette, each drills a niche with tail tip in the wet sand and deposits her eggs. The males dart to the tiny nests and fertilize the iridescent treasure.

For an instant, before the next wave engulfs them, the fish glisten on the wet, smooth sand. Then they slide back into the ocean, stirring up little mounds of sand and water in their wake.

Miss Scripps Left Lasting Monuments

No story about La Jolla would be complete without reference to Ellen Browning Scripps of the famous newspaper family. Modest and retiring, Miss Scripps loved the community and in a quiet way lavished her great wealth on its people. The days between that April morning in 1896, when she bought two ocean-view lots on Prospect Street, and her passing at nearly 96 were studded with gifts that helped to make La Jolla the community it is today.

Among her gifts is the widely respected Bishop's School, nonprofit junior-senior high school for girls. Another is La Jolla's Playground and Community House, built by Miss Ellen in 1915 at the suggestion of her friend, Jane Addams. One of the most complete recreation centers of that day, it was used as a model for many to follow.

It was a comfort to us to know that two more gifts of the Scripps family, the Scripps Metabolic Clinic and the Scripps Memorial Hospital, were always available in case of need. The Clinic's medical director, Dr. James W. Sherrill, authority on diabetes, and Dr. Francis M. Smith, heart specialist, are leaders in their fields, as is Dr. Arne N. Wick, head of its research department.

Miss Scripps' Prospect Street home continues to benefit her fellow La Jollans. A group of prominent citizens, led by Mr. Gordon Gray, have transformed the stately mansion into a distinctive Art Center. To do it they raised hundreds of thousands of dollars in five years without going outside of the community and near-by Rancho Santa Fe.

Visitors to the Art Center enjoy spacious

Diners in the Wave-battered Marine Room Feel They Are in an Aquarium Looking Out

Tempered glass three-quarters of an inch thick forms these windows in the Beach and Tennis Club, but nothing can shut out the sea's angry winter roar. Sometimes by night hundreds of spawning grunion dance in the surf as searchlights illuminate their silvery sides (page 781).

galleries where exquisitely lighted traveling shows from other museums all over the country are displayed.

A special room is set aside for the world-famous Eugene Meyer assemblage of oriental art, the Center's most important collection. An adaptable auditorium regularly offers art films, lectures, and music.

"There is one drawback," said Miss Freda Klapp, executive director. "After I have exhausted myself hanging a new show, some visitor will airily wave a hand toward the outside panorama of sea and mountains and say, 'Of course your most beautiful exhibition is right out the window!' "

Youngsters begin flocking to the Art Center at the age of six to commence their lessons in art appreciation. Miss Klapp starts them off with a study of "Children in Painting" by the great masters.

A teacher at the Art Center is Donal Hord, noted sculptor, who works freehand in any medium (page 777). At his home studio we stood captivated before a Hord work of art in precious apple-green jade. Twenty-one inches in height, it weighs 160 pounds and represents a Chinese princess and concubine of the Tang dynasty.

Memories of Many Facets

Our La Jolla summer ended in the brisk air of golden September, and we prepared to return to Washington. Reluctantly we gathered up precious shells and specimen rocks culled from shore and peak, pages of pressed seaweed fronds, and Niki's and Blake's tempera seascapes.

There were good sights and sounds and fragrances we could not pack—a sandpiper tracking across the deserted Cove at sundown; breakers crashing over submerged crags and water-tumbled rocks; the pungent aroma of the eucalyptus trees at the post office that perfume the city for blocks.

We managed to bring all these treasures back with us, anyway; not in suitcases but in memories. The Clarks are unanimous that La Jolla, The Jewel, is properly named. Its many facets illuminate not only a priceless site but a glowing way of life.

Boom Time in Kuwait

An Obscure Persian Gulf Sheikdom, Enriched by Oil, Uses Its Wealth to Improve the Lot of All Its People

By Paul Edward Case

IN a sun-scorched corner of the Arabian desert I have been watching a revolution in progress.

It is a peaceful revolution. The only combat involved is that of man versus his ancient adversaries: time, distance, climate.

Man is winning, and his prize is oil—millions of barrels of oil from one of the richest pools in the world.

The scene is Kuwait, a British-protected Sheikdom on the northwest rim of the Persian Gulf. Slightly smaller than New Jersey, it comprises about 6,000 square miles and has Iran, Iraq, Saudi Arabia, and a Neutral Territory as neighbors (map, page 787).

From approximately 135 wells the Kuwait Oil Company, Ltd., is producing about 800,000 barrels of oil daily. Gulf Oil Corporation and Anglo-Iranian Oil Company jointly own the operating concern.

Kuwait's total proved reserves—oil still in the ground—are 16,000,000,000 barrels, or roughly half the total reserves of the United States.

Kuwait Suddenly Becomes Rich

Most dramatic effect of this bonanza is the sudden fattening of Kuwait's income at the rate of an estimated $150,000,000 a year—the Sheikdom's 50-percent share of Kuwait Oil Company profits.

By dynastic law this windfall goes into the hands of the absolute ruler, His Highness Abdullah as Salim as Subah, who thus becomes one of the world's richest men (pages 791 and 800). If he chose to spend it on yachts, palaces, or racing stables, or just keep it under his bed, no one could say him nay.

But His Highness has elected to use his vast wealth for the good of all his people. Through an ambitious program of public works the ruler has started the construction of a model community in an ancient and neglected region of the world.

In all my years as a resident of the Near East, I have never witnessed a greater transformation.

Until a few years ago the obscure Sheikdom's 170,000 inhabitants quietly occupied themselves with the time-honored pursuits of pearling, fishing, seafaring, and shipbuilding. The capital, also called Kuwait, was known chiefly as a junction of caravan routes and as home port of deep-water sailing dhows.

Fortunate geographical position and easy customs regulations give Kuwait a brisk traffic in many kinds of goods flowing between Europe, Asia, and Africa. Now, after centuries as a placid trading center, Kuwait has become a mushrooming boom town, just as has happened frequently in America's petroleum-rich Southwest.

On the streets, Arabs in flowing robes slip along silently beside Americans and Europeans in business suits or work-stained khaki. Accents of Texas and Oklahoma, London and Zürich mingle with guttural Arabic. Camels and donkeys, once lords of the road, step warily lest they tangle with American cars, trucks, and earth-moving machines. In the harbor the ancient dhows rock in the wash of passing tankers.

Flow Increased after Iran Shutdown

The curtain rose on the Kuwait drama in 1936 when a well was drilled near Al Bahara, north of the port across Kuwait Bay. It was a dry hole, a failure. Within two years operations were begun in the Burgan area, to the south, and the result was a steady succession of producers.

Activities were suspended in 1942, because of the war, and resumed in the latter part of 1945. After Iran shut down its Abadan production in 1951, thereby denying the United Kingdom one of its chief oil sources, Kuwait's output was increased from a little more than 450,000 barrels a day to its present 800,000.*

In the Neutral Territory south of Kuwait American companies have completed several test wells. Results have not been announced. If this field should prove a producer, it would mean even more riches for Sheik Abdullah Salim. He and Saudi Arabia's King Abdul Aziz al Saud jointly own the Neutral Territory.

All is hustle and bustle now within and beyond the crumbling old wall that surrounds three sides of Kuwait. Shiny new sedans glide through the widened gates. Trucks and trailers thunder in and out. Kuwait dashes to work in the tempo of Times Square. There is little time for the old greeting at the gate, and hardly any for the former ever-ready cup of spiced coffee.

The Kuwait Oil Company has 7,165 men on its payroll. About 750 English and Ameri-

* See "Journey into Troubled Iran," by George W. Long, National Geographic Magazine, October, 1951.

Kuwait's Ruler, His Advisers, and Oilmen Inspect a Tanker-loading Pier

Large enough to berth eight tankers, the Kuwait Oil Company's Mena al Ahmadi terminal can load more than 100,000 tons of crude every 24 hours (page 786). Oil royalties have made Sheik Abdullah Salim (in light robe) fabulously rich (pages 783, 791, and 800). Here he walks with Texan L. T. Jordan (extreme right), general manager of the company.

cans supervise this force, which is 57 percent Kuwaitis and other Arabs. To train Kuwaitis in modern industrial techniques, the company operates an elaborate school (page 801).

New oil wells are being drilled and new fields are being named. American oilmen run many of the rigs. Floodlights turn the desert night into day.

British and Americans have also helped build a pier more than 4,000 feet into the Persian Gulf. At the T head of the pier tankers daily take on enormous loads of crude oil and sail away to the world's markets.

At the same pier cargo vessels discharge tons of pipe, machinery, vehicles, and other equipment necessary to a huge industrial undertaking. A new city, Mena al Ahmadi (Port of Ahmadi), grows out of the sand at the land end of the pier.

Smiling English girls welcome visitors at the company's offices. Englishmen and Americans everywhere guide the work of unloading freighters, loading tankers, laying pipe, managing storeyards, operating the small topping plant (a petroleum still), and a hundred other jobs.

All this oil activity is some 25 miles south of the town of Kuwait. Except for the unloading and storage areas in Shuwaikh, just west of the city wall, the oil operations are well beyond sight of the city itself.

The Old Lives Beside the New

Leaving the Machine Age maelstrom and passing through one of the four teak-planked gates in the city's 15-foot mud wall, I found a fascinating jumble of new and old. Bedouins and their ancient gear brush shoulders with Kuwaitis in Western clothes tailored in Baghdad from latest English patterns. A bright new station wagon displaying an airline's insigne was parked in front of a new shop furnished with Indian carpets, American tables and chairs, and teakwood paneling.

Across the central market square, called

783 Paul Edward Cain

Merchants Walk a New Street Cut Through the Heart of Booming Kuwait

Asphalt, brought from Iran's Abadan refinery before its shutdown, paves the surface. The shop, which specializes in rugs and pearls, also offers antique firearms, coats of chain mail, brassbound chests, pottery, and dusty odds and ends. The two traders wear Arabian robes and headdress, protection against both heat and cold, above Western suits. The Sheikdom is spending millions of oil dollars on improved streets, sewers, and water mains. Mud-wall houses, which collapse under heavy rains, are giving way to cement-block structures.

755 Gottlieb Bodart, Magnum

Tankers Drink Their Fill of Kuwait Oil in Less than Eight Hours

Loading quays form the crossbar of a steel T thrusting nearly a mile into the Persian Gulf at Mena al Ahmadi. Special fenders, developed for World War II's artificial harbors, yield under impact, protecting pier and ships in rough weather. Temperatures ranging from 30° to 170° F. cause 24-inch pipes to expand and contract severely. To allow for movement, the lines are mounted on rollers, with an S-bend at the pierhead.

Safat, I saw a forest of heads where men from many countries sat cross-legged on high benches and sipped cardamon-flavored coffee or sweet tea.

Iranians, Iraqis, Baluchis, Indians, Nejdis, Hejazis, Omanis, and Arabs from all over the peninsula chatted about the work they were doing or hoped to do in this boom town.

Houses Razed to Widen Streets

On the "street of pillars" is the busy office of Kuwait's Public Works Department. Here the ruler's half-brother, Sheik Fahad bin Salim as Subah, presides over the huge job of changing completely the country's face.

On a big map each type of work, such as road widening, water-pipe laying, sewer-line construction, asphalting, or electric-power installation, has a code color. Some jobs were well along toward completion; others were still on the boards.

From an engineer in the office I learned that many houses were being demolished to provide wider and straighter streets. Miles of pipe were being laid to distribute pure distilled water from a new 1,200,000-gallon-a-day Westinghouse sea-water distillation plant.

Kuwait has only brackish water in its wells, and this has been a major deterrent to development of the city. The new sea-water distillation plant will be one of the largest in the world. The evaporators will be run on steam taken from four 7,000-kilowatt steam turbine-generator units now being built by Westinghouse at its Sunnyvale, California, plant. These units will provide Kuwait with its first major source of electric power.

I strolled on one of the newly widened avenues and descended a short, steep hill to the new Government-built port at Shuwaikh. Shining warehouses of corrugated iron held incoming stores. Plans call for a long pier

to deep water and for free-port facilities.

Inside the protecting breakwaters I saw hundreds of Kuwait dhows tied up to the busy wharfs or riding at anchor (pages 792-3 and 796). Most were of the type called *booms*. These craft sail the Persian Gulf, Arabian Sea, and Indian Ocean, bringing to Kuwait the best of Indian and African products or raw materials.

Booms have distinctive teak bowsprits rising to rounded black ends often set off by a white band. Hulls and bows are polished with fish oil. Below the waterline a pasty white concoction of lime and tallow serves as an antifouling paint. Kuwait booms are known far and wide for their sturdiness, and their captains for their ability.

Dhows Bear Strange Cargoes

As I watched the unloading at the new port, the strange cargoes fascinated me. Three ships were loaded to their built-up sides with date pits. These were being sacked and weighed at the ships' sides to be resold as donkey or goat feed. Date-palm branches in heavy bundles filled other ships.

Both pits and branches had come south from the Shatt al 'Arab, formed by the Tigris and Euphrates Rivers northwest of Basra in Iraq. Bricks, square and yellow, had come from Iran.

Great hand-blown bottles, also Persian, each containing three to five gallons of a fruit juice for flavoring tea, were encased in wicker jackets. Dates from Basra or near-by areas were piled high in many ships.

Always at the bottom of the date ships was a thick puddle of molasseslike syrup full of debris, flies, and sand. Children filled crocks and tins with the black juice.

I saw several ships loaded with crushed shells mixed with sand. Men hauled this in baskets on their heads to waiting trucks and donkeys. Others spread the material on the pier and causeway to level up the new roadways.

In the center of all this activity, a large sail was laid out on the newly sanded dockyard, and five men began to sew up long tears.

As noon approached, fires were lighted in fireboxes, standard equipment on all booms. Men later squatted aft around steaming dishes of rice and a spicy sauce set out on bright enameled trays. Eating with their right hands, they often waved to me, calling "Tafaddal" (Welcome—Be our guest). Among the sailors were Iranians who smoked hubble-bubble pipes with gaily colored stems.

Kuwaiti women were seldom seen, although some busied themselves with peddling chickens in wicker baskets or in sewing clothes brought to them for repair.

Drawn by Irvin L. Allenson

Kuwait's Only Oil Outlet Is the Troubled Persian Gulf

Iran, Iraq, Saudi Arabia, and Bahrein, all close by, offer tempting prizes to an oil-hungry aggressor. Neutral Territory, owned by Kuwait and Saudi Arabia, holds out the prospect of another rich pool. Kuwait stepped up its production when Iran seized the huge British refinery at Abadan. Tankers load at Mena al Ahmadi, near the Burgan field.

A few other women had apparently come to the pier to see their husbands' or fathers' boats. Dressed in their finest, with gold ornaments, heavy veils, silver toe rings, and silver anklets, they kept together in small groups. Each talked only to her own man when she reached his ship.

Some new booms were being built. Ancient methods of handwork are used—father teaching son, with nearly equal affection for the son and the craft they create.

Heavy Indian teak logs, hand-sawn into one- and two-inch planks, lined the shore. Masts and spars were stacked in the yards along with tree crotches for shaping and bracing the insides of the booms. Blacksmiths

made spikes with big, fat heads and straps or angles to strengthen ships. Old men sat in the sunshine on carved teak benches or on the mud-and-cement seats built into their shop walls along the road.

Youngsters Make Mechanical Toys

Children played marbles among the ships' stores. They made flat lanes in the sand with their fingers to help them shoot straight. Others spun tops whittled out of teak and tipped with a nail.

Still others had toys made of tin cans. One was a good facsimile of a truck. Another toy was a set of wooden wheels on an axle mounted on a stick. The handle could be worked, lever style, to turn the axle. It was most ingenious for a boy of ten; proudly he told me he made it himself.

The pearl trade, highly important in the days when Kuwait helped supply the rich markets of India and Europe, has declined in recent years. The reason: development of the cultured pearl. In 1900 the pearling fleet numbered some 600 vessels; today only a few visit the Persian Gulf banks.

As in the past, the proceeds of pearling expeditions are divided in accordance with ancient custom. The captain and divers each receive three shares of the proceeds, the rest of the crewmen two shares each.

At one end of the water front the Mission Hospital of the Dutch Reformed Church of America stands in spacious grounds. For 40 years its good people have served the sick of Kuwait. Recently one doctor and his wife contracted tuberculosis. They are now recovering in America, and I hear they look forward to returning to Kuwait in the near future.

How Oil Pays Dividends in Health

Oil wealth has made it possible for Kuwait to invest heavily in its own well-being. The new State Hospital is visual evidence of the great plans the Kuwait Government has for improving public health. It has 120 beds, a surgery, private rooms, tiled wards, a patio, and a beautiful view of the sea.

Another State hospital has 160 beds and is at present used only for pulmonary diseases. There are two clinics, each serving about 100 cases daily. A trailer dispensary constantly patrols outlying areas (page 802). A Public Health Section sprays DDT on all homes, stores, stables, and anyone near its busy machines.

Unfortunately, the hardy Bedouin of the desert has contracted tuberculosis from contact with outsiders. The disease takes heavy toll each year.

Kuwait has set aside a large sum for combatting lung troubles, with ample additional funds to care for convalescing patients during the long periods needed to fit them for the hard life to which they return.

There is even a Veterinary Department. Mrs. H. R. P. Dickson, a long-time Kuwait resident, told me she had seen a neighbor's boy leading a cow homeward from a distant part of town. When she asked the boy where he had come from, he answered matter-of-factly, "From the cow hospital."

The Veterinary Department hopes to impound all incoming animals for a few days to reduce the danger of animal-borne disease, which could grow to epidemic size quickly in Kuwait.

All this health service is free, even the cow's hospitalization. Only for spectacles and precious metals for tooth fillings are there nominal charges. Private wards in the hospital levy a token charge of $2.10 a day.

Nearing completion is a 250-bed eye hospital and a 750-bed general hospital, expandable to 1,200. This enormous medical center will be located west of the city on the shore of Kuwait Bay, in buildings containing the latest and best of everything.

Doors Are Like Museum Pieces

From the water front I returned to the town through a residential area of mud and coral houses. The old houses were beautiful in their plainness, but the large teak doors took my fancy. They are hand-carved, studded with big flat nails in patterns, and bearing large wooden locks with wooden keys shaped like toothbrushes.

I found myself looking at door after door. The larger ones, for convenience, often had a smaller door cut into one of the halves. Some bore the same designs seen on the sterns of dhows. Many doors had graceful brass knockers like those made in Isfahan.

Newer houses showed the expanding influence of Basra and Baghdad. Overhanging porches or latticed second-story verandas, scalloped hoods to shade windows, beveled-edge cement blocks, and doors of Basra style all manifested Kuwait's connection with the Tigris Valley cities.

Because there are no satisfactory finished building materials at hand, Kuwaitis import cement to make concrete blocks with their plentiful sand. Blocks and sills of a house are made on the site. The ground and even the road in front of a house will often be covered with drying bricks, blocks, or bigger slabs.

During the winter, if heavy rains fall, much damage is done by collapsing mud walls of the older houses; hence the popularity of cement.

Kodachrome by George Rodger

For Sale: One Falcon. "Make Me an Offer," Says a Kuwait Street Vendor

Let others get excited over oil; this graybeard and friends discuss a young hawk's fine points. Properly trained, such birds kill small game for their masters. Falconry is a favorite sport with Kuwait's Arab chiefs.

Band and Guard Honor Kuwait's Chief of Public Security

Upon Sheik Abdullah Mubarak's shoulders falls the job of preserving law and order while his country pushes a huge improvement program made possible by oil millions. At his command is a force of 400 men equipped with modern weapons.

Here Abdullah Mubarak (center) returns a salute as he leaves his office. Bodyguards, advisers, and secretaries accompany the Governor. Police guards line the stairs.

Sheik Abdullah Salim, Kuwait's Benevolent Ruler, Spends Long Hours Studying Problems Brought by Sudden Wealth

An estimated $150,000,000 a year, half the profits of the Kuwait Oil Company, goes to the Sheik. Able to spend as he pleases, he has launched a public works program to help all his subjects. Left: Armed guards stand by as the ruler leaves Council Hall. Lower right: A hand-kissing subject greets the Sheik (left) on return from an air journey. Upper: Boy Scouts display the Kuwait flag.

Kodachromes by George Rodger

Teak-hulled Arab Dhows Rest Between Voyages in Kuwait Harbor

Kuwait throbs with activity in the midst of one of history's greatest oil booms, but its waterfront sights, sounds, and smells suggest the days of Sindbad the Sailor.

Even before the oil bonanza, Kuwait was a prosperous community because of its maritime importance.

Throughout the Persian Gulf and adjoining waters, Kuwait mariners are known for daring, skill, and solid reliability. Kuwait shipwrights, most expert on the Gulf, keep busy building new dhows and repairing old ones for pearling, fishing, and trading.

Legend has it that Noah's Ark was the dhow's prototype. Kuwaitis and other sea Arabs never use the word "dhow"; they call their ships *baggalas, booms, sambuks,* or *zarooks*. Each has a distinctive hull form.

Most popular is the swift, seaworthy boom, sharp at both ends and with a rakish teakwood sprit rising at the bow (extreme right).

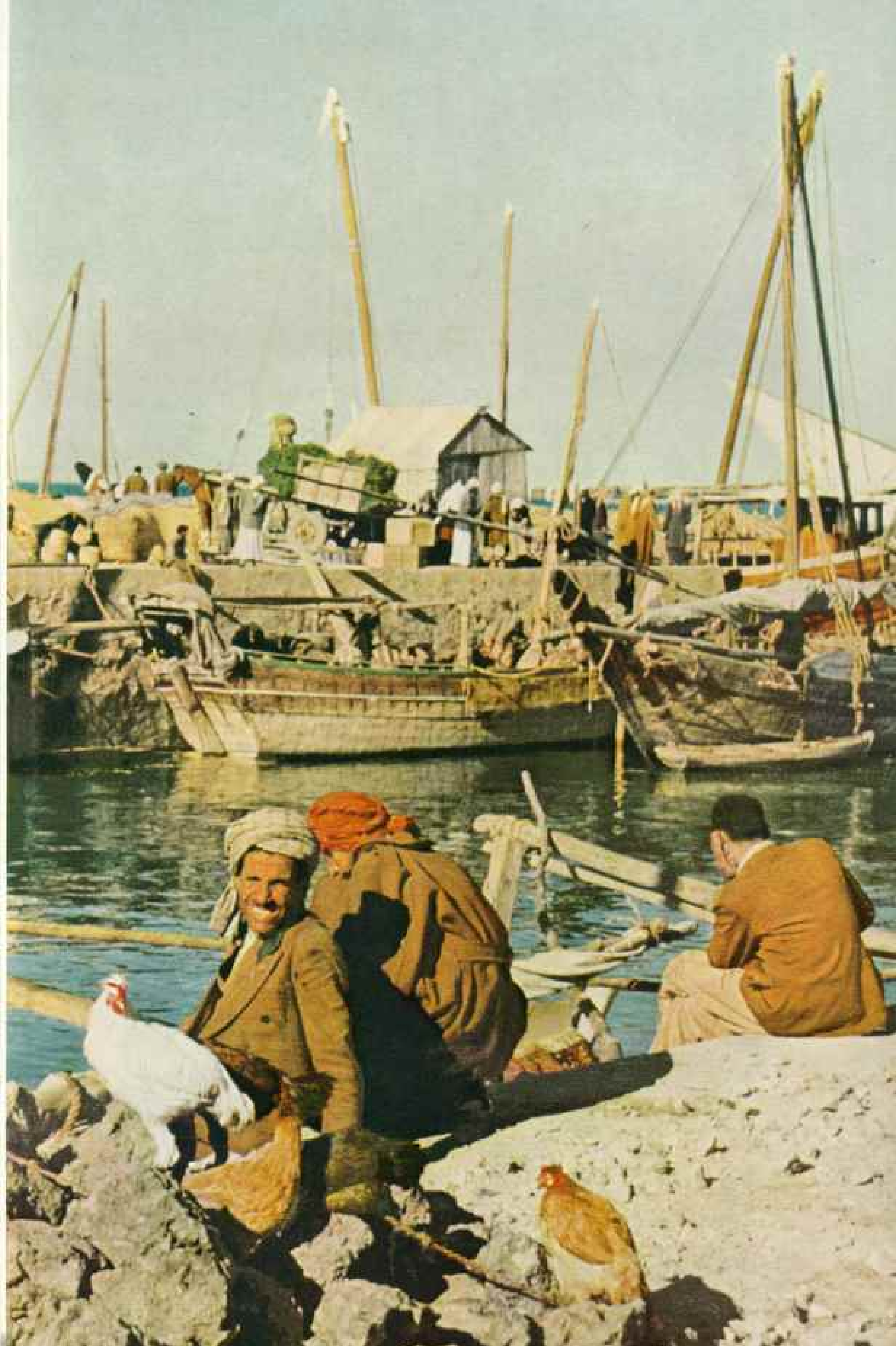
When neighboring Iraq harvests its dates, many Kuwait dhows sail 160 miles to Basra to load cargoes of the fruit. Then the ships spread lateen sails and head down the Persian Gulf and Arabian Sea to eastern Africa's markets, seeking the highest prices.

Calling at ports along the way, the dhows pick up other freight as well as scores of pilgrims, until decks are jammed and freeboard all but vanishes.

Larger dhows, leaky and overloaded, cruise thousands of miles under conditions that would appall most seafarers. Usually, a compass is the only navigation aid. Lights, pumps, charts, barometers, logs, and chronometers are missing. Moslem crews, praying five times a day, place their faith in the wisdom of Allah—and the skipper.

"If Allah is kind, the ship arrives," they say.

