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