Kodachrome by George Rodger



A Checker Game Engrosses Water-front Idlers; Baled Rugs Conceal Their Bearer

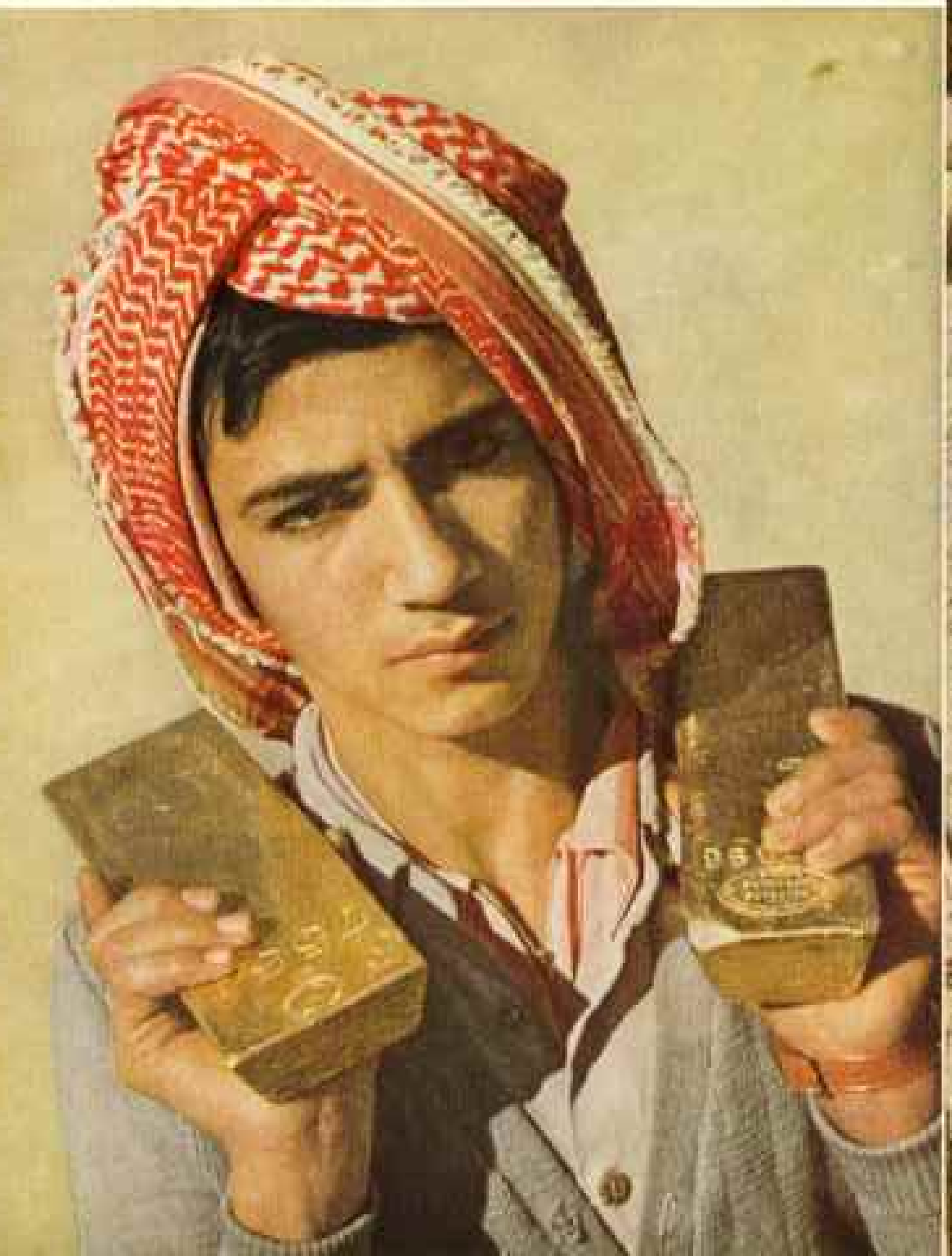
Tons of bright Persian rugs like these pass through Kuwait en route to interior markets. *Dama*, the checker game, is a favorite with Arab peoples.

Gold Bars Burden a Messenger

Kuwait is a center for transshipment of the precious metal from Europe to Asia. The boy carries 50 pounds of bullion worth about $28,000 at U. S. Treasury prices, more on the black market. So tight is security that he goes unguarded.

➤Fishermen, using fingers and toes, weave nets on Failaka Island, 20 miles east of Kuwait port. One man builds a fish trap of cane and reeds.

Kodachromes by George Rodger



Kuwait Shipbuilders, Masters of an Ancient Art, Shape Iron-hard Teak with Adzes

Logs of proper length are selected for keel, stem, and sternpost. From these basic timbers the dhow grows, plank by plank; the only plans are those in the boss shipwright's mind. A few dhows have engines.

I like to walk the still streets on a moonlit night when silent, barefoot Arabs, perfumed with sandalwood or attar of roses, pass with a soft Arabic "God bless your evening." Their gold-embroidered, hand-woven robes and snow-white headdresses gleam in the silvery light.

I saw one large wind tower, such as those that dominate one's distant view of Nain and Yezd in Iran. These towers are usually a story higher than the roof of a building. They are large hollow, square shafts, the center part of which is divided into four equal V-shaped sections with the point of the V aimed toward the center. They can catch the breeze from any direction. Outside surfaces of the towers are open or latticed so that the wind can enter to be directed down into the house.

This primitive form of air conditioning is thousands of years old. In Yezd I once slept in a room which was cooled by such a tower. Although other friends in different parts of the house found the night warm, I had a blanket over me all night.

Dhow Masts Help Build Houses

In Kuwait, the soft, yellow bricks imported from Iran are sometimes carved just as they are in Tehran, Ahwaz, Kerman, or any other Iranian city.

Some new houses under construction showed interesting uses of old materials. Discarded masts from old dhows became rafters. Other masts were sawed up to make window frames and doors. Coral rock and even mud were used over again in some places.

I came suddenly upon the western edge of Kuwait's bazaar and was immediately a part of a noisy crowd, which contrasted sharply with the stillness of the dwelling area I had just left. Women, veiled and swathed in black *abas*, were seated on long cement slabs, with their wares neatly piled before them on pieces of cloth to keep them clean.

Most women had new and old parts of clothing which they had made or mended, but their stores included almost everything—modern and antique, useful and junk.

From one of the veiled women I purchased a small brass teapot. When I pointed to it, asking the price, she hesitated, then picked up a pair of muslin Bedouin underpants with embroidered cuffs.

Her snickers were met with my laughter, and I said, "No, the teapot."

Unbelievingly, she lifted up the blackened object. It had a saucy crest like a peacock's tuft on the top lip of the spout, and a graceful handle. The whole thing was only four inches high but complete with lid and undented. Although it was sooted and covered with black blotches, its shape and a little spot of brass on the lid had caught my eye. I didn't bargain with her price—one Indian rupee (21 cents).

She shook her head wonderingly as I carried off my treasure. It now gleams in a place of honor on our buffet.

A little mortar and pestle set from this same woman's bazaar is a companion to the teapot. We use them as a bell at the dining table.

From Spark Plugs to Perfume Bottles

The wares these women offered seemed endless. There were dresses, head cloths, pants, baby clothes, hinges, screws, beads, mirrors, crocheted caps, sweaters, tools, spark plugs, tea and coffee cups, locks, keys, candy, rose-water shakers like long-necked saltcellars, perfume bottles (empty and full)—and I even saw a carom board.

Beyond this peddlers' paradise, shops crammed full of supplies from many parts of the world stretched far down the streets. One shop had mats hung on its open wooden doors. They were of woven straw, circular and in bands of colors. There were also pretty square fans woven of palm leaves on a stick of midrib from a palm branch.

Other shops had kitchenware—aluminum pots and pans, Czechoslovakian and Japanese enameled bowls and dishes; perfumes from India; candy; American chewing gum, including bubble gum; cloth, blankets, and an enormous variety of notions such as cotton, silk, and nylon thread, needles, beeswax, and dozens of kinds of Hamburg edging.

My Arab driver always buys a few yards of this lacy edging for his wife. I believe a new edging on a dress is the Arab way of making one over for a new season, since the few dresses I have seen seem to have straight lines and to be of one style.

Food shops were frequently mixed in among the rest. India, Ceylon, or Sumatra tea was a common sight, as well as dates, rice, whole-wheat flour, dried beans, wheat, dried peas, saffron, sugar, curry, natural lake-dried salt, whole dried peppers, and cans of sheep and camel fat.

Some Shops Cut in Half

Many shops had the tiny slim-waisted glasses from which Arabs love to sip sweet tea. Coffee, served in small porcelain cups, is flavored with crushed cardamom seed from Ceylon. Bedouins also add powdered Zanzibar cloves to the coffee.

Some shops carried on even though they had been cut in half to make room for a new street. Several sold phonographs and records. In one of these I stopped to see and hear an ancient machine with a lily-shaped horn.

Bicycle-renting shops were common. I never realized how much one could hang on

Kuwaitis of All Levels, Eager to Increase Knowledge, Give Close Attention to a Lecturer

The speaker, standing under a basketball hoop at Mubarakiyya Secondary School, talks on Arab art in Spain. Such sessions are held for students and the general public. The guest of honor, Sheik Abdullah Mubarak, Chief of Public Security and son of the school's founder, sits in front row, center (page 790). Because of his high rank, chairs beside him remain vacant.

a bicycle until I saw some shooting past, weaving reckless paths through the crowded bazaar. Some had paper flowers on the front-wheel frame; others had the entire frame wound with plastic tape; still others had hand-embroidered seat covers; and all had little woven tasseled bags, like camel panniers, hung over the center bar just behind the steering post. These bags were gay with colored hand-woven wool.

Sellers Model Secondhand Clothes

Near the new main street was a secondhand auction. Men would throw an overcoat or other garment over their shoulders and parade through the mob, shouting the asking price.

Kuwait receives large quantities of American secondhand clothing. Suits, topcoats, and odd jackets made by famous tailors can be found in such bazaars. A labor foreman we once hired had a stylish overcoat from a well-known New York shop.

These clothes arrive from America in bales. They are sorted and resold to merchants who take them across the desert to Nejd (the central region of Saudi Arabia), across the Gulf to Iran, and northwest into Iraq. Now many are bought in Kuwait itself.

Handsome chests, made in India and ornamented with solid brass studs and handles, were piled high in two or three shops. A large one with a beautiful lid of grained wood struck my fancy. I haggled with the shopkeeper, but couldn't coax him lower than 250 rupees ($52.50).

I had seen similar chests for 150 rupees when I lived in Kuwait in 1942. The influx of Westerners has changed many things. But the chest was whole and in excellent condition, so I bought it and took it home as a Christmas present for my wife.

Some time after Christmas a friend from Egypt visited us. One of the first things shown her was the chest.

Her appreciation was a smile and, "Oh! we had those in Mother's time. Every house had

one. Today we want modern things. Our brides now demand those nice sleek, veneered suites of American dining-room furniture and such things."

A generation ago every Arab girl usually had a Kuwait chest for her trousseau. Now we newcomers love them for their beauty and utility.

One shop displayed a large sign, "Penicillin for sale." Once, in Basra, I asked a druggist what things he sold the most. "Black hair dye, stomach medicine, and stimulants to make old men virile," he confided. Kuwait druggists told me the same thing, adding vitamin pills as a close competitor.

In the center of the bazaar stands the post office, and I bought a few of the Kuwait Olympic Commemorative stamps.

Behind the post office is a street of food and vegetable shops. Dates, mostly from Basra, were on display in many shops. The round 60-pound bundles were cut in half, showing dates ranging in shade from tan to black.

Here were pomegranates and potatoes from Iran, large pumpkins from Basra or the Zubair Islands in the Red Sea, onions from Iran, dried hot peppers from north of Basra, oranges, lemons, and sweet limes from Baghdad. Many other things, even fennel from near-by Safwan, were plentiful.

Buyers Compete for Fresh Fish

Off this busy street I passed through a gate and entered a beehive of excitement. It was the fish market, an open square surrounded by stalls. Baskets of gaily colored fish were everywhere.

The fish were like those in books—blue or gold fins, glistening silver bodies with black stripes. Some were large-headed and ugly; others beautiful, with velvety bloom of many hues. There were great heavy fish and tiny pan-size varieties.

What a sight, and what a commotion! It seemed as if everyone wanted to get fish at once.

Another gate a little farther down the street led into a similar square. This was the meat market. Here the carcasses, fresh from slaughtering down on the beach at the west end of town, hung on nails driven into posts or dangled from hooks attached to ropes on pulleys from the roof. Most of the meat was from sheep; a little was beef, and a small amount camel.

Walking out toward the center of the city again, I saw more phonograph shops, and barbers in their brightly decorated stalls.

On the long benches in front of some shops men sipped coffee poured by a wandering coffee boy. He usually has a brass pot with an extra bottom to hold burning charcoal. Three or four empty coffee cups, clicked between his fingers, signal his approach. Regular customers pay by the week or month, transients by the service—two to four tiny cupfuls.

Everywhere there is change. Crooked old streets are being straightened; cement blocks are replacing mud walls. Pants and shirt are crowding out the full-length gown. Western machine-made goods outsell local handmade products.

Shops formerly piled high with tent sides, hand-woven of goat hair or sheep wool, or with brilliantly colored hand-woven camel saddlebags, are now gay with Persian carpets and foreign-made cloth.

Even gunsmiths, who always sat encircled by ancient long-barreled muzzle-loaders ornamented with gold and silver bands, now have cleaner shops where they repair automatic shotguns and delicately etched double-barreled foreign guns.

One man had three Colt automatics hanging on the wall behind him while his partner worked on the stock of a .22-caliber rifle with a telescopic sight. Everything new to catch the modern Kuwaiti's eye—and his cash—is now the vogue.

Two tall radio towers dominate the wide central square. They broadcast the programs of Kuwait's new station.

In many parts of the city are new schools of spacious design. The buildings are made of concrete blocks, and each has a large central patio surrounded by airy rooms. It was a fine sight to see the happy, healthy, smiling faces of the boys as they rushed out of school at noon hour.

A Step Forward for Girls

Even more interesting was the news that, of about 8,500 school children in Kuwait, 2,500 are girls—a third of all the school-age girls in the city. One must travel in the Near East to realize what a step forward this is in a part of the world where girls suffer great disadvantages.

Arab youths are now demanding that the mothers of their children be intelligent and up-to-date. The radio has popularized the educated girl. An untaught girl will soon draw only the duller boys.

The Education Department of Kuwait demonstrates the Arabs' love of children in a most dramatic manner. Its lavish program and speed of execution stagger the visitor.

Sheik Abdullah al Jabir, the Minister of Education and a respected magistrate, is the architect and director of Kuwait's education plans. Dr. Darwish Mikdadi, assistant director of education, is his right hand in directing

300 George Rodger, Magnum

Desert Croesus: He Spends to Help His People

Oil puts about $150,000,000 a year into the bank account of Sheik Abdullah as Salim as Subah, ruler of Kuwait. He keeps only a fraction for his personal needs. The rest he turns back into schools, hospitals, roads, and public buildings. One of his most important projects is a plant which will distill fresh water from the sea, giving Kuwait its first adequate supply (page 786).

the department's far-flung operations. As I write, there are 144 Kuwaiti teachers, 17 of whom are women, and 254 foreign teachers, of whom 95 are women. In the city are eight girls' and 12 boys' primary schools and one boys' secondary school. Outside the city, in the Sheikdom's smaller settlements, are 10 more schools.

Fine Homes for Teachers

Beyond the city, on the shore of Kuwait Bay, between the new medical center and the city, is a new secondary school for 500 boys. All students will live at the school in a modern separate hostel. The teachers have fine homes which dwarf those of the oil company executives. The school building has three laboratories, an auditorium, a big lecture hall, a cafeteria, a fine gymnasium, and an athletic field.

A teachers' training school is planned next, and at the same time a vocational training school for 250 boys will be built.

At present there are 124 boys out of the country on scholarships paid for by the Education Department. There are 90 in Egypt, four in Beirut, and 30 in England.

Like medical care, an education in Kuwait is free for the asking. The Government even provides clothing, noon meals, health inspections, and transportation when needed. Kuwait is caring well for its children—the harvest will come later.

No Income Taxes!

Kuwait levies no taxes on individual persons, income or otherwise. There is no duty on incoming essentials such as food and common cloth, and all dutiable imports are very lightly taxed.

C. J. Pelly, British Political Agent for Kuwait, is one of the ruler's chief foreign advisers. From him and the groups he represents, Sheik Abdullah Salim gains valuable counsel in handling Kuwait's income and in administering the public-works program.

The United States is represented by Consul Enoch Duncan, well liked and highly respected by the Kuwaitis.

Not the least of Kuwait's problems is that of holding reserves for the future, when oil income may not be as great as now enjoyed.

Behind all of the modernization and breathless expansion is Kuwait's ruler, Sheik Abdullah Salim. He is a true Arab with all of an Arab's personal integrity and simplicity. When in 1950 he was called upon to rule his people, he replied that if he did so he would not allow any changes in his personal way of life. He wanted no fancy trappings, no

801 Gulf Oil Corporation

Vocational School Turns Desert Nomads into Skilled Craftsmen

To fit Kuwaitis for responsible oil-field jobs, the Anglo-American producing company operates a training center at Magwa (page 784). Here, after basic schooling in arithmetic and English, trainees advance through courses in many trades. These students work on a problem in electrical engineering.

royal robes. His daily meeting was to be open to all who wished to see him.

The Sheik has kept to exactly the type of rule he outlined, and his ministers have been chosen well. They have been made independently rich to be above temptation.

Officials Have No Money Worries

Said Mr. Izzat Jaffar, personal secretary to the ruler: "We all have our own fortunes, which have been made ample. That leaves us free to do what we wish most—to build our own monuments in solid public works benefiting our people."

The founding fathers of three centuries ago would never know their village. Arab legend tells us that the Bedouin tribe of Beni Khalid created Kuwait. Probably Barrak bin Ghurair, head of the Beni Khalid and lord of Hasa (now a province of Saudi Arabia), was its founder.

In administering his great territory, Barrak, who lived about 300 years ago, is supposed to have felt the need of a port in the northern part of his domain and to have caused some of his subjects to move to what is now Kuwait.

The first sheik of the present line of rulers was Subah Abu Abdullah, who seized the supreme power in 1756. Just before Subah's conquest, there had moved to Kuwait from Aflaj in lower Nejd a confederation of Bedouins led by the three families of Subah, Khalifa, and Jalahimah.

The Khalifas later seceded from the confederation and moved to Qatar, where they would be nearer the main pearling banks. The Jalahimahs also seceded and moved to the Arabian mainland, leaving Kuwait to the Su-

George Rodger, Magnum

A Mobile Medical Clinic, Bought with Oil Wealth, Tours Kuwait Villages

For ailing Arabs who cannot travel to the capital, the Sheikdom provides an American-built trailer unit staffed by a physician, nurse, and technician. Here the doctor examines an elderly man at an outlying village; other patients wait their turn. Treatment costs them nothing. New hospitals, including one for animals, are part of Kuwait's heavy investment in its own well-being (page 788).

bah family. In the early 1780's the Khalifas again moved, this time to the Bahrein Islands. Here, except for a short interval, they have remained as rulers and now enjoy a steady income from oil as Kuwait does.

Al Saud Once Lived in Kuwait

King Abdul Aziz al Saud of Saudi Arabia lived in Kuwait from about 1893 to 1902. His family had been driven from the Nejd, where he was born in 1880, by a powerful rival, the Rashidi family. From Kuwait he and his father planned an offensive against the Rashidis. The astute Sheik Mubarak of Kuwait helped Al Saud equip the expedition, which had a brilliant success.

Later on, Al Saud's remarkable abilities made him the creator of Saudi Arabia and enabled him to give the country the security it now enjoys.

Ten years ago, in the rush of the war, I helped build barges on the beach west of the city. We were far out of town and almost the only persons beyond the walls. Some Bedouins, in tents clustered at the base of the city walls, were the only other outsiders.

Today our former house and cookhouse are homes for English oilmen. The barren beach has sprouted the town of Shuwaikh, with warehouses, compounds, piers, fuel tanks, and the huge sea-water distillation plant. The secondary school and the medical center are also parts of this growing suburb, where Westerners enjoy air-conditioned amenities.

Kuwait, the former sleepy village, has awakened with the coming of oil and is stretching its strong new limbs.*

* For additional articles on the Persian Gulf area, see the National Geographic Magazine Cumulative Index, 1890–1951.

New National Geographic Map of the Pacific, Where East and West Meet

EARTH'S mightiest ocean, the Pacific, covering about a third of the surface of the globe, is a sea of mankind's destiny. Events taking place today on its waters, islands, and surrounding shores will affect profoundly the future of our world.

Both the making of modern history from day to day in this vast area of the earth and the stirring dramas of its memorable past can be easily followed on the National Geographic Society's large 10-color map of the Pacific, distributed to its 2,000,000 member families as a supplement to this issue.

Today the United States is building defenses and meeting important postwar responsibilities in the Pacific and Far East. The new map gives a timely picture of the geographical relationship between the Eastern and Western Worlds. It covers an area from Peiping to Pocatello, from Australia to Alaska, and from Siberia to Cape Horn.

Stars mark airports, including bases for ocean-spanning planes. The dashed lines of main ship routes, with distances in nautical miles, emphasize the words of Alexander Pope: "And seas but join the regions they divide."

60 Insets Show Important Islands

Islands are the keys to the Pacific, and some 20,000 dot its waters. Many are only a few square miles or acres in area. In World War II they provided indispensable bases for the American offensive against Japan. In peace they serve as supply and refueling points for ships and planes.

The more important islands and island groups appear on this new map in 60 insets around the border, in magnified detail, some on a scale 110 times that of the main map.

Among them are such historic names as Wake Island, gallantly defended against the Japanese by U. S. Marines and civilians. More recently Wake was in the news when typhoon-driven waters inundated its surface and destroyed the commercial airways station there.

Here too are Easter Island, site of mysterious statues carved by an unknown people; Pitcairn, home of the descendants of the mutiny on the *Bounty*; and Bikini and Eniwetok, site of secret atom-bomb tests.

With these detailed island insets the map's single sheet, 37½ by 29 inches, forms a virtual atlas of the Pacific Ocean. A booklet-form index to its 5,958 place names is obtainable separately.*

The new map reveals with dramatic clarity the strategic importance of the Pacific islands and especially Hawaii to the defense of the two American continents.

Today, American outposts extend to the Pacific's western borders, in Korea, Japan, Okinawa, and the Philippines. Eight months ago the United States, Australia, and New Zealand ratified the ANZUS treaty of mutual defense. This map will help bring to life the headlines that originate in the Pacific area almost daily.

Ships with troops and supplies for the Korean war cross the North Pacific in two weeks. Hospital planes fly the wounded home in only two days. Contrast this with Magellan's starvation-haunted voyage of 98 days from Cape Horn to the Marianas in 1520–21.†

Atomic Weapons Tested Here

Remote Pacific isles play leading roles in today's Atomic Age.

After 160 people had been moved from Bikini Atoll, the world's fourth atomic bomb was exploded over its 280-square-mile lagoon. Later, a fifth was exploded in the lagoon itself, the world's first underwater atomic blast.

Today, on near-by Eniwetok, scientists and military men test atomic weapons at the United States Atomic Energy Commission proving grounds. Unauthorized visitors are excluded from an outer "danger area" of some 30,000 square miles.

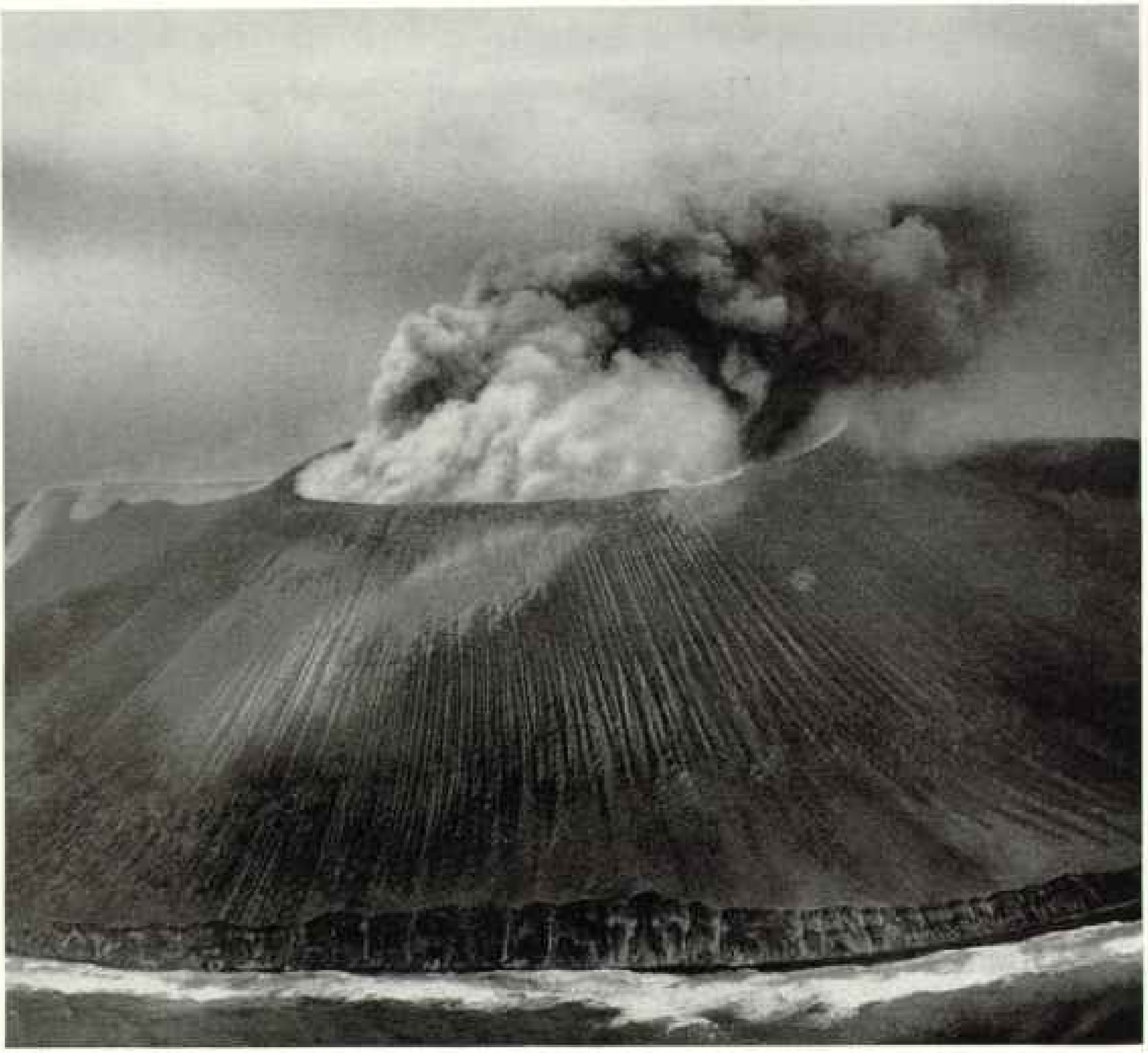
Britain's first atomic weapon was exploded in the Monte Bello Islands, 50 miles off western Australia, last October.

Weather is a major concern in the Pacific, not only because ships and planes need accurate reports but because much of North America's weather moves in from the North Pacific. Since this area has few islands to furnish reports, the United States, Canada, and Japan now operate seven ship weather stations, each marked on the map by a small ship symbol. These vessels cruise endlessly within a circle less than two miles in radius, reporting weather conditions every three hours.

The deepest water known to man was discovered in 1951 in the western Pacific, between the islands of Guam and Yap. The British survey ship *Challenger*, using an echo-sounding device to explore the Marianas Trench, suddenly "lost" the bottom. A 140-pound lead weight, fastened to 20 miles of

* Members may obtain additional copies of the new Pacific Ocean map (and of all standard maps published by The Society) by writing to the National Geographic Society, Washington 6, D. C. Prices in United States and elsewhere, 50¢ each on paper; $1 on fabric; Index, 25¢. All remittances payable in U. S. funds. Postpaid.

† Many articles on the Pacific Ocean and its history are listed in the NATIONAL GEOGRAPHIC MAGAZINE Cumulative Index, 1899–1951.



804 U. S. Navy, Official

A Newly Active Volcano Off Mexico Spreads Ash and Vapor over the Pacific

This one rumbled up last summer from San Benedicto Island, 340 miles west of the Mexican coast. Two others burst forth from Didicas Rocks, 320 miles north of Manila, and from the sea about 260 miles south of Tokyo. All are associated with seismic activity around the Pacific's rim.

piano wire, was dropped over the side. It took one and one-half hours to reach bottom at 35,640 feet, nearly seven miles.

Only a few months earlier, the Danish ship *Galathea* had found a hole nearly as deep, 34,578 feet, northeast of Mindanao in the Philippines.

These depths appear on the new map.

In the random sprinkling of former Japanese-ruled islands that make up most of Micronesia, dotted red lines show clearly the new postwar political boundaries.

Today the United States holds administrative responsibility and military control over some 5,000,000 square miles of the Pacific, from just west of the International Date Line almost to the shores of China. Micronesia is administered under United Nations Trusteeship. Easternmost of the Trust islands are the Marshalls, which spread over some 200,000 square miles of water but have a total land area of only 70.

Since the war, the United States has poured millions of dollars into repairing war damage in the islands, improving the lot of the islanders, and reviving the copra trade. Schools have been set up, though in some cases this involved creating a written language where none existed. Cattle have been placed on islands large enough to support them.

The main Pacific map and all of the insets are drawn on Mercator's 384-year-old projection, still considered the most useful for navigation. When World War II broke out, the United States Navy ordered 600 copies of a National Geographic Pacific map which had been drawn on the same projection and sent them to its ships sailing against the enemy.

Grass-skirted Yap

War Made Uncle Sam Foster Parent to These Far Pacific Islanders, Who Prize Old Ways, Taboos, and Huge Disks of Stone "Money"

By W. Robert Moore

With Illustrations from Photographs by the Author

THE TINY naval freighter shuddered and reeled as she nosed out of Guam harbor breakwater and headed southwestward. A typhoon careening off toward the Philippines had kicked up a lively sea.

On a small space of the unsteady afterdeck sat seven of us—a priest going to the Palaus, a trader in island products, four Harvard anthropologists, and I. We clung to our seats amid a chaos of suitcases, boxes, camera gear, and sleeping cots under a canvas awning that was to prove inadequate to ward off either tropical sun or sweeping rain squalls.

But what did it matter? The strange and inviting Yap Islands lay over the horizon, only 500 miles away.

During the war in the Pacific I had seen Yap as I flew between Guam and the Palau Islands. Our forces had bypassed the Yap group of islands, but Japanese antiaircraft guns made the climate above them a bit unhealthy. Since then, Yap, like the other Pacific islands of the former Japanese Mandate, has become part of the Trust Territory under United States control.*

My four anthropologist shipmates—William D. Stevens and David M. Schneider, social anthropologists; Nathaniel R. Kidder, demographer; and Edward E. Hunt, Jr., physical anthropologist—were members of the Peabody Museum expedition from Harvard. They were one of the teams in the comprehensive project called the Coordinated Investigation of Micronesian Anthropology—CIMA for short—sponsored by the Pacific Science Board of the National Research Council and by the Navy Department.

Theirs was the nine-month task of making a detailed study of the customs in the Yap island group, of finding how the Yap mind ticks. Some of the facts they found were generously shared with the National Geographic Magazine.

Man Added an Island to Yap

When first seen from a plane or ship, Yap appears as a single land lump. Actually it is made up of four main islands and several small ones closely set within a hemming coral reef. Overall, the group is some 16 miles long and 6 miles across at its bulging midriff (see Pacific Ocean map, a supplement to this issue).

Once there were only three main islands—Yap, Map, and Rumung. The fourth, Gagil-Tomil Island, formerly was linked to Yap Island by a low mangrove-covered strip of land at the upper end of deeply indented Tomil Harbor. But the Germans, during their occupation before World War I, sliced it away by digging the shallow Tageren Canal to afford easy access by small boats to Map and Rumung (pages 808-809).

Like Ponape, Kusaie, and the chief islands of Truk and the Palaus, Yap is a "high" island group. It has hills. Although the highest ridges rise slightly less than 600 feet, these islands form sharp contrast to the multitude of flat coconut-studded coral atolls that comprise part of the Carolines and all the Marshalls.

Islanders Proud of Their Culture

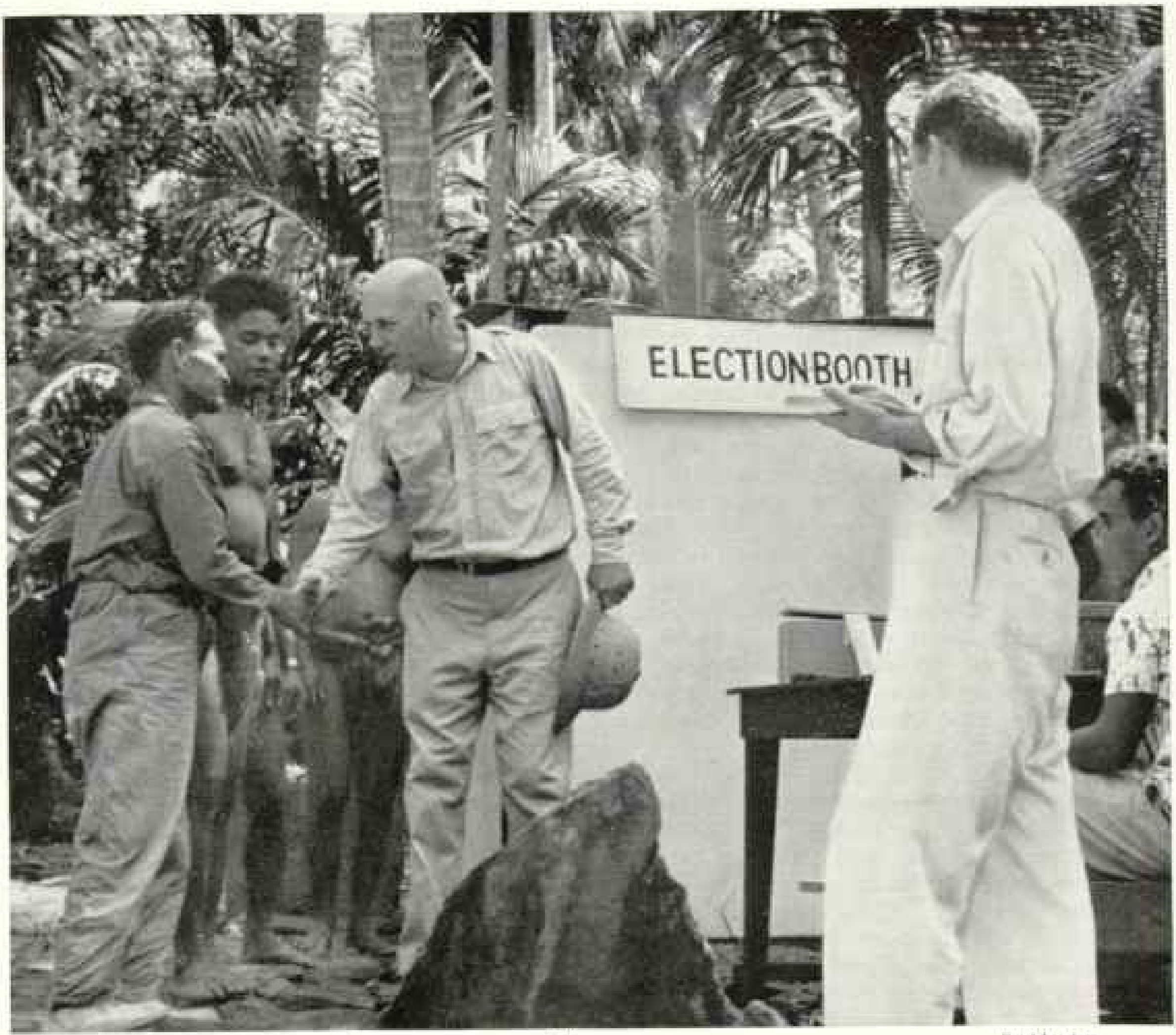
Yap islanders are an independent folk. They want no truck with foreign clothes and foreign ways. Hiking about the islands with my anthropological companions, I found hardly a native wearing trousers or a dress. The men wear loincloths; the women fashion skirts of grass, reeds, and ferns. For centuries such garb has suited their needs and economy. So why change?

As we roamed from one village to another, we saw these grass-skirted women cooking food over outdoor fires, sweeping their yards, weaving baskets, and digging in the taro beds. On island paths they looked like perambulating haystacks (pages 815-817 and 828).

Breechclouted men worked in the canoe sheds, building outrigger canoes or repairing nets. Some were busy erecting new "men's houses," or clublike gathering places, to replace those destroyed during the war. Other men sailed the lagoon to tend fish traps. Many loafed in the shade and chewed blood-red betel nut (pages 819 and 825).

At first glance the Yap people might seem to be among the most primitive of island folk

* See, in the National Geographic Magazine: "Pacific Wards of Uncle Sam," July, 1948, and "South from Saipan," April, 1945, both by W. Robert Moore; "Yap Meets the Yanks," March, 1946, by David D. Duncan; "Hidden Key to the Pacific," June, 1942, and "Mysterious Micronesia," April, 1936, both by Willard Price; and "Yap and Other Pacific Islands Under Japanese Mandate," by Junius B. Wood, December, 1921.



806 Boyd Landers

Yap's U. S. Administrator, King Chapman, Congratulates a Newly Elected Magistrate

Finiginam, chief of Dalipeebiinaaw district, put on GI clothes out of respect for Mr. Chapman, who came to congratulate him upon winning the first popular election ever held on Yap (January 7, 1952).

in all Micronesia. But their rejection of foreign ways does not mean lack of a well-developed culture of their own. In fact, they possess one of the most complex native social systems to be found in the western Pacific and are proud enough of their own traditions and customs to want to retain them.

Until recent years these islanders were a seafaring people. They sailed their outrigger canoes southwest to the Palaus and roamed among the atolls that lie hundreds of miles to the east. A number of the "isles of Ngek" (islands to the east), as they are known locally, still look upon the Yap chiefs as their masters.

Although Yap has experienced the control of Spain, Germany, Japan, and now Uncle Sam, foreign influence has made little impress.

The Germans and the Japanese did succeed in limiting some of their practices. The Japanese, for instance, made the youngsters wear clothes in the schoolrooms; but the moment classes were ended, off came the clothes!

Japanese officials also forbade tattooing. Despite the ban, many of the younger men have rising suns, flags, and other tattoos on their arms. But these decorations pale beside those we saw on a few of the older men.

One such classic figure was bearded, aging Foneg, second high chief of the Gagil district, whom we met at Gatjapar. His arms, body, and legs were almost solidly covered with striped patterns (page 827).

Aptly, the Yap word for writing, *yaal*, is the same as that used for these symbolic tattoo markings.

On many of the other Pacific islands I had visited, the people lived in closely settled villages. Here on Yap I found homes widely scattered around the coasts. Even in so-called villages, the houses are so secluded in gardens that seldom are there more than two or three within view of each other.

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Islanders Waiting for Holiday Dances Worry about Nothing but the Fun Ahead

A tarpaulin-covered shed in Colonia provides an umbrella for these visitors. Some eat taro root; others chew betel nut (pouched cheeks), or pick their teeth. All take life easy, free of work for the day.

Part of the isolation stems from the fact that the population is considerably less than it was years ago. But much of it is due to the islanders' own desire for privacy.

Coconut and areca palms, banana plants, and shade trees usually hem the thatch-roofed houses that are set in the center of sanded or coral-graveled yards. Much of the family's daily life is spent in these carefully swept grounds. The women cook the food in small outside cookhouses and sit outdoors to weave. Guests, too, are entertained in the shade of the house or under the trees. The house serves mainly as sleeping quarters and as storage place for the family possessions.

Most of the homes are built on raised stone terraces and stone walls. Paths about the island also are paved with coral rock.

In most village centers we found stone-terraced areas where people gather for ceremonial meetings and dances. Stone uprights set in these platforms serve as back rests against which chiefs and others may lean. Even a rock slab, I imagine, affords some measure of comfort during protracted powwows!

Banks of Cartwheel Stone "Money"

"You'll probably want to go to the Yap bank," an American official said when we first landed at Yap. There was a twinkle in his eyes. He took us to Balabat, near Colonia (Yap Town).

The "bank" consisted of rows of huge millstone-shaped stone disks of so-called Yap stone money, propped against terraces. Some stones were only about two feet in diameter, but others were as much as 8 to 10 feet across. All had a hole in the center through which a pole could be thrust for moving them (page 820).

Later we were to see hundreds of other stone disks leaning against terraces or beside homes. Actual count at one time showed

▲ Clouds Float Across Yap Like Galleons

Yap Islands, part of the Carolines, lie at the Pacific's western end, southwest of Guam. Volcanic rocks and coral betray the origin of the four main islands and 10 smaller islets. White surf edges the barrier reef, which encloses channels where fishermen navigate freely. Coral heads that once lurked beneath the surface have been blasted to permit seaplane landings at Colonia.

◀ Mangroves line the German-dug Tageron Canal separating Yap and Gagil-Tomil. Here two Harvard anthropologists studying Yap's customs take advantage of high tide to cruise the waterway (page 829).

U. S. Air Force, official

Oriental Sails Drive a Navy Whaleboat

Despite generations of Spanish, German, and Japanese rule, and present United States administration, Yap's proud people have yielded little to modern custom. They still sail outrigger canoes, for example, like those of their forefathers.

Yet these sailors find a U. S. Navy whaleboat to their liking. Here men from Gorror, racing with homemade sails, bring their craft past the finish marker.

The aerial view above shows Map Island in the center foreground, with Gagil-Tomil at left and Rumung at right. Beyond lies Yap Island, with Gorror at distant tip (center).

that there were 13,281 pieces of these unwieldy "coins" scattered over Yap.

"You'll be interested in knowing that these slabs of stone money aren't money, as we know it, at all," said Dave Schneider, after spending considerable time delving into the significance of the cartwheel disks. "Nor are *lava-lavas* (loincloths) used as mediums of exchange.

"They have ceremonial value and symbolic meaning, but are rarely used in trading. In fact, the people do comparatively little buying and selling or bartering. You might call most of their dealings simply transactions of courtesy."

Dave explained how it worked. If, for example, a man needs a pig for some ceremonial feast and doesn't have one, he goes to a man who has and asks for it. Custom decrees that the owner give him the pig.

Later, perhaps the next day, the man who has received the pig goes to the other and passes the remark: "You are very tired, and to relieve you of your tiredness I wish to present you with these shells" (or some other gift). But this is not to be construed as a payment, for there have been no values set, no bargaining.

The "lend-lease" can work both ways. Sooner or later the recipient of the pig is likely to be called upon to present some possession of his to a member of the community, and he in turn receives a gift.

This custom of sharing upon request and passing gifts makes many personal possessions available to the needs of the community. Chiefs and other influential individuals, to maintain their high prestige, necessarily have to present more elaborate gifts than the poorer people. No one gets very rich.

The big stone disks, in most cases, are village property. Upon important occasions the community may present one of its slabs as a ceremonial token to another village. Transfers are prompted by such events as the death of a chief, the completion of a new men's house, or a special celebration.

Oddly enough, the actual stones are seldom moved from one place to another, unless they are small enough to be handled easily. Everyone, however, knows to what village or individual each piece belongs.

Captain O'Keefe Caused "Inflation"

Each stone cartwheel has its own history, its own token value. Some of the older and more precious ones were secured at the cost of several lives. Quarried in the limestone caves in the Palaus, or on Guam, they were brought to Yap on dramatic sea voyages in outrigger sailing canoes.

Back in the 1870's, the Irish-American adventurer David Dean O'Keefe, captaining a Chinese junk, sailed to Yap. Seeing these circular stones, he quickly seized upon the scheme of "minting" bigger and better ones in the Palaus and bringing them here.

By the venture he insinuated himself into the good graces of the chiefs and gained special trading privileges. Although he caused an "inflation," in both the number and the size of the stones, the Yap people remained little affected. They continued to treasure most the ones they had obtained by hazardous canoe transport.

The islanders also prevented early European opportunists from causing a glut of shells by continuing to place more value on their old, much-handled ones.

Shells, like the stones, come from outside Yap. The Palaus and the Philippines are the sources for the large, flat, oyster-shell tokens called *yar*. From the Palau reefs, too, come the *Tridacna* shells out of which other pieces are cut. The *gau*, or small buttonlike shells, are brought from the islands to the east, mainly Eauripik Atoll.*

Dance Favors of Oyster Shell

In Gorror, at the southern tip of Yap Island, a chief's son showed us a piece of heirloom gau. It was a long necklacelike string of inch-size pink shell disks, on the end of which hung a dugong tooth toggle. It was one of the family's highly prized possessions—so precious, in fact, that he would not allow me to photograph it.

At village dances the people presented pieces of oyster-shell yar to high-ranking chiefs and scattered some among the crowd. Wondering, we asked why.

"So that the people will speak well of our dance," explained our informant.

It struck me as exactly like giving favors at a college fraternity formal.

Such dances and community gatherings afforded a splendid opportunity to study the islanders' faces and dress. Lean and muscular, these brown-skinned folk seem a blend of nearly all the races of the western Pacific islands. But they are unusual among Micronesians for their lack of admixture with Europeans or Japanese.

Ed Hunt, the physical anthropologist, pointed out the various racial strains. In some persons the coarse features and frizzy hair of the Melanesians predominate. A few seem to have ancestral ties with the pygmies, or Negritos, of the Philippines.

Many have light complexions (particularly noticeable among the women) and closely

* See "Shells Take You Over World Horizons," by Rutherford Platt, National Geographic Magazine, July, 1949.

811 U. S. Navy, Official

Yap Men, Swapping Loincloths for Dungarees, Learn the Art of Swab Making

Medical taboos and magic rites are gradually giving way on Yap. Here a Navy lieutenant supervises native assistants in the Colonia dispensary maintained by the United States Government.

resemble such Indonesians as the Balinese. Still others have Caucasian features and, with their brown skins, would not look out of place on a street in India.

One of the rarest and most remarkable types we saw among the islanders had the long face and hook nose characteristic of many Armenians and Syrians.

Notably absent, however, is the brawny, thickset Polynesian type, such as is seen among many of the peoples of eastern Micronesia.

The ancient migratory paths of Yap forebears from the Asiatic mainland supposedly swung through the Philippines and Palaus.

Typewriter Ribbon Finds New Use

At community celebrations we saw the people in their finest garb. Women and girls donned newly made grass skirts, many of which were made gay by added strips of bright yellow reed and bits of red-dyed fiber.

One standard ornament for women is a black ribbon *marafau* worn about the neck. This black neck cord is first worn by girls when they reach maturity. Thereafter they wear it at all times, whether they stay single or marry (page 823).

Any narrow black band seems to serve. One day when Stevens was changing his typewriter ribbon, several Yap women hovered around to watch. Quickly they snatched up the old ribbon when he discarded it. A short time later one young woman came back looking somewhat irked. She had made a length of it into a marafau, but the black had come off on her neck.

Stevens soon set things right. He explained that she should first wash out the excess ink.

Men's costumes vary with the age of the wearer. Young boys wear a simple G string, called *thu*. Then, upon reaching their early teens, they add a cloth or woven fiber band, called *begiy*, about the waist. Finally, when they attain full manhood at 18 to 21 years of age, the *gaf* is added.

The gal consists of a loose skein of shredded hibiscus fiber which is passed between the legs and looped over the loincloth. It is purely decorative, but for an adult man to appear in public without it would be like an American businessman appearing on the street in his shorts.

When clad in a new loincloth begiy made of finely woven pandanus fiber and a freshly shredded gal of creamy, bleached hibiscus bark, a man is really dressed in the height of Yap fashion (pages 818 and 825). No Westerner wearing striped trousers and a morning coat for the first time ever felt more formally attired.

To this eye-arresting toggery a man of the upper class frequently adds a long wooden comb, thrust into his shock of curly hair. It might be considered the Yap equivalent of a top hat (pages 827, 828).

Now that many of the men have become partial to short-cropped hair, one sees fewer such combs worn today than in earlier years. Those who are privileged to wear them, however, usually carry them in their woven basket "purses" or have them among their possessions at home.

Scarlet Lips, Black Teeth

Both men and women are inveterate chewers of betel nut. I saw numerous youngsters, still far short of their teens, whose cheeks bulged with walnut-sized quids. The betel nut makings include the nuts of the areca palm, peppery leaves, and white lime made by burning coral. When chewed it stains the saliva red and darkens the teeth.

As if this staining were not enough, both sexes also blacken their teeth. No doubt they reason much the same as some folk in Southeast Asia who say, "Any dog may have white teeth, but it requires effort to have nice black ones!"

Yap society is divided into an elaborate caste and class system in which a sort of feudal lord and serf relationship obtains. In all there are nine classes. The lowest four are landless and live as tenants on their masters' property, growing food for their own needs. In exchange for land use, the lower classes are required to perform certain services, such as repairing roofs, building roads, and burying the dead.

When a young Yap Romeo puts a hibiscus flower over his ear and goes courting, he is expected to select someone of his own class. Women may marry one or two stations above the rank to which they are born and thus attain a higher social position. But if a man marries outside his class, he must choose one from a lower rank. As Yap maidens of the lower groups reputedly possess greater beauty and industry, the idea of a man's mating outside his class is not necessarily displeasing!

Threaded through Yap society, too, and crossing all caste, class, or political units are the clans. Members of a single clan are those who trace their maternal line back to a common maternal ancestor. These ancestral lines usually reach back into the realms of myth and involve beautiful maidens supposed to be descendants of lizards, fish, and various strange creatures.

Members of the same clan, however, are considered relatives of one another and as such do not intermarry. Should a person go from one part of the island group to another, he is received by those of his own clan.

Chief Known as "Big Voice"

It is but slight exaggeration to call the native chiefs of Yap the "big noises." The title *pilung* which they hold means the "person with a big voice." The term applies not to their vocal ability but to the fact that when they speak everyone pays heed.

The islands are divided into 10 districts, and normally each has its own Big Voice, although at the time of our visit one was without a chief. Of these nine, three were currently most influential—one in Gagil, one in Tomil, and the other in Rull, a portion of Yap. The other districts had alliances among themselves or with one of the big three. Since then, Gorror has also become more influential.

Traditionally, a chief attained his position by the ownership of a certain piece of land, the inheritance of which was supposed to have been derived through the maternal line. But here, as in many other lands, claimants to position are sufficiently numerous to confuse any orderly descent.

A sidelight on one of the chiefs came one day when Kidder was taking a census of the population. Among the questions he asked was the routine one of occupation. To it the old chief answered: "Unemployed."

The chief was honest. He produced no copra, did no fishing, nor did he help build canoes. That he was master over lands and people and was perhaps the biggest political voice in Yap did not, to him, constitute an occupation, for the duties involved no manual labor.

One of the most influential district chiefs we met was Fithingimo Niga, ruler at Gatjapar (page 828). Paralyzed in his spine by an accident suffered several years ago, he had to be carried whenever he wanted to move from one place to another. His long hair was snow-white, or would have been had he not kept it colored bright orange with turmeric.

In keeping with his age and his wisdom, his words carried much weight in Yap council.

Decked with Feathers and Shells, a Grass-skirted Yap Woman Leads a Folk Dance

Festive Villagers Gather at Colonia to Race and Dance

Only an obscure line divides work from play in easygoing Yap. Congenial groups rather than individuals do most of the work. Often they turn large projects, such as house building, into occasions for feasting and dancing. On the other hand, the islanders work hard getting ready for holidays.

One celebration commemorates the islands' liberation in World War II. Virtually everyone hikes or canoes to Colonia, where American officials administer affairs under United Nations' trusteeship. Dancing and canoe racing feature the day's festivities. Each village presents its own folk dances and chants, trying to outdo its neighbors. Men and women perform separately.

Wearing their best loincloths, these men don gay headdresses and tie yellow fronds around arms, legs, and necks. They stamp to the cadences of age-old dances.

Schoolgirls, dressed in the same grass-skirt costumes as their mothers, sit at the edge of Colonia harbor watching outrigger canoe races. Later they hopped and swished in gay stick dances, first to native chants and then to the tunes of "Twinkle, Twinkle, Little Star" and "Baa, Baa, Black Sheep," learned in school.

Abendmahlsszene in W. Blasius Moschee, Kathedrale Dreifaltigkeit Stadt

Grass Skirts Sway and Sticks Clash as Yap Women Step to a Lively Chant

Women from Gagil-Tomil perform a stick dance. Twisting, swaying, weaving, and whirling, they clack bamboo batons together in rhythm with their chanting.

817. Kodachrome by W. Robert Moore, National Geographic Staff

Navy Signal Flags Lend a Modern Touch to a Primitive Celebration

Costumes of grass and fern carry colorful streamers. The woman in foreground adds scraps from an old cigarette package to her feather headdress.

Custom Decrees No Clothes above the Waist. Seminudity Is the Acme of Respectability

519 Kodachromes by W. Robert Moore, National Geographic Staff

On Yap, as in Ypsilanti or Yuma, Baby Demands the Spotlight

More children are needed to keep up Yap's population, now about 2,700. Low birth rate and high mortality have cut the number by two-thirds since the beginning of the century, but it is now increasing slightly.

Yap Men Feel Content When Cheeks Bulge with Betel

Both men and women show teeth blackened from chewing a mixture of areca nut, a peppery leaf, and lime (made from burned coral). Islanders carry betel makings, knives, and other gear in coconut-leaf purses.

Millstone-size Disks Are Treasured as Token Money, but, Like Fort Knox's Gold, They Are Rarely Spent

Daring canoeists brought the perforated slabs 500 miles from the Palaus' limestone quarries. Large ones have names; they are almost never moved.

← A Bird's Breast Tops a Dancer's Headdress

Nature gives Yap islanders a wealth of material for personal decoration. Ferns, flowers, and feathers make headdresses, and cotton from the American dispensary sometimes forms topknots. Inner layers of coconut fronds make glistening yellow strips.

One of these dancers has painted his face and chest. Common coloring materials are red clay and turmeric, the ground root of a native herb. A shirt-sleeved hand on the man's chest indicates a visit to a foreign tattooer, perhaps in Guam or the Palaus.

Soon these two will be absorbed in their dance. Bodies will glisten with sweat as they stamp, slap thighs and arms, and pantomime an ancient folk tale.

→ This youngster, in Colonia for the festival, wears her everyday grass skirt. Her fancy headdress carries a paper heart. The metal bracelet came from Japan.

Kodachromes by W. Robert Moore, National Geographic Staff

Teacher and Students Forget the Three R's for a Day's Outing

Yap stoutly resists efforts to change its time-honored ways. Japanese colonial officials required the children to wear Western dress in school, but clothes came off the moment classes ended. Now Americans sanction the native garb.

These youngsters come from Gatjapar on Gagil-Tomil's eastern shore. Most of the girls have cropped hair like the boys'.

Schoolmaster Pitemog (right) speaks English well and teaches it to his charges. The author met him in Guam. There Pitemog endured hot, confining shirt and trousers; but, upon arriving home, he lost no time getting into his comfortable loincloth.

Loincloths have no pockets, so Pitemog carries personal possessions in his coconut-frond basket.

Flying Fingers Weave a Basket of Palm Fronds

Yap women spend most of their time out of doors, working when the need arises but resting and gossiping at other times. They prepare food, sweep stone courtyards, care for children, and hoe taro patches.

This Gorror housewife makes mats as well as baskets from split coconut leaves. She fashions the inner bark of hibiscus and pandanus plants into loincloths. Every female dons the black throat ribbon on reaching maturity.

An heirloom necklace is the prized adornment of this girl.

Kodachromes by W. Robert Moore, National Geographic Staff

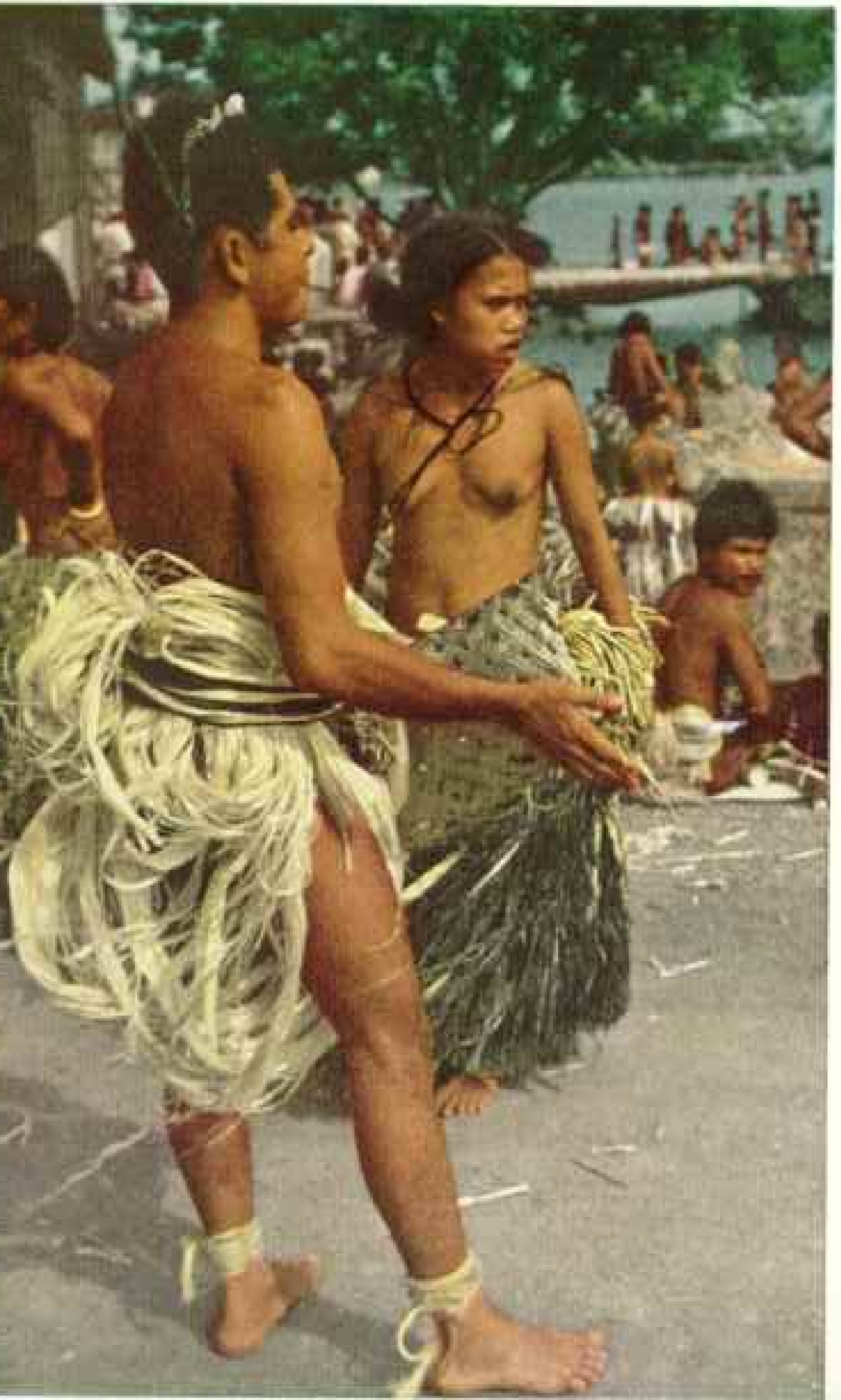
A Bronze Fisherman Poles His Craft to Yap Island

Until recent years Yap men were seafarers. Sailing large canoes, they visited the Palaus, where they carved thousands of stone disks (page 820). Somehow they towed these cumbersome cartwheels on rafts behind their canoes. A number of men died on the hazardous voyages.

Yap mariners also sailed among the low coral atolls hundreds of miles to the east. Some outlying island groups still look upon Yap's chiefs as their masters, though they rarely see them.

Today small canoes sail through the lagoon and channels separating Yap's four islands, or go on fishing expeditions beyond the reef.

This fisherman, who has been visiting traps across the lagoon, poles his outrigger craft to the thatched canoe shed, where shade prevents cracking by the sun. The hull was carved from a breadfruit or mangrove log. Not a simple dugout, the canoe is made of five parts: hull, two side pieces, and two end sections.



Old-time Styles and Crafts Seldom Change on Yap

A young man follows high fashion with a bulky skein of shredded hibiscus fiber. All adult males wear this garb, even if it be only a few shreds looped over the loincloth. On festive occasions it dominates the costume.

Small boys wear a simple G string. Reaching teen age, they put on a loincloth. The hibiscus fiber is added at 18 to 21.

Yap craftsmen, following patterns passed down by generations, put the finishing touches on a canoe. This prow, shaped like a tern's tail, duplicates the other end of the craft.

Yap mariners do not tack, but come to a stop and reverse directions, letting bow become stern.

Magic rites to assure fortune usually precede such projects as building a canoe or a house.

Kodachromes by W. Robert Moore, National Geographic Staff

A Canoeist Sets Off for a Race. His Outrigger Balances the Tug of the Sail and Prevents Capsizing

Yesterday's Styles: Aristocrat's Comb and Full-body Tattoo

Island society divides into a complex caste system. Upper classes hold rights such as owning land or using certain types of shell currency. Lower classes repair roads, build houses, and bury the dead in return for use of lands.

➤ Only an upper-caste man may wear a comb like this. Nowadays most men crop hair too short to support such an adornment.

➤ During their long rule the Japanese forbade tattooing; therefore, only a few veterans can show a striped skin like that of Fonog, second chief at Gatjapar.

Fonog endured pain to get his zebra markings. Bone needles, which drove each tiny dot into the skin, were tipped with carbon from charred coconut husks.

Photographs by W. Robert Moore, National Geographic Staff

Thirty Pounds of Grass and Fronds Make Ankle-length Bustles

These perambulating haystacks cost nothing but time to collect and assemble the materials. Women welcome American DDT spray to rid skirts of insects. Modestly, they wear them even when bathing.

"Old Fith," a Crippled Chieftain, Rides a Military Stretcher

Fithingimo Niza's age and prestige carry weight in Yap council. Paralyzed by a spinal injury, he is carried everywhere. He knots long white hair and stains it with turmeric. One bearer wears a decorative comb.

Like everyone else, however, he had no honorific titles. Both young and old called him by his nickname, "Old Fith."

The chiefs and many other individuals in Yap are astute politicians. Many accomplish their ends with a subtlety that would make some Western politicians seem crude.

When political maneuvering fails, they can, and often do, resort to magic. Though many people in Yap profess Christianity, local gods and incantations play an important part in their lives. When a house is built, a new canoe completed, or men go fishing, special rites are performed. Birth and death, too, are accompanied by special rites.

Magic Words to Weaken Fish

If a fisherman hooks a large fish while out trolling, he mutters a formula calculated to weaken it so it may be hauled in easily.

Witnessing such an incident one day, Schneider asked a young man what had been said. Because the islander was avowedly Christian and emphasized that he did not really believe in such phrases, he agreed to repeat it.

"But I must turn my back to you," he said.

"Why turn away?" asked Schneider.

"So that it will not make you weak," was his reply.

As he repeated the words—words so full of double meanings that they are not in present-day Yap language—Schneider wrote them down. When the lad had finished, Schneider started to read the words back to be sure he had copied them correctly. Instantly the islander again whirled and turned his back upon Schneider!

Professional magicians are called upon to make serious supplications to the gods. They gain their position by inheritance. They do not call upon the gods on their own initiative, but do so only when requested by their chiefs.

Some of the lesser gods are spirits of ancestors who supposedly hover about the tombs of those individuals. Others are superior spirits which are believed to dwell in certain sacred groves of the islands and can be approached only by the magicians.

Taboos, too, influence the behavior of the islanders from birth to death. They restrict the gathering of food and preparation of it, determine whom a person may marry, how families may live, and what places they may or may not go.

In family yards we came upon housewives cooking food over several different fires for various members of the family. Men and women ate separately.

Stevens studied Yap eating habits. "A mature man," he summarized, "has his food grown on a special plot, cooked in special dishes over a special fire, and prepared by a special person. No one can eat with him except another man of his own age and rank.

"An aged woman and a young boy are permitted to eat from one pot, as also are a young girl and her mother. Adolescent brothers and sisters, however, cannot share the same food."

In fact, as soon as children of a family reach maturity, the girl has to retire to separate quarters, usually a building erected for her near by. The boys move to the local men's house or, if none exists, to other quarters in the village.

When a person dies, those who have had contact with the deceased are restricted by taboos for a certain period. If the person possessed land, no one may pick the coconuts from his groves or use other produce growing there for a specified time, usually a year.

Stringent family taboos, no doubt, have been partly responsible for the decline in population that occurred during the last century. But disease and other factors had a share in causing this decline, not only on Yap but on various other islands in Micronesia.

On certain islands, health and sanitation measures have checked disease to such an extent that populations now are increasing. Here in Yap, however, the ratio of births to deaths is only now beginning to level off. Today, approximately 2,700 persons dwell on the four islands (page 819).

War Bombings Caused Much Damage

When the Japanese controlled Yap, they had a sizable community at Colonia. Many of their buildings were damaged or destroyed during bombing raids. American administrators, upon their arrival, erected Quonset-hut headquarters.

Very few Yap natives live in the Colonia settlement. Most of them prefer to remain in the semi-isolation of their own villages.

To get to outlying native villages, we had to hike—and what hikes they were when trails were muddy or stone paths slippery! To reach the settlements on other islands, we went by boat, which threaded winding channels and took a circuitous path outside the enclosing reef.

One day we decided we wanted to go to Map by way of the short cut through the Tageren Canal. The native operator of the small launch that was to carry us set the departure time. He had to time his arrival at the canal to coincide with full tide; otherwise even the shallow-draft boat could not get through (page 808).

Almost scraping the mangrove bushes at times, we slid safely through the narrow, shallow cut and reached the northern lagoon.

Outrigger canoes, their sails catching a

fresh breeze, skimmed over the lagoon which sprawls between the north end of Yap and the islands of Map and Rumung. The channel between Tomil and Map is so narrow and crooked that the islands seem joined.

In shallow waters were many fish traps. I was surprised to learn that fishing grounds, like land property, are privately owned. Boats have "navigation" rights over the water, but a Yap fisherman does not drop a line or set a trap in someone else's portion of the big lagoon puddle.

Returning to Colonia, we again slipped through the Tageren on high tide. When tides drop, the water pours out of the canal much as if someone had pulled the plug from a bathtub.

Dancers Celebrate for Americans

A few days before I left Yap, it seemed as if all the people were converging on Colonia. They were coming to watch or take part in regattas and dances as an anniversary celebration of American control.

Hundreds of men, women, and children arrived in old landing craft, by outrigger canoe, or afoot over island paths. They brought stems of bananas, thirst-quenching coconuts, and other food supplies. All were attired in their Sunday best. Babies bounced on the grass-skirted hips of their mothers.

From midmorning till midafternoon the islanders formed an animated grass fringe about the shore as they watched outrigger sailing canoes, rowboats, and sailing whaleboats go through their paces over choppy waters.

As soon as races ended, dances began. From their woven-coconut bags and bundles the performers extracted feathered headdresses, strips of reed to decorate arms and legs, and turmeric to smear on their faces and shoulders.

Each village executed its own traditional folk dance, men and women performing separately (pages 813-817). Darkness finally halted the celebration.

A few days later there was little gaiety on Yap. A typhoon had struck.

When I boarded a plane for a flight to the Palaus and back to Guam, skies already were sullen and spewed heavy rain squalls. In Guam I saw the first radio report telling of the fury that had been unleashed across the islands and read the extensive list of emergency supplies needed.

My Harvard companions had stayed in Yap. They saw screaming gales crush in walls, snatch roofs from houses, and hurl pieces of corrugated iron into the air like razor-edged flying saucers. Coconut and areca palms snapped or were shorn of fronds and fruit.

Hardly had the people had time to make temporary repairs and assess the damage caused by this tropical monster when along came another. And another. And still another, this last followed by a tidal wave.

In less than four months Yap had been scourged and beaten more than at any other time the islanders could remember.

Typhoons are no strangers to Yap, for the islands lie within the belt of those storm tracks in the western Pacific. But seldom does one center over Yap more than once in several years.

By the time these four blasts had ended, virtually every house on the islands was damaged or completely blown apart. Crops were so devastated that most foods were short for six months and coconuts for a year. The destruction of coconuts was the most distressing loss, for both young and ripe coconuts are an important food for the people and their animals.

An incidental aspect, too, was the immediate shortage of *tuba*, the fermented sap drawn from the top of the palms; as a result, the islanders were forced to keep sober. The betel-nut supply was so depleted that long afterward the people searched the ground for old dry nuts which they might chew.

In sections of Yap where young areca shoots survived, men immediately began collecting and transplanting them to replenish the supply. One of the atolls to the east, also hit by the typhoon, sent pleas to the Yap chiefs to furnish them with areca palm plantings.

The Quonset buildings and the homes of the group of Americans in Colonia were badly hit. Until new housing could be built, some had to move into damaged Japanese structures which had withstood both bombings and typhoons. When the Japanese first went to Yap, they, too, had built flimsy structures; but they soon learned that they had to have reinforced-concrete buildings.

When Magic Backfires

This multiple typhoon scourge gave rise to a strange Yap story. It seems that one of the chiefs felt his people were beginning to stray from proper Yap ways. And to correct their behavior, he felt, they should be punished.

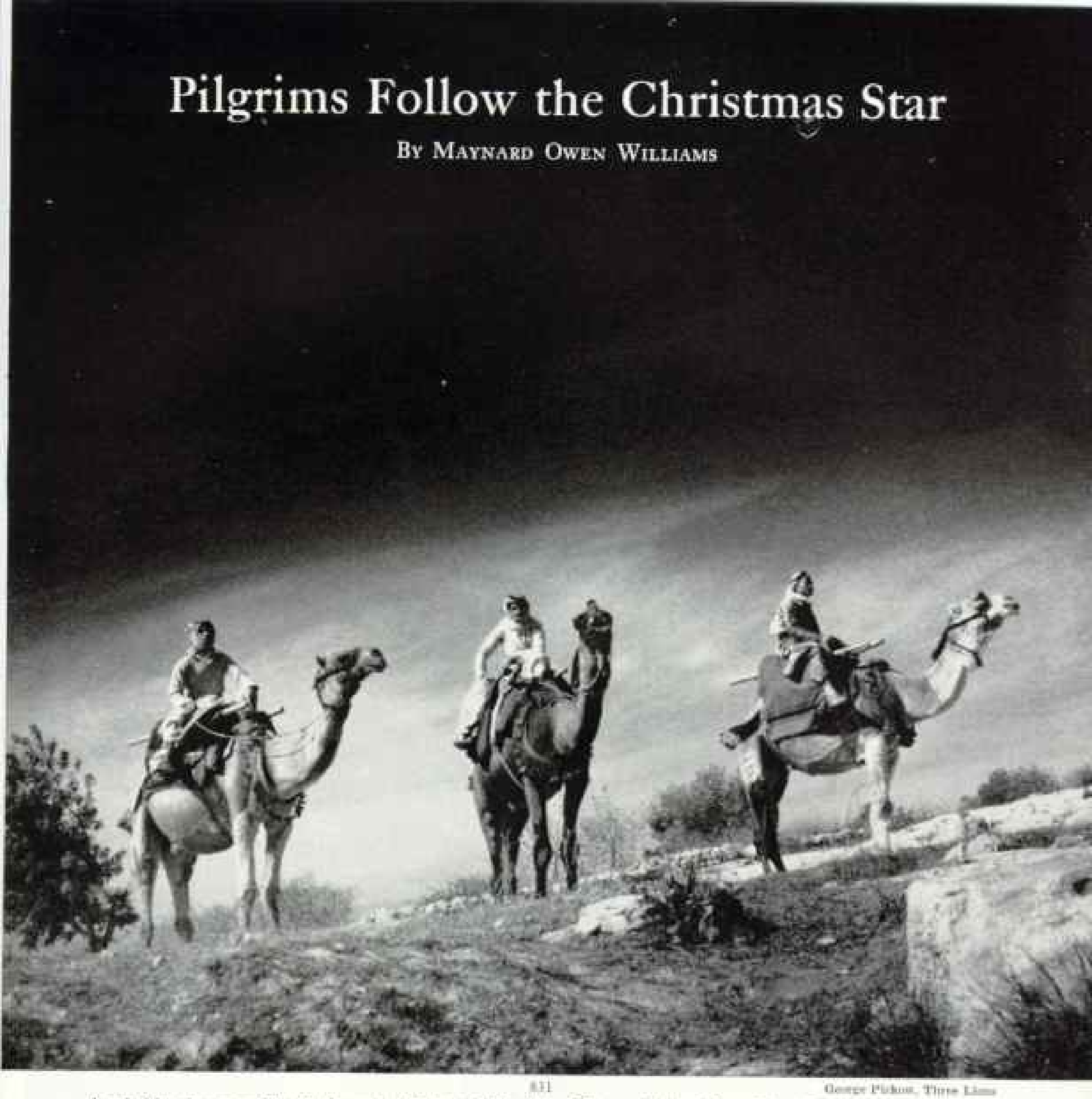
So he called his magician to utter incantations with the idea of giving them a salutary lesson. The magician uttered his formulas, but he did not gauge the power he possessed.

Every Yap sorcerer knows well that he must exert proper care in conjuring his magic lest it get out of hand. One typhoon he may conjure: perhaps, with impunity, even the second. But three or four, never.

This magician did, and brought about his own destruction. Yap people feel assured they know who he was—a man found dead, but unmarked, after the fourth typhoon passed.

Pilgrims Follow the Christmas Star

By Maynard Owen Williams



631 George Pickow, Three Lions

Arab Traders on Their Camels Call to Mind the Three Wise Men Who Rode to Bethlehem

AGAIN, on Christmas Eve, Christians make pilgrimage to the little town of Bethlehem, in the land of Ruth and Rachel, of Isaac and Ishmael, of David and Solomon. For nearly 2,000 years it has been revered as the birthplace of Jesus.

It is only five miles from the shiny star which marks the traditional site of the Christ Child's birth to Calvary. A scant five miles—yet they mark the span of the Saviour's life.

Since Old Testament times—for the tomb of Rachel lies beside this historic highway—the short road between Jesus' place of birth and the scene of His agony has run like a white ribbon along the rough backbone of Judaea.

Today roadblocks at the Israel-Jordan frontier halt traffic along this road, for the north end is in Israel and Bethlehem is in the Hashemite Kingdom of Jordan (page 841). Technically, Israel and Jordan are still at war. Grim reminders are concrete "dragon's-teeth" obstacles and mine fields beside the road, with red-lettered signs of warning in English, Hebrew, and Arabic.

Christmas Spirit Opens Barriers

But, just before Christmas, good will to men triumphs over mundane barriers. Then church dignitaries, diplomats, and officials from Israel cross no man's land, less than a third of a mile wide at this point, to visit the scene of the first Christmas and there celebrate the birthday of our Lord.

Those who go to Bethlehem from the walled city, in the Jordan-controlled part of divided Jerusalem, travel over a long new road which

S.12 W. C. Lowdermilk, U.S.D.A.

Infinite Toil Produced These Earthen Ribs Girding a Lebanon Hillside

Mountainous Lebanon relies heavily on terraces. Here barley and wheat, dotted with clumps of almond and fruit trees, grow amid the shells of neglected houses. The cypress-guarded castle, once the palace of a feudal lord, is now the summer home of Lebanese Presidents. The village of Beit ed Din sprawls to the right. Few of Lebanon's famous cedars survive; none grow here.

writhes like a pale serpent through the wilderness, without touching Israel (map, page 844).

From a spur of the Mount of Olives this route looks down on the majestic expanse of time-tinted walls which make Jerusalem "the Golden" (page 834).

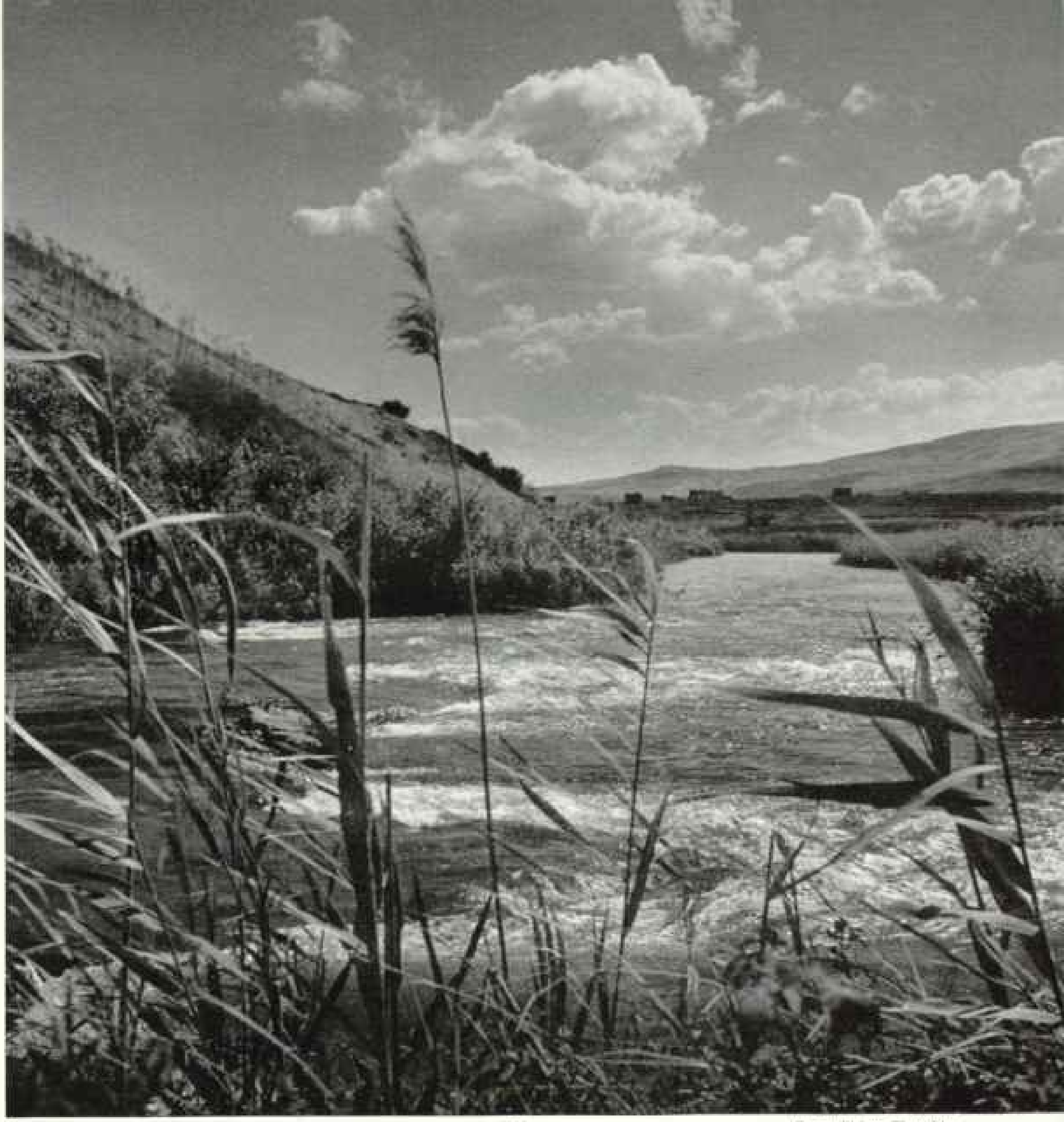
As it approaches Bethlehem, near the fields where shepherds watched their flocks by night, the road affords the finest possible view of the city of the Nativity.

From here, Bethlehem is a dream city of shining stone houses, set on a high Judaean hill. On feast days spotless headdresses brighten the shadows, and embroidery-stiff gowns borrow brilliance from the sun. Religious processions weave brocaded dignity by day, and under the stars they reflect candle glow on gilded crosses and censers.*

Bethlehem is largely Christian, and much of its commerce has depended on pilgrims.

Close to the Church of the Nativity is the

* See, in the National Geographic Magazine: "Bethlehem and the Christmas Story," by John D. Whiting, December, 1929.



833 George Pickow, Three Lions

Jordan's Waters Run Clear and Swift on Leaving the Sea of Galilee

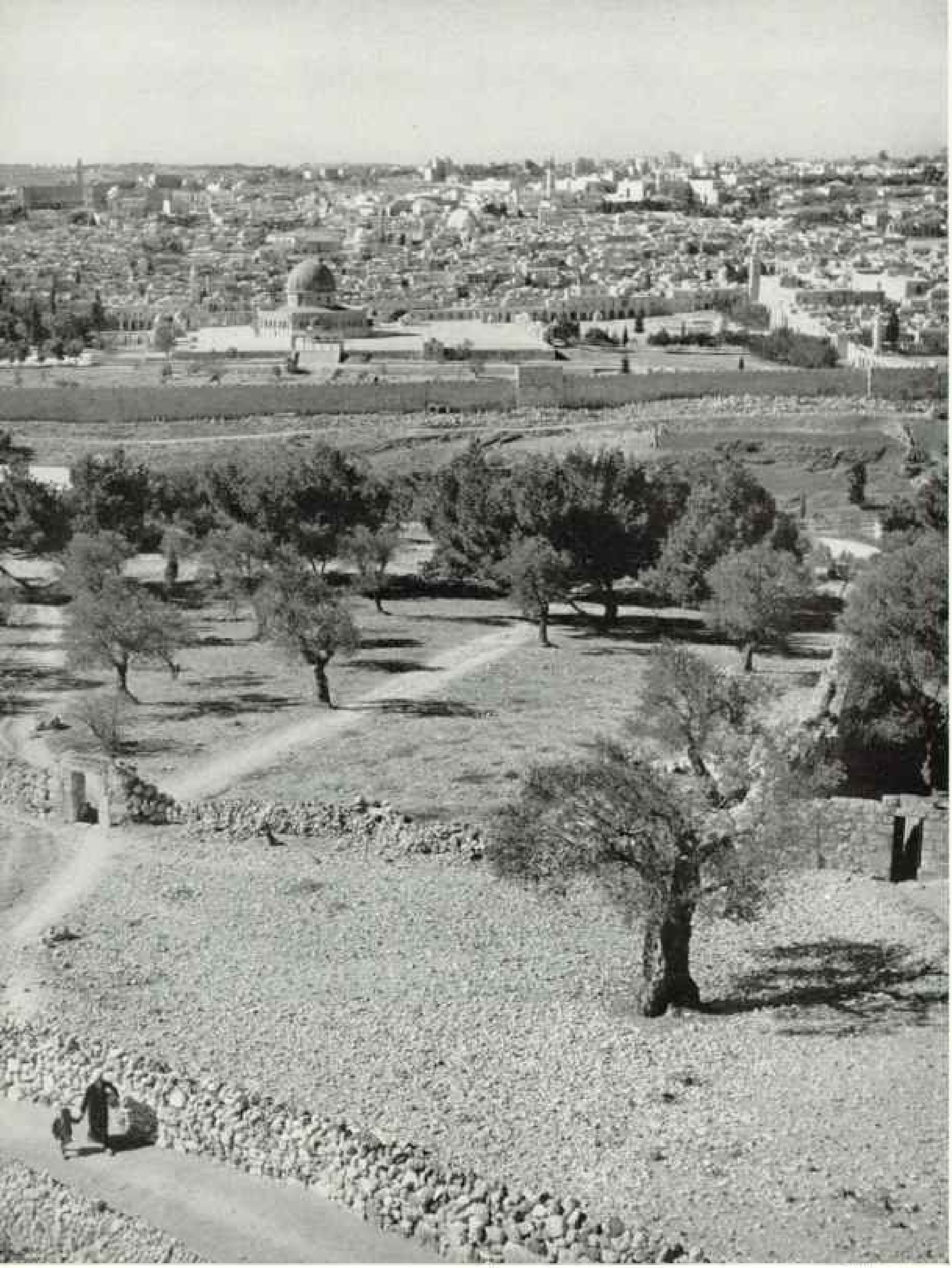
River Jordan winds and twists for 200 miles to cover the 65 miles between the Sea of Galilee and the Dead Sea. Lions once roamed the junglelike growth fringing its banks. Tradition says that Christ's baptism by John the Baptist occurred at Makhadat Hajla, a ford near Jericho. Thousands of pilgrims have gone to that spot to be baptized, to dip shrouds for their own burials, and to bottle Jordan water for christenings.

Milk Grotto where, according to tradition, a few drops from Mary's breast fell to the chalky floor. At the time of my first visit to Bethlehem, in 1912, thousands of Russian pilgrims plodded the dusty highways. Hundreds of these women from far away bought small tablets of chalky powder, supposedly from the grotto. Young mothers thought that by taking them they would assure their infants ample milk. Nowadays, less credulous visitors buy a few tablets as souvenirs.

A more tangible contribution to health is the Arab National Hospital, where three graduates of the American University of Beirut carry on healing in the tradition of Christ. Dr. Munir Musa, health director for western Jordan, studied medicine in Texas.

Many Make Pilgrimage to Nazareth

Like Bethlehem in Jordan, Nazareth in Israel attracts many Christian pilgrims. The city of Jesus' boyhood is now largely a Christian Arab city, patrolled by Christian police (page 836).



834 John Scofield

Gnarled Trees on Jerusalem's Mount of Olives Look Down on Herod's Ancient Wall

Among the olive groves on these stony slopes Jesus wept over Jerusalem. Dome of the Rock (just beyond wall) marks the spot where Abraham offered to sacrifice Isaac, and Solomon and Herod built their temples. Legend says Jeremiah hid the Ark of the Covenant under the Rock. Moslems believe Mohammed ascended to heaven from this sacred place. Abd el Melik's Mosque (miscalled Omar's) has occupied the grounds since the seventh century.

© Donald McLeish

Jan Wilga

"Give Us This Day Our Daily Bread"

The modern Ruth with her armful of grain and the modern Rebecca with her water jar add charm to landscapes which Jesus knew. And threshing floor, winnowing fork, and quern (hand mill) still provide daily bread in many parts of the Holy Land.

A Samarian harvest scene at right recalls the First Psalm, which likens the ungodly to "the chaff which the wind driveth away."

The woman below, grinding grain in the manner of the ancients, reminds one of the old Mosaic law (Deuteronomy 24:6) which forbade the pawning of a millstone, since it was indispensable.

The camel (above) is used for transport.

George Pickow, Three Lions

Maynard Owen Williams, National Geographic Staff

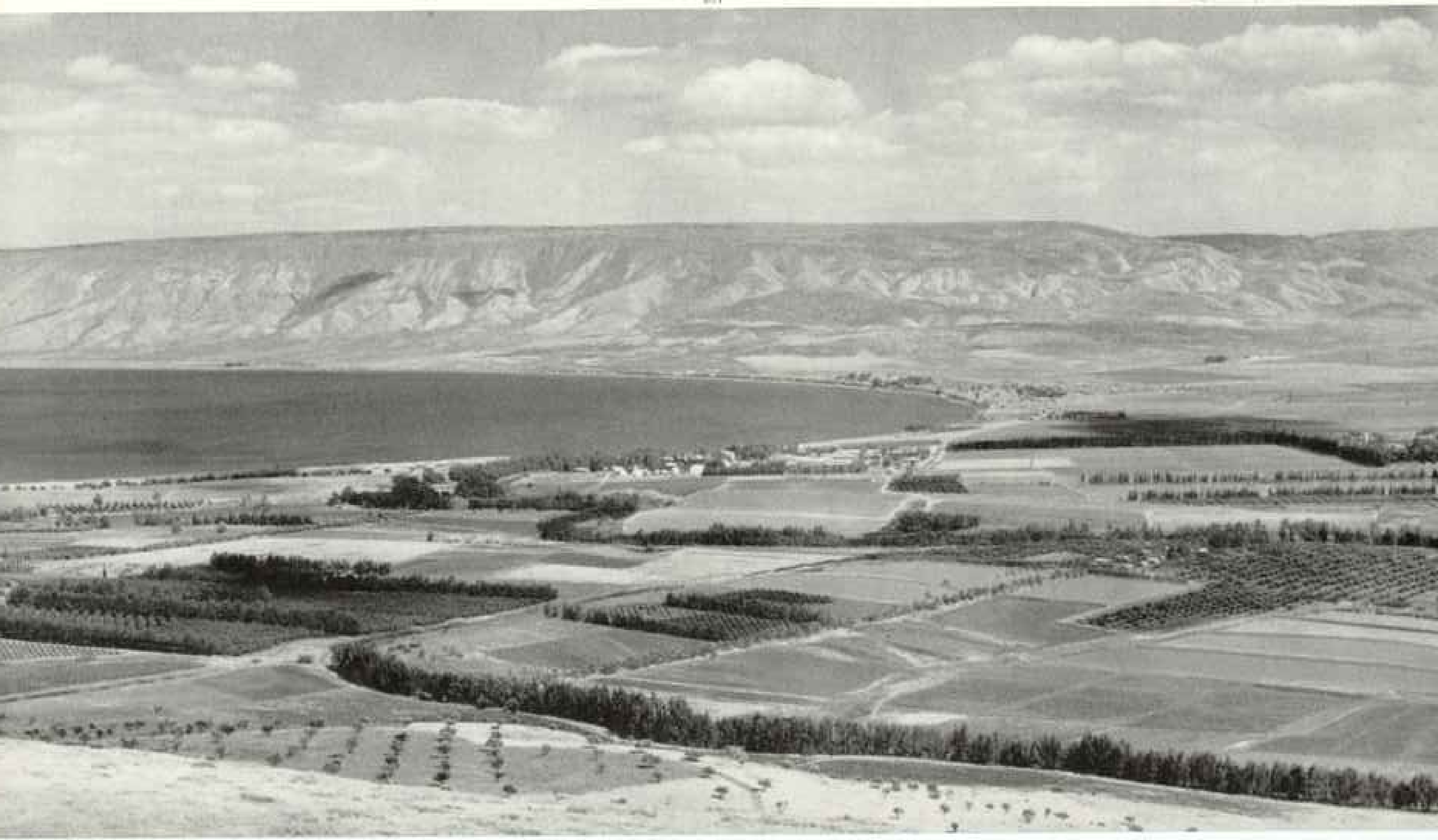
Few Jews Live Today in Nazareth, Which Drove Out Jesus. Arab Christians Now Populate the Town

Beyond the large hospice at center remains what many believe is the synagogue where Christ preached, "No prophet is accepted in his own country." Angry townspeople "led him unto the brow of the hill . . . that they might cast him down headlong. But he passing through the midst of them went his way" (Luke 4:24–30).

Galilee's Slopes, Reclaimed by Jewish Colonists, Bloom Again as in the Days When Christ Calmed the Waters

On the barren Gadarene hills beyond, Jesus cast out devils from the possessed, transferring them to swine, which "ran violently down . . . into the lake, and were choked" (Luke 8:26–33). A tree-lined avenue (right center) marks the River Jordan's lower course. Fresh-water Galilee stands 696 feet below sea level.

George Pickow, Three Lions



Sole Gentile among a busload of Jews guided by a Christian Arab of Nazareth, I went to the synagogue where Jesus amazed His fellow townsmen into crying, "Whence hath this man this wisdom . . . Is not this the carpenter's son?" (Matthew 13:54-55).

As Jesus then said, "A prophet is not without honour, save in his own country" (Matthew 13:57). Forgetting that Christ was of the House of David, a bright-eyed Jewess in our party asked, "What was Jesus doing in a synagogue?"

Beside the Sea of Galilee (page 837), I stood among a party of Jews at the tomb of Maimonides, skilled physician to Saladin, magnanimous Saracen foe of Richard the Lionheart. I knew Maimonides was a rabbi as well as a physician. But in Tiberias, when Jewish visitors called him "Moses ben Maimon," I did not recognize the name.

So conflicting currents of thought confuse one in the land of three faiths. But to one of any faith, the Holy Land is still holy. Here Jew, Christian, and Moslem have the geographical setting for their belief.

Bible Lands Beyond the Holy Land

Since the first Christmas Day, Christian teachings have circled the earth, far beyond the small area Jesus knew. Actually, few carpenters' sons in the Holy Land today wander as far as He.

But even if one includes the Egypt to which His parents fled in fear, and the indeterminate spot on the Syro-Phoenician coast which marked His northernmost ministry, the area known to Christ was a mere fraction of Bible Lands and only a tiny patch on the map of the world that now knows His name.*

The traditional site of the Garden of Eden, in Mesopotamia, is far away. So are the mountains of Iran, known to Esther and Mordecai. Mount Ararat, where Noah's Ark found harbor on a 16,946-foot mountaintop, looks into Russia from Turkey.

By land and sea, St. Paul traveled as far as Malta and Rome. It was in Antioch, near Musa Dağ, that men were first called Christians. The very word "Bible" comes from Byblos (now Jubeil, in Lebanon), for papyrus gathered near that Phoenician port was the material on which the Word was recorded (map, page 844).

All of southwest Asia has belonged to the Semites—sons of Shem. Hebrew, the unifying language of newborn Israel; Arabic, chanted by muezzins across the wide world of Islam; and Aramaic, which Jesus used in the Sermon on the Mount, are all Semitic tongues.

The political Greek and Roman name "Palestine" has gone from the map, giving way to "Jordan" and "Israel." Palestine was an incongruous name for the land of Samson and David. It came from the Arab name Filastin—Land of the Philistines, the enemies of Israel for whom blind Samson toiled. Their giant champion, Goliath, fell before the sling of a shepherd lad named David, whose six-pointed shield emblazons Israel's new flag.

Now the Philistine plain has blossomed with scores of *kibbutzim*, or collective farms, of newborn Israel.

Israel Tackles Its Water Problem

Since the cease-fire of 1948, some 700,000 Jewish immigrants from distant lands have entered the 8,000-square-mile expanse of Israel. Before they arrived, more than 700,000 Arabs had left, moving to Jordan or other Moslem lands near by.

Some Jews moved into the ruined homes, shops, and warehouses of the Arabs. But hundreds of buildings were destroyed, and many a Jewish immigrant has shivered or sweated in a tent while awaiting the permanent home he came so far to find.

Because of the international appeal of Zionism, and the funds which Zionists have raised, more attention is being given to the development of Israel than to that of any other part of the Near East.†

The underlying factor in many such plans is water.

In the Holy Land conditions would be better if land, like maps, sloped toward the south. The swamps of Hula, now largely drained, had too much water, even in the dry season. The deserts in the south had none, but are being brought under irrigation.

To impound water from the heavy winter rains and distribute it throughout the year and throughout the land will involve tremendous investment and skilled engineering. In this project the River Jordan will play a leading part (page 833).

Any complete solution demands the cooperation of Lebanon, Syria, and Jordan. Irrigation development in Syria and Iraq involves rivers which flow from Turkey. Jewish immigrants, Arab refugees, United Nations feeding programs, the Arab League, and Point Four aid may be combined in solving engineering problems as old as history. But political differences still act as a drag on any comprehensive plan.

The "unchanging East" is changing fast.

* See The Society's Map of Bible Lands, special 10-color supplement to the National Geographic Magazine for December, 1946.

† See, in the National Geographic Magazine: "Home to the Holy Land," by Maynard Owen Williams, December, 1950; "Palestine Today," by Francis Chase, Jr., October, 1946; and "Changing Palestine," by Maj. Edward Keith-Roach, April, 1934.

"Thou Anointest My Head with Oil"

In Jewish history, anointing the head was a high honor: "They anointed David king over the house of Judah" (II Samuel 2:4). The Psalmist tied this custom to the shepherd's use of olive oil as an ointment for his wounded sheep, a practice still followed in the Near East.

But along with modern textile mill and power plant, irrigation ditch and bathing beach, Bible Lands still furnish scenes that help the modern pilgrim to visualize and understand the life of Jesus' day.

Two circular slabs of basalt, with a handle in the upper one, are not as unimportant as they look. For across the Holy Land they provide, close to the fields where the grain is grown, the daily bread for which the Lord's Prayer begs.

With outside funds available, Israel is making studies and experiments of world-wide value. But the camel, the sickle, the quern, and the winnowing fork are not to be laughed at. Since long before the time of Christ they have enabled proud and independent men to wrest a living from arid, stony land (page 835).

Cars Shatter the Quiet of Gethsemane

It has ever been hard for pilgrims to adjust themselves to the realization of their dreams. Even amid the gnarled old olive trees in the Garden of Gethsemane (meaning Oil Press), the hum of motors on the Jericho road or the chatter of visitors thanking the guardian for tiny cards bearing olive leaves from the Garden may disturb one's contemplation.

In these days, when only an armistice exists between Israel and its neighbors, the ordinary irritations of travel are increased many fold. One is tempted to say, with Jeremiah: "Peace, peace; when there is no peace" (Jeremiah 6:14).

But in His farewell talk with His Disciples, after He had washed their feet, Jesus did not give himself up to lamentations. He said, "Peace I leave with you, my peace I give unto you" (John 14:27).

As one roams the old city where Jesus was crucified, this might seem a pious dream.*

Ordinary, dusty folk these, their faces browned with hard labor under a burning sun, their hands calloused by toil and their feet

* See "Pageant of Jerusalem," by Maj. Edward Keith-Roach, NATIONAL GEOGRAPHIC MAGAZINE, December, 1927.

Jewish Pilgrims Cross the Valley of Gehenna to Visit David's Tomb on Mount Zion

The shallow Valley of Hinnom (Gehenna), once the scene of child sacrifice to the god Moloch and later an ever-burning refuse heap, became to the ancient Jews a symbol of Hell. Today part of it is no man's land separating Arab and Jewish sectors of Jerusalem. Hidden behind the olive tree at left, the old walled city now lies in Jordan. David's tomb, which belongs to Israel, stands behind the trees at upper right.

by many a stony path up Olivet or down the Valley of Hinnom (Gehenna), toward the fertile gardens below the Pool of Siloam.

Shafts of light, piercing the gloom, blind one to the dark corners which are everywhere. Shadowy forms emerge from dim tunnels, their cloaks adding an air of mystery to their silent passing. The flare of blazing ovens on the sweaty faces of the bakers might be the flames of Inferno.

It takes imagination to picture these people as those whom Jesus knew and loved.

"Peace," a Greeting and a Hope

But all is not revealed to the eye. Gradually the ear adds its evidence. An English voice—"Goodbye." Why, that's "God be with you." An Arab—"Aleikum es-salaam." That's "And with you be peace." In Nazareth Christian Arabs, with the religion of Christ, the race of Mohammed, and the citizenship of Israel, say "Shalom" (Peace), as does any good Israeli.

Moses, Jesus, and Mohammed grew up in a hard, inhospitable land which could not daunt their faith. Around the world, Jews, Christians, and Moslems have carried their dreams of a Holy Land. As Christmas time draws near, the age-old dream is renewed.

Little children know the story. How mighty Augustus taxed this stubborn land. How honest, fearful citizens of David's city crowded into Bethlehem. How a weary mother laid her infant in a manger because they had no bed. Actually, Joseph and Mary were far more fortunate than those who had beds but could not sleep. For them, Christmas was only tax day.

The first angelic Christmas carol has burst the bounds of Bible Lands, to circle the earth, for it finds response in the hearts of men:

"Glory to God in the highest, and on earth peace, good will toward men."

To men the world around, this heavenly song, this deathless dream, make tiny Palestine the Holy Land.

Hashemite Jordan, Arab Heartland

Old and New Ways Meet and Mingle in the Modern Moslem Nation Which Contains Some of Christianity's Most Sacred Shrines

By John Scofield

With Illustrations from Photographs by the Author

IN THE 30-year-old Hashemite Kingdom of Jordan, the wheel prints of progress appear on even the "unchanging" Arabian desert. Roaming 1952-model Jordan, I called at the camp of Ali Haditha Kreisha, sheik of the Korshan section of the powerful Beni Sakhr tribe. The black tents of his nomads were pitched on grazing lands at the desert's edge near El Muwaggar.

A look of momentary disbelief must have crossed my face when I saw an American automobile parked beside his tent. The jeep station wagon contrasted strangely with grumbling riding camels hobbled a few yards away.

"It was presented to my father by the late King Abdullah," the sheik explained.

Later I found that automobiles are no novelty in the great Syrian Desert, of which these Jordan wastes form a part. At times, Bedouins of isolated areas in Saudi Arabia and Iraq have raided each other in Fords and Chevrolets.

Drive Cars but Hunt with Falcons

As we talked, Sheik Ali stood tall and erect, clad in a long, chocolate-brown robe and scarlet-checked headdress—the picture of an Arabia that is slowly disappearing. Master of hundreds of Bedouin warriors and a dozen times as many camels, he marched as a boy with Lawrence of Arabia—Col. T. E. Lawrence. Today he is one of the ranking tribal leaders of this fast-evolving Arab kingdom.

Inside the sheik's many-poled tent of goat hair, a servant blew up the fire by flapping the striped skirt of his dresslike garment and drew a long-spouted coffeepot onto the glowing camel-dung embers.

As we waited for the fragrant cardamom-spiced coffee, I saw a foot-high bird preening itself in the shadow of the tent. It was a *saqr*—from which comes our English word "saker"—a young falcon which these nomads of the Jordan desert train for hunting gazelle and grouselike *houbara*.

"A falcon must be trained as carefully as you train a man when you make him into a soldier," the courteous and hospitable sheik philosophized. "Slowly, very slowly."

Here was the contradiction of the Near East, a falcon, proud relic of a medieval sport, and an American automobile parked by the desert tent of a nomad chieftain. Nowhere is that contradiction between East and West, between ancient and modern, more evident than in Jordan, heartland of the Arab world.

This land of Jordan extends some 250 miles north and south, from arid hills that overlook the Sea of Galilee to a tiny port at the head of the Gulf of 'Aqaba. For much of its history-drenched length the meandering River Jordan lies within Hashemite Jordan's boundaries. So does three-quarters of the Dead Sea (map, page 844).*

Jordan Rich in Bible History

The entire western border abuts the new State of Israel. Much of what was once Palestine, including Jericho, Bethlehem, and the walled city of Jerusalem, is now inside Jordan's frontiers.

"Ours is a new country," a businessman of 'Amman, Jordan's bustling capital, told me, "and we have a new kind of problem. Someday we are going to fuse the traditional skills of the city-bred Palestinian with the vitality of the desert-born Arab of old Transjordan. Then watch us go!"

As I listened to this Arab talking of his people's future, I thought of their vigorous past. Thirteen centuries ago these same desert dwellers came out of the isolation of the hot Arabian peninsula; in 20 years they conquered the Persian empire and wrested not only Syria but Egypt and other African holdings from Rome's eastern empire. In the century following the death of Mohammed, whose religious teachings inspired the Islamic conquests, Arab warriors swept as far west as Spain.

Though a new country in the political sense, Jordan includes some of history's oldest sites.

In Jericho I watched Canadian archeologists Dr. and Mrs. Douglas Tushingham as they painstakingly uncovered two small, pathetic skeletons. The infants, they told me, were perhaps sacrificed during the construction of a neolithic temple, just then coming to light.

After further studies, expedition leader Kathleen Kenyon, eminent English archeologist, concluded that the pre-pottery neolithic culture of Jericho, the layer I saw peeled out of the hoary mound, included the remains of probably the oldest city known to man.

* See, in the National Geographic Magazine: "Geography of the Jordan," by Nelson Glueck, December, 1944, and "Canoeing Down the River Jordan," by John D. Whiting, December, 1940.

847 Pat Miller, Black Star

'Amman, Recently a Classic Ruin, Grows Like an Oil Town. Cars Clog Its Streets

Jordan's modern capital is a far cry from that ancient city which Romans called Philadelphia. Arab settlers from Palestine have invested their funds and pushed the population to nearly 180,000. Block after block of new houses leave the demand for space unsatisfied. Clock Square's shops sell foreign goods; its buses load passengers for Jerusalem and Damascus. Umbrellas shade diners in a roof-top coffee house (left).

The babies whose fragile bones lay beneath the yellow plaster floor of that long-forgotten temple in Jericho lived their brief lives about 7,000 years ago (page 846).

Walls of Many-layered Jericho

I asked archeologist Tushingham what characterized a city of 70 centuries ago.

"Community effort," he told me.

"Neolithic Jericho is the earliest walled city of which we have record. Its people worked together for the common defense and developed a real community."

So these crumbling mud-brick walls foreshadowed such 20th-century compacts as the United Nations and the North Atlantic Treaty Organization. Since Jericho's humble beginnings, men have learned increasingly the advantages of working together.

At Jericho, too, I saw layer upon layer of ancient walls in a pit dug by William L. Reed, director of Jerusalem's famed American School of Oriental Research. Far down I could see one mud-brick wall which had literally "come tumbling down."

I asked if this was the wall that had fallen before Joshua's trumpet blasts. "No" was the answer. This particular wall did not belong to the period in which Joshua lived.

Within a radius of a mile or two of modern Jericho lie two ancient sites. Deep in one of these were the neolithic layers I saw coming to light under the trowels of the Tushinghams. In another lies New Testament Jericho, the winter capital of Herod the Great.*

* See "The Ghosts of Jericho," by James L. Kelso, in the NATIONAL GEOGRAPHIC MAGAZINE, December, 1951.

843 Wide World

Desert Patrol Troopers of Jordan's Arab Legion Scout an Arid, Empty Land

Greeks, Romans, Crusaders, and Turks tried in vain to pacify the Bedouins, the desert's warlike tribesmen. But British-born John Bagot Glubb persuaded the nomads to put on Jordan's bright uniforms and police themselves. Raids which used to menace every man's life and flocks came to an end (page 848). Now the Legion guides water seekers and enforces the laws. Its men fought beside the British in World War II.

But in the shadow of the past the present cannot be denied. Camped about the mound in which ancient Jericho is slowly being revealed are thousands of Palestinian refugees, Arabs who fled their homes in what is now Israel. Given a subsistence ration by UNRWA —the United Nations Relief and Works Agency—a few of the refugees pick up extra piastres by working at the Jericho excavations during the winter digging season.

For most of Jordan's 458,000 refugees there is no Jericho to provide even temporary employment. In tent camps and improvised villages of mud-brick huts they sit and wait, hoping some day to return to their homes (pages 848-9).

Everywhere I went in Hashemite Jordan I was conscious of this side-by-side existence of ancient and urgently contemporary. Such contrasts have become commonplace in the lives of the Arabs, and nowhere are they more readily apparent than in Jerusalem.

Barricades Still Divide Jerusalem

When the cease fire of July 18, 1948, found the venerable city divided between Israel and Jordan, some utilities which previously served the entire city were no longer available to the Jordan, or Arab, part. Custodian of some of the holiest shrines in Christendom, Arab Jerusalem lacked electricity, adequate transport, even a water supply. A no man's land of mines and barbed wire had cut the Holy City in two.

In the four years since the creation of the State of Israel, Arab Jerusalem has had to overcome almost insurmountable obstacles. To provide a water supply, ancient springs

844 Drawn by Robert Northrop and Victor J. Kelley

Jordan, the New Hashemite Kingdom, Includes Part of Dismembered Palestine

Formerly Transjordan, a British mandate, the state gained complete independence in 1946. Four years later it acquired lands west of the Jordan valley and an 858,000 increase in population, some 458,000 of them Arab refugees from Israel. Lands east of 'Amman, the capital, are largely desert, but those to the west are fertile where irrigated. Gerasa, Karak, and Petra preserve old ruins.

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Jerusalem Barriers Lift; Pilgrims Enter Jordan. Cold War Ebbs on Christmas Eve

Shattered buildings in no man's land remind visitors that Israel and Jordan remain in a technical state of war. Armistice lines which have divided the city since 1949 leave most Christian holy places in Arab hands. On December 24, 1951, Jordan passed some 2,000 Christians through Mandelbaum Gate for a trip to near-by Bethlehem. Thirteen days later it welcomed Greeks celebrating their own Christmas (page 855).

in use during Christ's lifetime have been capped and channeled through modern pumping stations. Damage to hotels and shops has been repaired and residential sections have been extended. There is a cinema where, thanks to the magic of Hollywood's sound technicians, American actors speak fluent Arabic. Radios blare on power from a new generating plant near Gethsemane.

Yet the fact that Jerusalem is a divided city is never far from the visitor's mind. When I was there, rifle fire or an exploding mine was sometimes heard.

It is all very well to say *ma'alesh*—"never mind"—but one wishes desperately that peace would come permanently to these troubled lands.

The visitor to Arab Jerusalem can look across the narrow no man's land into Israeli Jerusalem from the wall at Jaffa Gate and see housewives of the new nation at their shopping. On the Jewish side of the city, Israelis can climb the shell-scarred tower of Notre Dame de France and look nostalgically toward the traditional Wailing Wall, or at old haunts in the empty Hebrew University buildings on Mount Scopus.

I went but once to the Wailing Wall, where pious Jews formerly congregated to bemoan the fate of their race and the destruction of

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Archeologists Dig 7,000 Years Deep into Jericho's Stone-age Beginnings

Jericho's age was already incredibly great in the 13th century B.C., when the Canaanite walls crumbled at the sound of Joshua's trumpets (Joshua 6:20). Its mound of debris has revealed the remains of 18 distinct cities at different depths. The neolithic section, roughly dated to 5000 B.C., had no pottery but did have city walls. Bones of two infants, possibly a sacrifice, were discovered beneath this temple (page 841).

their temple. But I found only laughing Arab children playing in the shadow of the great stones believed to be the remains of the old temple enclosure.

The holy city of Jerusalem invariably provides a shock of surprise for first-time American visitors, accustomed to seeing national relics enshrined in museums. True, one quickly realizes that the Holy City is an extraordinary living museum of the past and present, uniquely combined. The surprise is that there are no glass cases.

Scenes Like Those Jesus Knew

Here, around the corner from the Holy Sepulcher itself, are traditionally dressed village women squatting with baskets of eggs, as they must have done when Jesus walked these streets. Here, also, are donkeys and an occasional camel, driven along ways too steep and narrow to know wheeled traffic. Here, without so much as a change of name, is the *Malcuisinat*, or "Bad Cookery" Street, of the Crusaders.

All about are the sights, sounds, and smells of Jerusalem as Christ must have known them, and as they have continued to exist through crusades, wars, and social upheavals. Around this repository of the centuries, as if to protect it from time itself, are the massive walls built by Suleiman the Magnificent, partly on foundations dating from the time of Herod the Great.

For Christian Arabs of Jordan living near by, a daily or weekly visit to the Tomb of Jesus is a perfectly natural thing. After all, was not He too a Palestinian?

The visitor quickly acquires this same sense of participation in the timeless routines of this

venerable city. He bends low to enter the Holy Sepulcher itself. He walks down the same winding, unpaved path which Jesus followed on the first Palm Sunday.

As I did, he can watch for a moment while Arab workmen reconstruct the Pool of Bethesda, where Jesus healed the man paralyzed for 38 years, or peer into the gloomy recesses of the tunnel through which water was brought from the Fountain of the Virgin into the City of David.

At Bethlehem he can pull aside the painted, fireproof hangings to finger the ancient rock walls of the grotto in which, tradition says, Jesus was born.

Last Christmas Eve, thousands of Catholic and Protestant pilgrims to Bethlehem milled about under the lights in the main square, but most of the old Church of the Nativity was strangely dark and silent. The Greek Orthodox portions would remain unused until January 6, when Christmas Eve occurs according to the Julian calendar (pages 852, 854, and 855).

In the grotto beneath the church, however, myriad candles shone in commemoration of the anniversary of Christ's birth. A slow procession of worshipers filed into the narrow cave to pay homage before the silver star which marks the humble spot. Above the star a modern electric chandelier dimmed near-by candle flames with its incongruous light.

In the ornate chapel of the Franciscan Church of Saint Catharine, adjoining the Church of the Nativity, I counted representatives from nations around the world.

When the service ended, I made my way to a tiny Arab restaurant overlooking the crowded square, where we sang the traditional songs of Christmas Eve to the unfamiliar wheezing of an Arab Legion bagpipe.

Jordan Attracts Visitors from Afar

Despite its isolation—overland tourists must come from Beirut, Lebanon, via Damascus and 'Amman to reach Arab Jerusalem, or fly to Jerusalem Airport—visitors are the chief "industry" of Hashemite Jordan.

One American couple to whom I talked brought their automobile from Spokane, Washington, to Jerusalem via the Arctic Circle! In addition to a visit to one of the northernmost inhabited places in Finland, this adventurous husband and wife drove through Europe to Yugoslavia, Greece, and the Taurus (Toros Dağları) Mountains of Turkey. After Easter in Jerusalem they proposed to ship their car from Beirut to Alexandria, Egypt, and from there drive to Capetown and north along the west coast of Africa before returning home to the United States.

Not all of the Americans I met in Jordan were tourists. Kindly matriarch of Jerusalem's little group of American residents is Bertha Spafford Vester, once of Chicago, Illinois. This gracious, white-haired woman has devoted 60 years of her life to the people of Palestine. Her tiny, understaffed baby clinic ministers to as many as three hundred patients in a day. Somehow, no child is ever turned away.

Supported mainly by donations from the United States, the clinic and a baby home in the old walled city of Jerusalem draw the balance of their funds from the profits of the American Colony Hostel of Jerusalem. This foster home for Americans was a welcome oasis during all of the time I lived in the Hashemite Kingdom of Jordan.

How Jordan Was Born and Named

In its changes of name one can trace much of the history of Jordan as a modern nation.

Originally a dependency of the Arab government set up in Damascus after World War I, and then known as Transjordania, the country lapsed into disorder with the fall of the Arab government in Syria and the imposition of a French mandate over that country.

To straighten out Britain's Near Eastern interests, Winston Churchill was posted to the Colonial Office in 1921. One of his advisers on Arab affairs was Lawrence of Arabia, who had helped free the Arabs from Turkish domination.

A direct result of this Churchill-Lawrence partnership was a meeting in Jerusalem with the Emir Abdullah ibn Hussein, who was formally recognized by Britain as the ruler of Transjordan. In 1923 recognition as a nation came to this desert kingdom whose name meant "beyond the Jordan."

In 1946 Transjordan was renamed by royal proclamation and became the Hashemite Kingdom of Jordan. The title "Hashemite" refers to the Beni Hashem (Hashim), the family affiliation of the king, who traces his descent from Hashem, great-grandfather of the Prophet Mohammed.

When the State of Israel was proclaimed in May of 1948, following the UN-sponsored partition of Palestine, an area of more than 2,000 square miles, in which lie most of the holy places and revered antiquities of the Christian world, was "left over." Occupied by Jordan's colorful Arab Legion and other Arab forces during the Arab-Israel War, this area west of the River Jordan was annexed on April 24, 1950, by King Abdullah.

If Jerusalem, with its shrines sacred to three of the world's great religions, is the spiritual center of Jordanian life, 'Amman is its commercial heart. On its store fronts and in store windows are names familiar to every Ameri-

can: General Electric, Ford, Heinz, Kodak, Post Toasties, General Motors, Shell, Willys, Palmolive.

A few years ago 'Amman was a dusty, desert-edge village. Today Bedouin sheiks with golden daggers at their waists park sleek Buick convertibles on its crowded streets. In 'Amman shops I saw expensive German cameras and camel saddles, automobile parts and Bedouin sandals, antique rifles and Omega watches.

This capital of present-day Jordan was once Rabbath Ammon, the stronghold of the Ammonites, against whom David sent Uriah the Hittite to his death. Later rebuilt in Graeco-Roman style by Ptolemy Philadelphus of Egypt, it took his name. Today the Philadelphia Hotel stands opposite an almost intact Roman amphitheater.

'Amman has the insistent vitality of a frontier town. I felt at home immediately on Bedouin-crowded streets which reminded me of those of a brash, busy midwestern American town enjoying an oil boom (page 842).

Not in Jerusalem but here, in the momentary chaos of a city coming of age, lies Hashemite Jordan's challenge to the future.

Bright Skirts Make Popular Uniforms

The country's smartly uniformed, well-trained army is the famous Arab Legion. Once British-staffed, the Legion today has but a handful of non-Arab officers. Next to the forces of its many-times-larger neighbor Syria, Jordan's relatively tiny army of about 15,000 men is considered to be the best fighting force in the Arab countries.

To see a most colorful unit of the Arab Legion, I visited a desert patrol post at Qasr el Azraq.

To reach this isolated outpost in 1918, Lawrence of Arabia marched from El Muwaggar for two days. Guided by an armed Bedouin who sang wild desert chants as we sped across the roadless, flint-strewn waste, I covered the same distance by jeep in a few hours.

The unimposing little fort, which stands like a lonely toy in the desert, is garrisoned by a dozen of "Glubb's Girls," so-called because of their long-skirted riding costume. This tan and red uniform was suggested for the desert patrol by Arab Legion commander Glubb Pasha—Brig. John Bagot Glubb—to attract to its ranks the color-loving Bedouins of the desert.

"It worked like a charm," an old-timer of the Arab Legion told me. "At first the tribesmen wanted nothing to do with the government—even an Arab government. After the uniforms were issued, the desert patrol developed a waiting list. We discovered that the prettiest girls of the tribes would have none but our brightly dressed fellows for their lovers."

848

Glubb Pasha's wooing of these nomads of the desert onto the side of law and government brought peace to the Jordan wastes. A few hundred Bedouins accomplished something which Greeks, Romans, Crusaders, and Turks in turn had given up as a bad job.

At the time of my visit this year, there had not been a major intertribal raid—once the primary occupation and lifeblood of every able-bodied male Bedouin—since 1932. Thanks to the work of the Arab Legion's desert patrol, the lone traveler in Hashemite Jordan's "wild east" was as safe from molestation as a picnicker in New York City's Central Park (page 843).

Dinner with the Desert Patrol

Each desert patrolman has his own gentle, fawn-colored riding camel, to which he attends personally. At feeding time he sometimes spreads his own scarlet cloak on the sand as a "dining table," from which the fastidious animal delicately eats its ration of grain.

The men of the desert patrol still prefer to live in tents, and a "house of hair" is always pitched beside the tiny stone forts to which they are assigned. Here they gather to talk endlessly, entertain visitors from pass-

A Camel Boy Marches His Charges Past an Arab Refugee Camp near Nablus

Thousands of jobless Arab fugitives from Israel lead dreary lives in tented Jordan cities because they have nothing better to do than exist on United Nations charity and sit and wait for an opportunity to go home (page 843). Close to this spot the author watched the last of the Samaritans, descendants of the New Testament people, sacrifice seven snow-white lambs to their God. Fathers dramatically smeared the animals' gushing blood on the foreheads of their first-born; others marked it on the doors of their tents (page 851).

ing caravans, and drink innumerable cups of fragrant Bedouin coffee.*

Each patrolman wears a jeweled, silver-cased dagger at his waist. Many still cling to the braided pigtails which are the badge of the fighting man of the desert.

When I stayed for dinner at Azraq, two men were required to carry the huge copper tray of saffron-yellowed rice on which was heaped the cut-up meat of a whole boiled sheep.

It was the first day of Ramadan, the month of fasting, when Moslems neither eat nor drink during daylight hours. We waited outside the tent in the dusk until the first pale sliver of a new moon appeared; then we squatted around the three-foot dish and ate, using our fingers in the Arab fashion.

Azraq is rich with memories of the desert travelers who have approached Arabia's mysteries by way of the linked wells of the Wadi Sirhan. Lady Anne Blunt and Gertrude Bell camped near by, and Lawrence of Arabia inspected its crumbling 13th-century Arab fort.

In the littered courtyard of this basalt ruin, successor to an earlier Roman structure, I tried to puzzle out the worn inscription on a stone altar dedicated to the emperors Diocletian and Maximian, and thought of Lawrence's jest when he proposed in 1918 "to add a word in favor of King George the Fifth."

Crumbling Ruins in Desert Silences

Hashemite Jordan's arid east bank abounds in such off-the-beaten-track antiquities. To reach the ancient caravan center of Petra, a contemporary of the Jerusalem with which Jesus was familiar, the traveler must go to Ma'an, transfer to an automobile for the descent to Wadi Musa, and finally thread his way through the defile of es Siq on horse-

* See "Bedouin Life in Bible Lands," by John D. Whiting, NATIONAL GEOGRAPHIC MAGAZINE, January, 1937.

back before glimpsing the wonders of this long-lost Nabataean stronghold.*

Jarash—ancient Gerasa—once a proud Roman city of the Decapolis, can be reached by automobile from 'Amman in two hours over a road newly surfaced at the instigation of Jordan's Department of Antiquities.

'Amman itself, once Gerasa's sister city of Philadelphia, offers contrast with Roman ruins in the heart of the modern commercial district. Visitors park their cars beside Philadelphia's crumbling ruins and walk a few feet to enter 'Amman's largest hotel. Across the street Palestinian refugees live in chambers of the Roman amphitheater. Cyclists pedal disinterestedly by tumbled fragments of colossal statues. Hawkers offer Roman coins.

Far out in the roadless Jordan desert, hours from 'Amman, I saw the elaborate castle of Qasr el Kharana, probably built at the beginning of the 8th century. After twelve and a half centuries, the delicately carved plasterwork decorations of the deserted rooms remain almost untouched by time.

An hour eastward of Qasr el Kharana is Qasr 'Amra, an 8th-century stone hunting lodge. In the smoke-damaged murals of its great hall I found portraits of Roderic, last Visigoth king of Spain, the king of Persia, the Negus of Ethiopia, and the emperor of Byzantine Rome.

It was startling to see these lavish pleasure palaces of ancient rulers standing unattended and empty, preserved only by their isolation in the desert.

Ruwalla Bedouins Scorn Frontiers

In this part of Jordan, too, I saw the great nomad camps of the Ruwalla Bedouins. During their annual summer migration to the "Little Desert" of central Syria, northward-moving herds of the Ruwalla speckle the monotonous horizon for hundreds of miles. One of the most powerful tribes in all Arabia, the Ruwalla are estimated to own 350,000 camels.

These Spartan people, who can live for months on camel milk alone, scorn international frontiers. True wanderers, they drive vast herds across trackless grasslands of Jordan, Syria, Iraq, and far into Saudi Arabia. Only at the height of summer, when their tribal area is a shimmering, dun-colored oven, do these most independent of men grudgingly consent to bring their camps close to the houses of settled folk.

The Bedouins are not alone among Jordan's richly varied populace in preserving a way of life which dates back to Biblical times. In Samaria, north of Jerusalem, I found the survivors of the once powerful Samaritans still clinging to their ancient beliefs.

Within sight of Jacob's Well, where Jesus spoke to the Samaritan woman (John 4:5-26), I met the high priest of this remnant of a New Testament people. Amran Ishak is a tall, bearded man who guides the destinies of Hashemite Jordan's little community of Samaritans. Like many another educated Palestinian, he is an accomplished linguist, speaking English, Arabic, Hebrew, and reading the strange Samaritan alphabet in which their Scriptures are preserved.

Seeing a Samaritan Blood Sacrifice

Traditionally descendants of Babylonian colonists who intermarried with the Samarian Israelites not carried into Babylonian captivity, the Samaritans today number only about 300—237 in Nablus, in Jordan.

Like other minorities in the tolerant Near East, the Samaritans in recent years have been left undisturbed by their Moslem neighbors. Nowadays, priest Ishak told me, the chief problems facing his little flock are unemployment and the fact that the Samaritan community is slowly dying out because of the unwillingness of its members to marry outside their own group.

Differing from orthodox Hebrew belief, these descendants of the Israelites accept only the first five books of the Bible, the Pentateuch, as products of divine inspiration. They argue with accepted belief also in looking to Mount Gerizim beside Nablus as the true site of Abraham's attempted sacrifice of his son Isaac and thus as the proper place for the building of Solomon's temple.

High priest Ishak invited me to witness the age-old ceremony of the blood sacrifice, which the Samaritans celebrate each spring at an ancient stone altar on Mount Gerizim.†

Just before dusk the entire Samaritan community of Nablus—men, women, and children—plus many from Haifa who were allowed to cross the lines from Israel for the occasion, assembled for prayers. It was May 9. Chill clouds closed in on the 2,890-foot peak as the white-robed Samaritan priests commenced their scriptural readings.

To one side, huddled against the cold, were seven sacrificial lambs. Each was male, white, without blemish, and born in the month *Tishri* of the previous year. Mounted Jordanian policemen stood by to prevent accidental contact with non-Samaritans, which would have made the animals ritually unfit for the sacrifice.

A frenzy of expectation gripped the participants as the hour of sunset neared. Fires

* See "Petra, Ancient Caravan Stronghold," by John D. Whiting, National Geographic Magazine, February, 1935.

† See "Last Israelitish Blood Sacrifice," by John D. Whiting, National Geographic Magazine, January, 1920.

blazed beneath drums of boiling water in which the lambs would be fleeced. Logs glowed in the pit where the animals would be cooked for the Passover feast.

At a signal from the high priest, an attendant checked each lamb to see that it was male and free from blemishes, then handed it squirming into the arms of the man who would kill it.

The press of excited Samaritans became almost hysterical as they crowded about the ancient altar stones (Exodus 20: 24-25). Awaiting the moment of sacrifice, they set up an explosive chant of one repeated word:

"Kill! Kill! Kill! Kill!"

The priest finished reading, and struggled to keep his footing against the crush of Samaritans behind him. With a nod of the head he sanctioned the sacrifice.

Heavy-bladed knives fell. Blood gushed onto white garments. Men dabbled fingers in the blood and smeared it in wide marks on the foreheads of their first-born. Others ran with gory hands to mark with blood the doorways of their tents.

851

This Good Shepherd Wears a Western Coat

Gently an Arab herdsman bears an injured sheep into camp between 'Amman and Salt. Typical of his changing country, he has discarded his Arab robe for a castoff jacket but clings to native headdress, good protection against the sun or cold.

The excitement gradually subsided as the carcasses were cleaned, fleeced, and placed on poles to cook slowly over the embers. It was midnight, long after I had left the chill mountaintop, when the Samaritans ate their Passover feast according to the Lord's instruction: "with your loins girded, your shoes on your feet, and your staff in your hands; and ye shall eat it in haste" (Exodus 12:11).

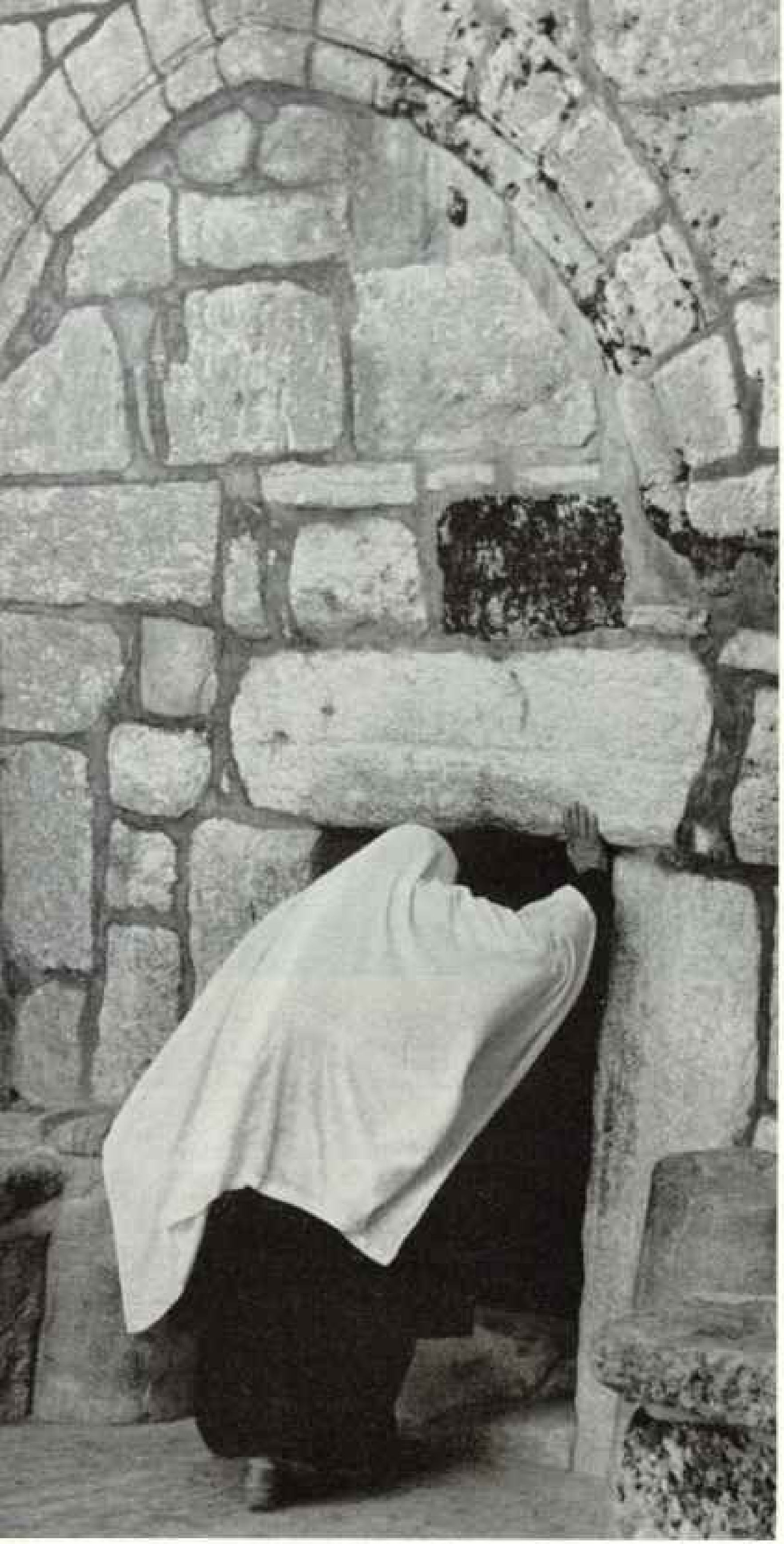
A favorite outing for Americans in Jerusalem, always reserved in the heat of summer for brilliantly moonlit nights, took me many times from the Holy City's nearly 2,500-foot elevation to the minus 1,286 feet of the Dead Sea. Here bathers can float awkwardly in the unbelievably saline water of this lowest point on the earth's surface, and then rinse in the bubbling fresh water of 'Ain Fashkha on its shore. The water of this year-round spring teems with tiny fishes, which quickly die if they venture down its rushing overflow into the bitter sea a few feet away.

I tasted the water of this huge reservoir of chemicals in solution. It was like a dose of Epsom salts.

No wonder! I learned that the Dead Sea contains about seven times as much salt as ocean water. The total mineral content of this 50-mile-long inland sea is estimated at forty-two billion tons, of which more than half is not common salt but magnesium chloride.

Precious Scrolls Revealed by Chance

It was high on the cliffs overlooking the northern end of the Dead Sea that one of archeology's most sensational finds of recent years was made. Here in March, 1952, a joint United States-French-Palestinian expedition systematically investigated about forty



852

A Christian Arab Enters Bethlehem's Church of the Nativity

Tradition says Persian conquerors spared the church because they saw their own people in a mosaic picturing the Adoration of the Magi. Masons long ago narrowed the entrance to admit only one person at a time.

caves in the area which, five years before, had yielded the famous "Dead Sea scrolls."

These leather and parchment documents, one of which is a complete text of the Hebrew Book of Isaiah, were discovered early in 1947 by shepherds of the Ta'amira Bedouins. One story is that these tribal youngsters were "chunking" stones into a cave opening high in the cliffs on the edge of the arid Judaean plateau. Hearing a rattle which proved to be that of breaking pottery, they investigated and found among the broken potsherds eleven priceless Hebrew scrolls. These scrolls had been carefully wrapped and placed in tall clay jars, well sealed for safekeeping.

Later research indicates that both the scrolls and their pottery containers date from the period of the last two centuries before Christ and the early part of the first century of the Christian Era. They are thus a thousand years older than any previously known examples of complete books of the Bible.

This year the joint expedition made a find which may conceivably dwarf even that of the Dead Sea scrolls in significance.

Beneath the dirt floor of a cave not far from that which once contained the 1947 scrolls, Professor Reed discovered broad, loosely rolled strips, written in Hebrew square characters of the time of Christ on sheets of pure copper. Together they measure about eight feet. Nothing like them has ever been found in the Holy Land.

I asked Joseph Saad, of the Rockefeller-financed Palestine Archaeological Museum, if

anything was known of the contents of these mysterious metal scrolls.

"Only that they are contemporary with the life of our Lord," he told me. "We can assume that much from the character of the writing. Anything else must wait until they can be unrolled. So far we have found no one willing to take the chance."

Archeologists, tackling age-old mysteries with the newest of science's tools, may find a method of unraveling this teasing mystery without damage to the precious scrolls. In the meantime, visitors to Jerusalem's museum can only guess at the contents of these fragile rolls of corroded copper, lying on cotton in their museum case.

Monks Who Know Utah and Nebraska

For centuries Palestine's rugged valley of the Jordan has attracted men of a monastic turn of mind. I visited one Greek Orthodox monastery perched high on a mountain face above Jericho. There, in a tiny chapel, a brother gravely showed me what he said was the very rock on which Jesus sat during His temptation in the wilderness as described in Matthew 4: 1–4.

813

Greek Monks of Mar Saba Cherish Skulls of Three Martyrs

Mar Saba's monastery clings like a pine tree to a cliff in the Wilderness of Judah. Here St. Saba, a fifth-century holy man, dwelt in a cave shared with a tamed lion. These boxed skulls belonged to monks slain A.D. 614 by Persian warriors of Chosroes. Brothers entering the chapel kiss the relics.

Another of these isolated Greek monasteries lies at the bottom of the Grand Canyon-like Wadi el Qilt, between Jericho and Jerusalem. To reach it, I followed a still passable Roman road over which Jesus perhaps walked on His way to Jerusalem, and then clambered down steep, foot-wide paths carved patiently into the faces of sheer vertical cliffs. A misstep would have pitched me onto the rocks hundreds of feet below. Even donkeys are not sure-footed enough to be trusted on these tortuous approaches.

Unique treasures of Byzantine art are preserved in the chapels of some of these wilderness retreats. Ancient Mar Saba, hidden in the dry Judaean hills, is one of the few religious structures of its age to have survived the upheavals of this chronically troubled land. Though but 22 monks are left where once were hundreds peopling its honeycomb caves, Mar Saba's monastery chapel still guards treasures of ecclesiastical art left there for safekeeping during its 15 centuries of existence.

At Mar Saba I was greeted in my own language by Father Kyrilos, who told me his life story while we ate "English po-tah-toes" and fried eggs. He was a machine gunner during the Greek-Turkish War, and a railroader in Utah. To prove it, the bearded patriarch showed me yellowed photographs of himself wearing the pleated "ballet skirt" and turned-up shoes of a Greek *evzone*, and chanted in their proper order the railroad stops between Salt Lake City and Grand Junction, Colorado.

It is not unusual to meet these Greek monks

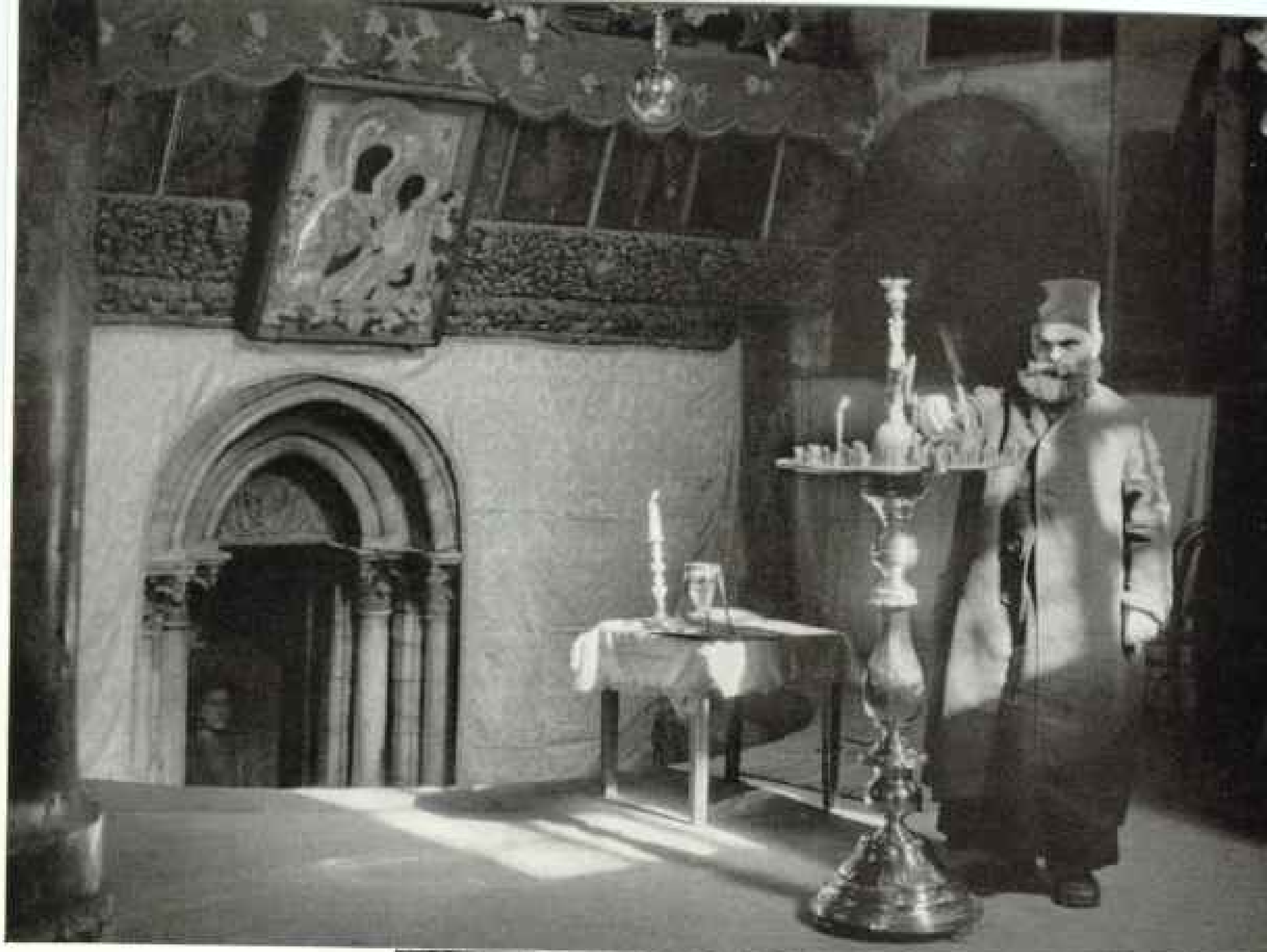
834

In Bethlehem's Church of the Nativity, Shafts of Light Fall Like a Benediction

The fortresslike church covers the grotto revered as the place where the Christ Child was born in a stable. Little altered for centuries, the edifice stands as an example of early Christian architecture.

Monks of several sects tend the church (opposite). In the last century they contended so bitterly over custody of the various shrines that Turkish authorities separated them with lines of demarcation and arrested trespassers. Arabs now guard this Christian spot, for Bethlehem lies in Arab Jordan.

Here a Greek Orthodox priest looks into the south transept, where a ruined mosaic shows Christ's triumphal entry into Jerusalem.



Greek Priest Lights Bethlehem's Candles

This door in the Church of the Nativity admits pilgrims to the grotto (right), traditional scene of the birth of Jesus. The priest, one of the Orthodox monks attached to the church, lit the candles last January 1 in preparation for Christmas services January 7, the Julian calendar date celebrated by the Greek Church in Bethlehem.

→ Incongruous electric lights brighten the Chapel of the Manger, believed to be the very spot where the new-born Jesus lay on the world's first Christmas morning. Brocaded hangings cover the walls to prevent visitors' prying away souvenir stones.

A reclining image of the Child is attended by a Franciscan priest from the near-by Church of St. Catharine. Each Christmas morning the image is carried in solemn procession from St. Catharine's to the chapel, there to remain until the Feast of Epiphany (page 847).

who have forsaken American farms and industry for the simplicity of an Orthodox monastery in the Holy Land. One of the genial Greeks who officiates at the Church of the Holy Sepulcher surprises American visitors to Jerusalem with his knowledge of Nebraska, where he spent 20 years as a farmer.

In stark contrast to the mellow age of Greek establishments in the Holy Land are the new, almost clinically bare buildings of the Trappist fathers at Latrun. Although they are famed for their vows of silence, I found many of them willing and able to talk to visitors.

Latrun's kindly superior, Father Elie Corbisier, was a commando chaplain with the British forces before coming to this quiet retreat, which is built over a ruin supposedly marking the site of the birthplace of Dismas, the Penitent Thief.

He showed me the cellars where the famed Latrun wine is made. I saw row upon row of enormous wooden casks lying on their sides.

"There is no market for our wine these days," he told me sadly.

Jordan-Israel Border Splits Monastery

Father Corbisier took me onto the wide stone porch of the monastery's main building. From its railing I could look across Israel's fertile plain to the rust-colored line of sand dunes at the Mediterranean's edge.

"Some of the monastery lands are here in Jordan," he said, waving an arm behind his back. "Most of them are in the no man's land between us and Israel."

The Trappist monastery, as luck would have it, stood on the edge of the fighting lines as they existed when the 1949 armistice was signed between Israel and Jordan. The monastery buildings and a few of the fields remained in Jordan. The best lands, however, are either in the no man's land which in places still separates the two countries or, in one instance, in Israel, where the fathers can only look longingly at them from the high monastery porch.

I asked Father Corbisier what he thought the outcome would be. He shrugged his shoulders in a Gallic gesture of uncertainty.

"Perhaps someday the line can be adjusted so that we can use our lands freely again.

"Actually," he went on, "our problem is minor compared with some. In 1949, when the armistice demarcation lines were drawn between Israel and Jordan, villagers were separated from their fields, orange growers from their groves, crossroads hamlets from their wells. I know of one case in which a village was cut in half by the line. It exists that way to this day.

"It's a mad situation," he concluded, "but that's how it is."

Jordanians Refuse To Be Discouraged

In a sense, Father Corbisier's remark sums up the way it is today throughout the Kingdom of Jordan. But the people of Jordan, undiscouraged, have gone right ahead with the business of forging a stable, 20th-century Arab nation out of the bits and pieces which chance has placed in their hands.

Jordan's present king, 17-year-old Hussein, was a student at Britain's exclusive Harrow when he was called to the throne last August following the abdication of his father, Talal, after a one-year reign. Now studying at Sandhurst, he is preparing for the time when he will rule Hashemite Jordan.

Much has already been accomplished, but a task of staggering proportions looms ahead. East bank must be reconciled with west bank, Bedouin with Palestinian. Minorities ranging from a handful of Samaritans to whole villages of Christian Arabs must be fused into the predominantly Islamic pattern of Jordanian life.

Industries must be developed in a country woefully short of natural resources. The problem of the "men who came to dinner," Jordan's 458,000 refugees, must be faced. Water supplies must be developed, soil conservation practiced intensively, if the land is ever to feed its people.

Hopeless?

Don't mention the word to a Jordanian.

All they need, he'll tell you, is a little luck to go with the rich combination of native ability and desert vitality which are theirs when east and west banks of the ancient Jordan fully realize their new partnership.

The promise of old Jericho's community walls may yet find a fruition in this Near Eastern test tube of Biblical cultures and 20th-century contradictions which is the Hashemite Kingdom of Jordan.

Notice of change of address for your NATIONAL GEOGRAPHIC MAGAZINE *should be received in the offices of the National Geographic Society by the first of the month to affect the following month's issue. For instance, if you desire the address changed for your February number, The Society should be notified of your new address not later than January first. Be sure to include your postal-zone number.*

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In Mexico The Society and the Smithsonian Institution, January 16, 1939, discovered the oldest work of man in the Americas for which we have a date. This slab of stone is engraved in Mayan characters with a date which means November 4, 291 B. C. (Spinden Correlation). It antedates by 200 years anything heretofore dated in America, and reveals a great center of early American culture, previously unknown.

On November 11, 1935, in a flight sponsored jointly by the National Geographic Society and the U. S. Army Air Corps, the world's largest balloon, *Explorer II*, ascended to the world altitude record of 72,395 feet. Capt. Albert W. Stevens and Capt. Orvil A. Anderson took aloft in the gondola a ton of scientific instruments and obtained results of extraordinary value.

A notable undertaking in the history of astronomy was launched in 1949 by The Society in cooperation with the Palomar Observatory of the California Institute of Technology. This project will require four years to photomap the vast reaches of space, and will provide the first sky atlas for observatories all over the world.

In 1948 The Society sent seven expeditions to study the sun's eclipse on a 5,320-mile arc from Burma to the Aleutians.

The National Geographic Society and the Royal Ontario Museum in 1951 explored and measured newly found Chubb meteor crater, 13,500 feet in diameter, in northern Quebec.

The Society granted $25,000, and in addition $75,000 was contributed by individual members, to help preserve for the American people the finest of the giant sequoia trees in the Giant Forest of Sequoia National Park of California.

One of the world's largest icefields and glacial systems outside the polar regions was discovered in Alaska and Yukon by Bradford Washburn while exploring for The Society and the Harvard Institute of Exploration, 1938.

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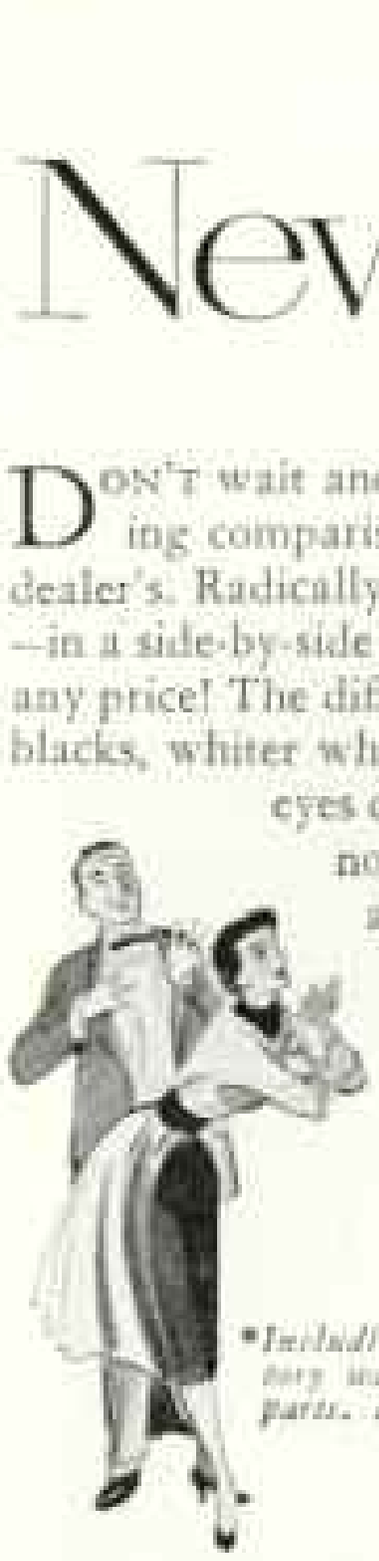

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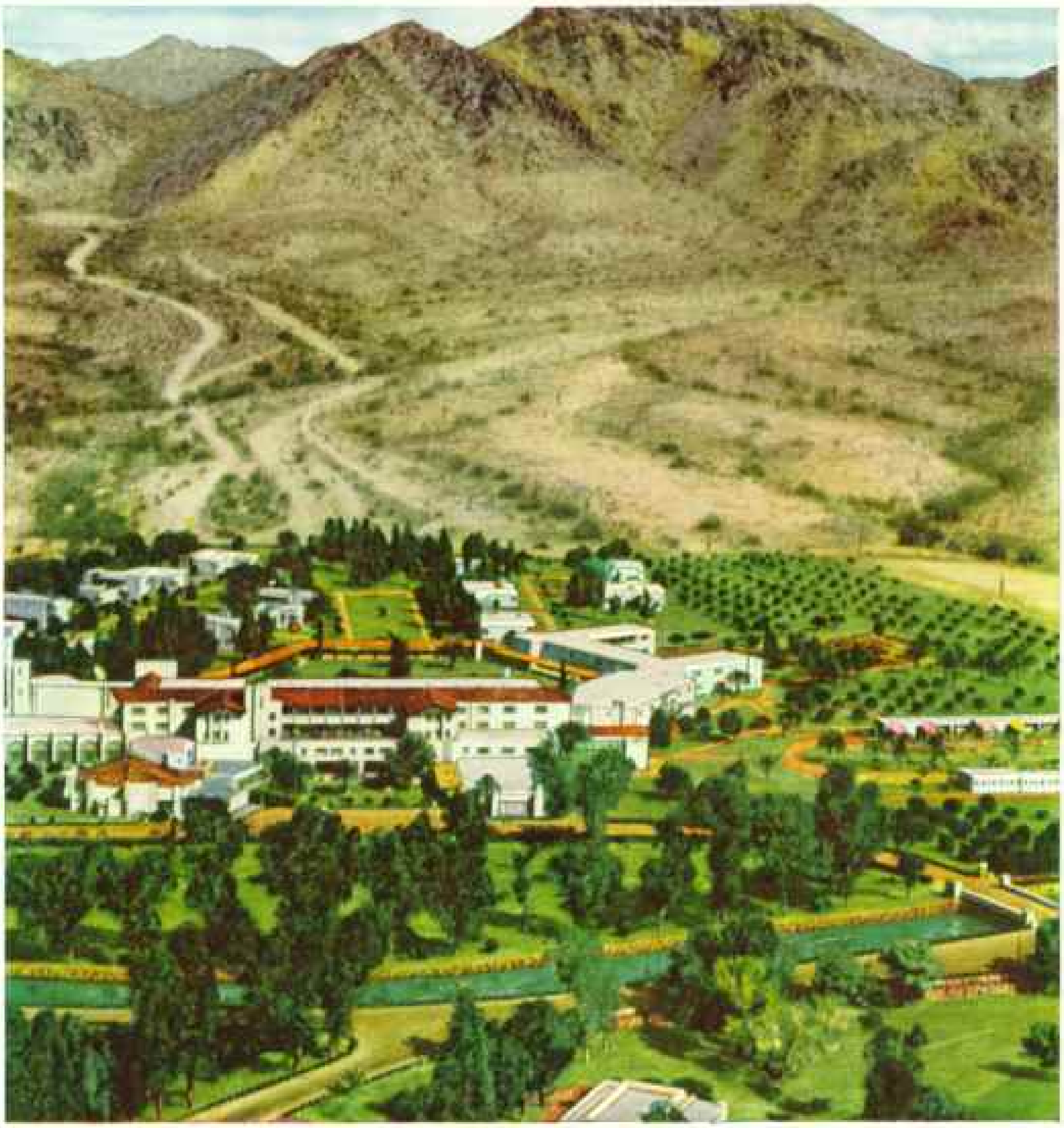

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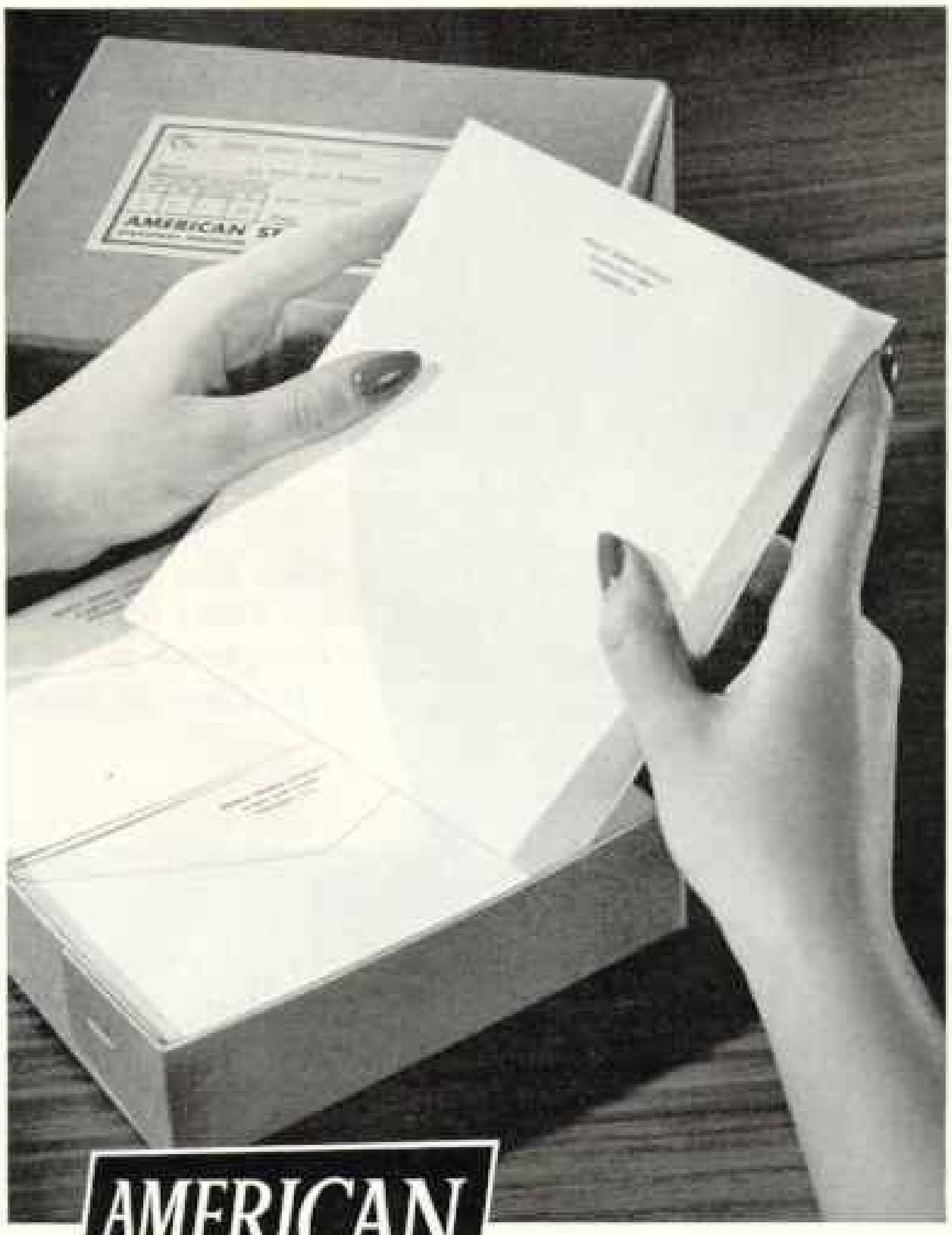

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• • •

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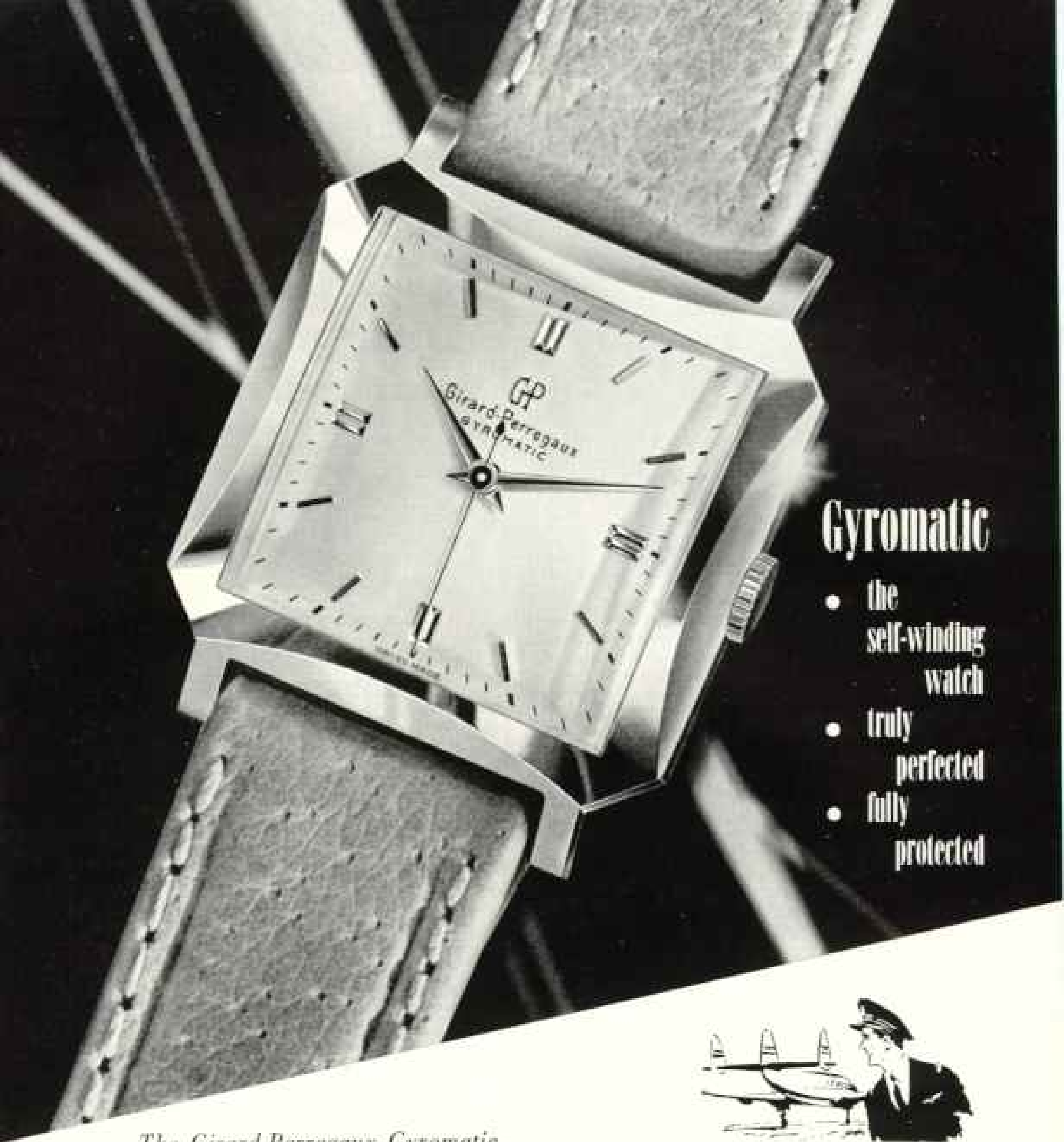

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STYLING THAT INFLUENCES YOUR CHRYSLER-BUILT CAR

From the dramatic cars on this page — each an example of creative styling and engineering — come advances that appear in every Chrysler Corporation car.

Chrysler designers and engineers developed the K-310, the C-200 and the new Chrysler Phaeton to express certain ideas of construction and styling—to put to the test of steel and fabric their newest, most promising automotive developments. A superior motor car evolves; it does not suddenly come into being: these graceful, pleasing designs, and the lessons learned perfecting them, are reflected in the creation of your Plymouth, Dodge, DeSoto or Chrysler.

These, therefore, are "idea cars" — expressions in line and in form of the imagination always at work at Chrysler Corporation. Exciting outside and inside, they reflect continuing Chrysler principles—that beauty, in an automobile, follows function, and that car designs can best be created by designers *and* engineers, working together.

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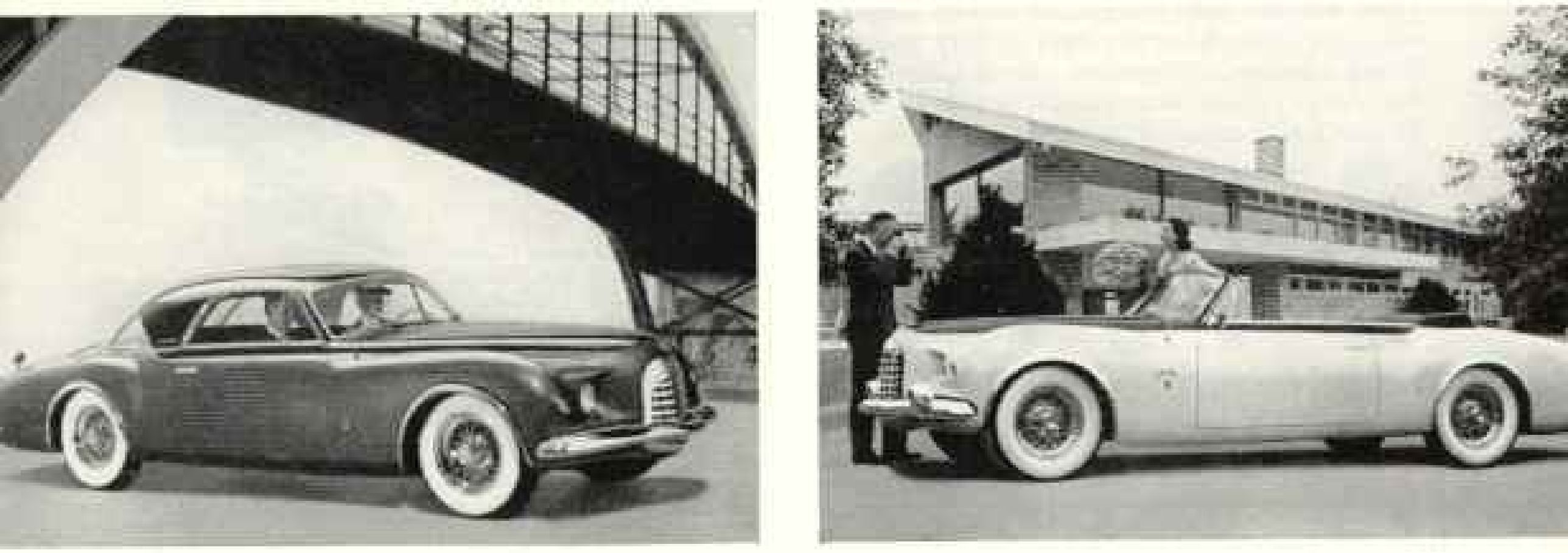
THE K-310, designed and engineered by Chrysler and handcrafted by Ghia of Turin, Italy. Only 59" high, with a wheelbase of 125½", it is designed to use the Chrysler FirePower V8 Engine and full-time Power Steering. This "idea car" represents an entirely new American theme in motor car functional styling.



The C-200, designed by Chrysler and handcrafted, like the K-310, by Ghia of Turin, Italy. It is powered by the Chrysler FirePower Engine and its brakes are the new, exclusive Chrysler self-energizing disc type. The handsome chrome-plated 17" wire wheels combine lively sports car styling with practical brake-cooling design.

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Travel Iron

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**Manufacturer's recommended retail or Fair Trade price.*

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On whichever French Line ship you journey — the luxurious 51,850-ton *Liberté* or the celebrated *Ile de France* — you'll find the settings exquisite, the service incomparable. The sun-warmed decks, the relaxing sports, the entertainment, the fabulous cuisine, the excellent wines, all contribute to make your voyage a romantic adventure. Plan your voyage now, during the thrift season. French Line, 610 Fifth Ave., New York 20, N. Y.

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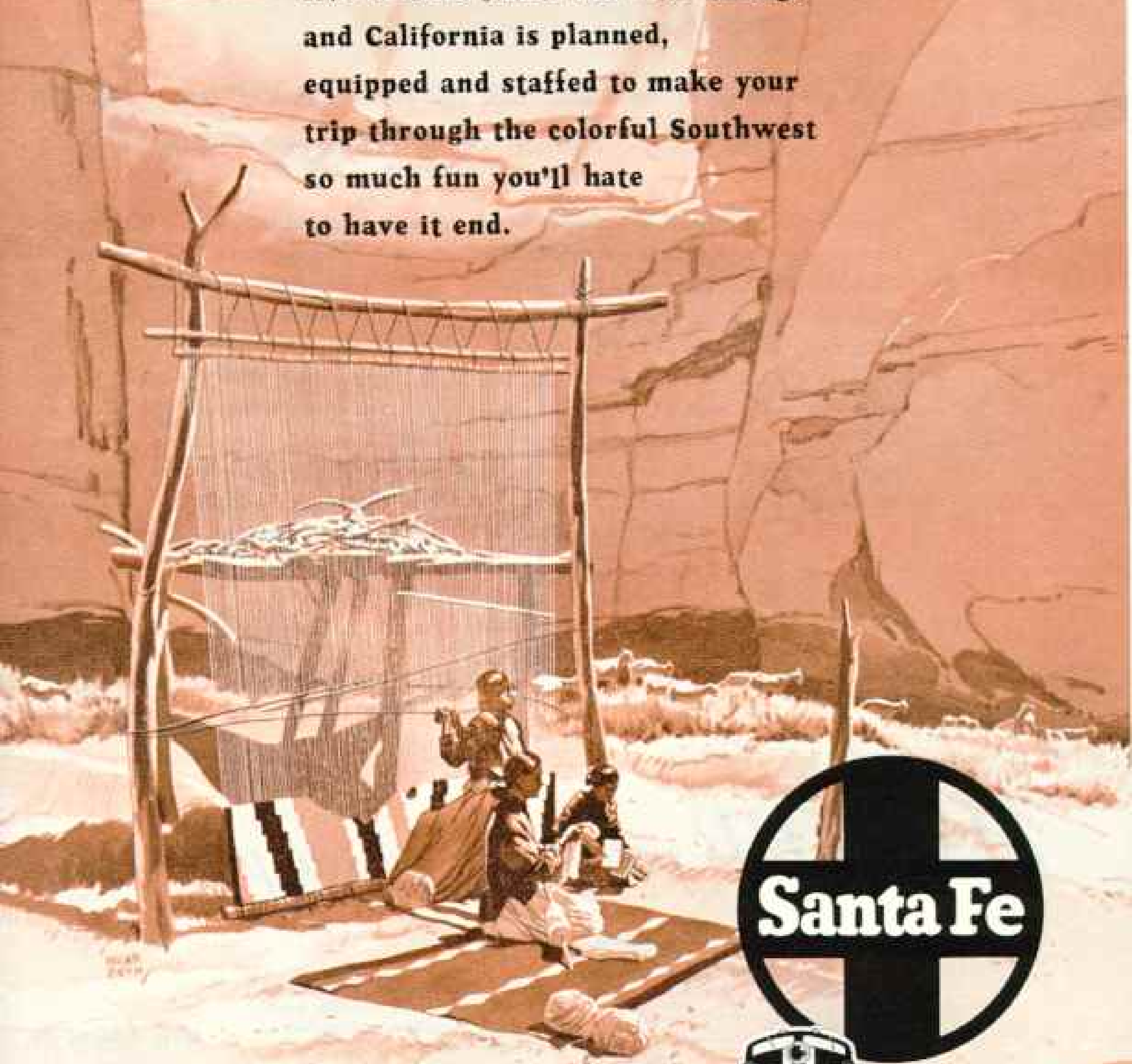

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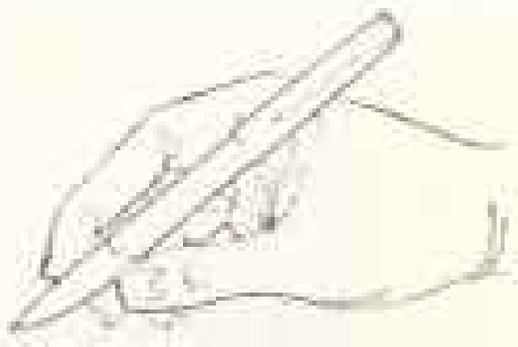

More Parker pens...more prices

Gift choosing is so easy! See all the newest Parker Pens at your dealer's now. **$3.50** ***to*** **$19.75** ***and up***

No need this year to slight a single name on your gift list. For each—regardless of what you wish to spend—there is a beautiful, instant-writing Parker Pen. Seven exceptional style and price groups in all.

These are the famous smooth-gliding pens that make writing as easy as conversation. Through advanced Parker designing they eliminate the weaknesses of so many others.

The New Parker "51", for example, contains no rubber to fail. And there is only one moving part. The whole mechanism is simplicity itself. Actually, there is no known limit to the life of this pen.

Your gift problems this Christmas are the easiest ever. For the world's most-wanted, most-welcome gift pens are ready to make your dollars go farther. See your Parker dealer soon! The Parker Pen Company, Janesville, Wisconsin, U. S. A., and Toronto, Canada.

New Parker "51" is decades ahead in design. Even the last drop of ink writes a smooth skip-free line. Both "51" and "21" Pens "write dry" with Superchrome Ink. No blotter is ever needed. They can, of course, use any good quality fountain pen ink.

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New Parker "51" Custom. Slim regular (shown) or slimmer demi-size. Pen and pencil set, $29.75.

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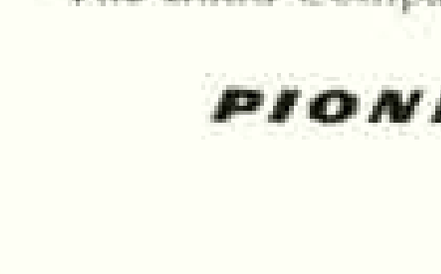
GOLDEN YEAR FOR *Nash*



This year, Nash Motors celebrate their fiftieth anniversary. They have been our customers, for steel body parts and wheels, since 1913.

In offering our felicitations, we cannot refrain from expressing admiration for that whole group of pioneers, among whom the founders of Nash were leaders, whose vision, courage and ability developed the automobile from a thing of ridicule and contention to a position of indispensability to our personal, commercial and national welfare.

The life of a pioneer in business, as we have reason to know, is sometimes difficult, but never dull. We first discovered it when trying to sell the idea of an automobile body built entirely of steel. Next with steel wheels for highway vehicles of all kinds. And later, the streamlined, all-stainless steel railway passenger car, the railway disc brake, and RDC, the rail diesel car which is revolutionizing railway passenger service.

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He'll start smiling, and keep *on* smiling every time he shaves, when you give him a new Remington 60 DeLuxe. No more soap or blades to buy—no more time-consuming muss or annoying nicks and cuts! The smooth contour glide of *six* extra-long Blue Streak shaving heads actually makes shaving a pleasure. A practical gift with a luxury touch, it's beautifully gift packaged in a rich, jet jewel case with gleaming golden trim. See the Remington 60 DeLuxe Electric Shaver today, on display at fine stores everywhere and at our 112 nationwide shaver headquarters.

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POCKET SETS—Esterbrook Pen and matching Push-Pencil. Pencil writes for months without reloading. "Push the top to feed the lead." Regular and thin-lead models.

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. . . the pen with the right point for every writer

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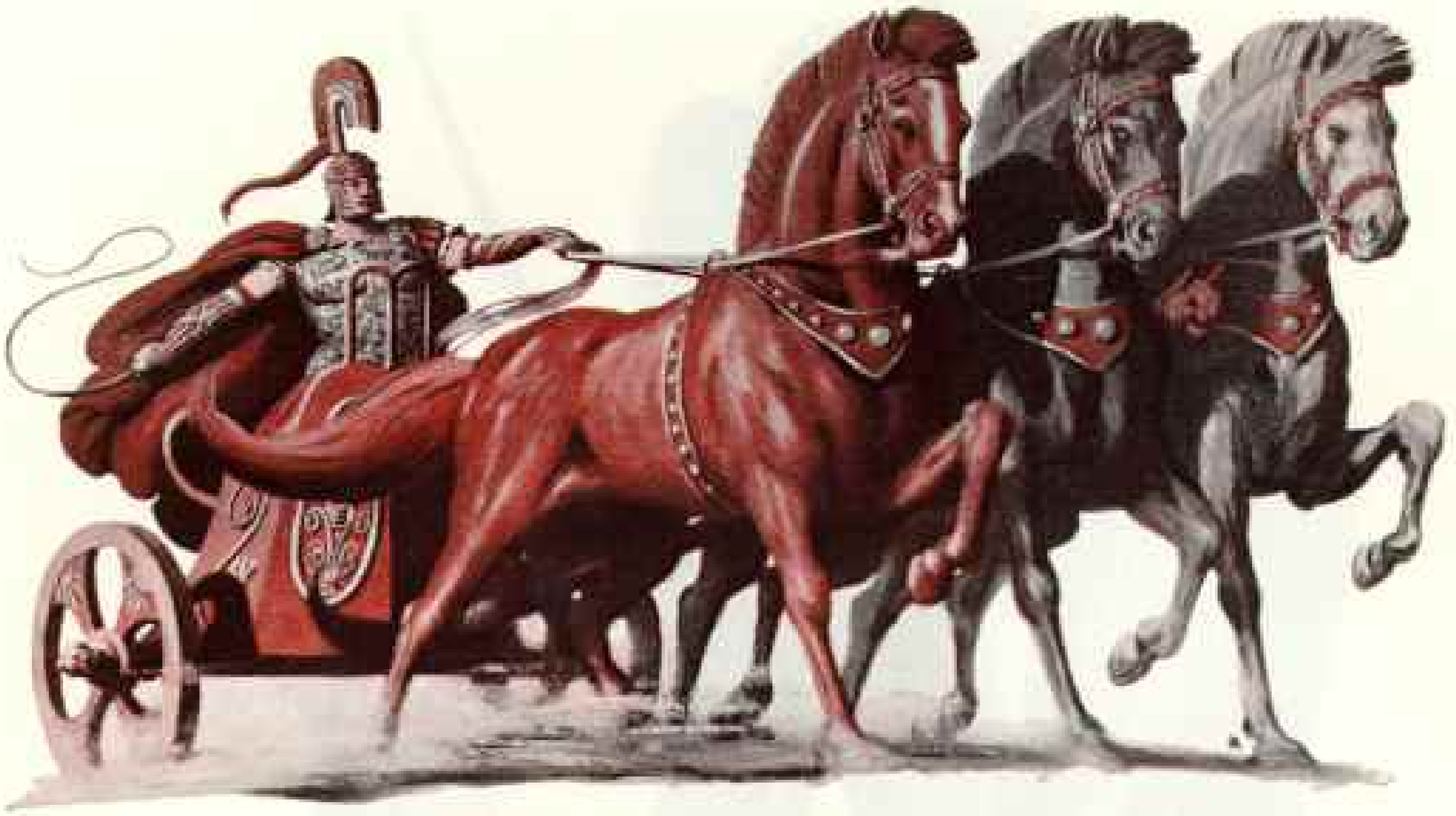


Ever think of **DIABETES** this way?

A NOTED medical authority compares the diabetic person to a charioteer, whose chariot is drawn by three steeds named Diet, Insulin, and Exercise. This authority points out that it takes skill to drive one horse, intelligence to manage a team, and unusual ability to get three to pull together.

Yet, the diabetic person . . . if he is to maintain good health and avoid complications . . . must learn to harness diet, insulin, and exercise and make them pull together in complete harmony.

In all cases, the doctor's advice is needed about insulin and the kinds and amounts of foods that will best meet the needs of each patient.

If you are a diabetic, your faithful, intelligent cooperation with your doctor may help you to control the disease through diet, insulin, and exercise. In most cases, you can look forward to living a long life with almost undiminished activity.

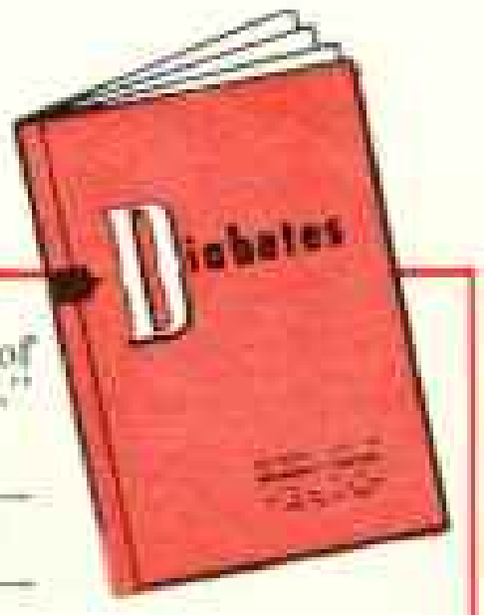
Guarding against diabetes.

Medical science has not yet discovered why certain people develop diabetes. Research, however, has revealed who are its most likely victims. They are:

1. Middle-aged, overweight people. Anyone can help guard against diabetes by keeping his weight down. The only effective way to do this is by controlling the amount of food you eat—especially sugars, starches, and fats.

2. People who have diabetes "in the family." A tendency to diabetes may be inherited. So, if you have diabetic relatives, you should pay particular attention to diet, and be alert to the usual signs of diabetes. These include *excessive thirst and hunger, frequent urination, and loss of weight and strength.*

Since the signs of diabetes may not appear at the onset of the disease, it is always wise to have periodic medical check-ups, including *urinalysis.* This is important because when detected early, the chances for successful control of diabetes are best, often by diet alone.



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Around the edges of the elephant herd the tribesmen then scattered broken statues and stones. These represented the accidents, mishaps, and other misfortunes that had plagued the townsmen during the year.

At a signal, guns were fired to stampede the herd. As the huge beasts charged furiously, trampling the statues and stones, the whole community was supposed to have become accident-free for the next twelve months.

Beating trouble down before it can raise its ugly head is a desirable aim. But it can't be realized by you any more than it could be by the old-time Cambodians.

So if you're wise you'll protect yourself against the consequences of accidents that happen around your place or as a result of your family's doings. A lawsuit, for example, that might confront you if your boy's bike toppled a stranger, or if your garden hose tripped the milkman.

Travelers Comprehensive Liability insurance protects you against bodily injury and property damage claims from *all* such mishaps. You get it from your Travelers agent or broker—and the cost is much less than you would expect.

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Gifts that give the lasting delight of

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KODAK SIGNET 35 CAMERA $92.50

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Here's the latest, easiest way to enjoy color slides. Combines projector and screen in one compact unit. Shows slides enlarged more than four times, crisp and brilliant even in a fully lighted room.

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Painting by Walter A. Weber

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Sixty-seven other photographs in COLOR and 170 in monochrome illustrate 15 engrossing chapters on fishes and on fishing—for food and sport. They reveal life cycles and strange ways of teeming creatures in the savage underwater world of eat and be eaten. Authentic "fish stories" range from the pleasures of fresh-water angling to an exciting five-hour battle of six men with a more-than-3,000-pound, 22-foot, Gulf Stream manta ray!

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12-51

Stalking Birds with Color Camera

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A whole Company of Marines said "THANKS"

How a group of telephone women helped to make it a Merry Christmas for the men in Korea

Santa's suit was made by a South Korean who had never seen or heard of Santa Claus. South Koreans also took turns in dressing the jeep trailer.

Helping others to have a Merry Christmas is a tradition among telephone people. In recent years there has been an increasing number of gifts for those in the service.

One group of telephone women observed last Christmas by sending a holiday package to every man in Company E of the 1st Marines in Korea. They adopted this company in remembrance of a fellow-worker who was killed in action while serving with Company E.

Members of the TEVS, *the Telephone Employees Volunteer Service in San Francisco, holding the scroll of thanks from the Marines. It is one of their proudest possessions.*

You can imagine what happened when all those packages arrived.

The boys made quite an occasion of it. There was much scurrying around to get a Santa Claus suit. None was available but finally they found a South Korean who could sew and the job was completed after a lot of picture drawing and explaining. Then Santa was mounted on a trailer and drawn along in state.

After the packages were opened, a scroll of appreciation was signed by every member of the company and sent back to this country. More than two hundred of the men wrote letters of thanks.

"Your kindness," wrote their Captain, "brought happiness to the hearts of a group of Marines, many of whom were spending their first Christmas away from home."

It all turned out so well that it was decided to do the same thing again this year. So hundreds of packages are on their way across the seas to help make it a Merry Christmas in Korea.

THIS IS JUST ONE OF MANY WAYS in which telephone people, in many communities say "Merry Christmas."

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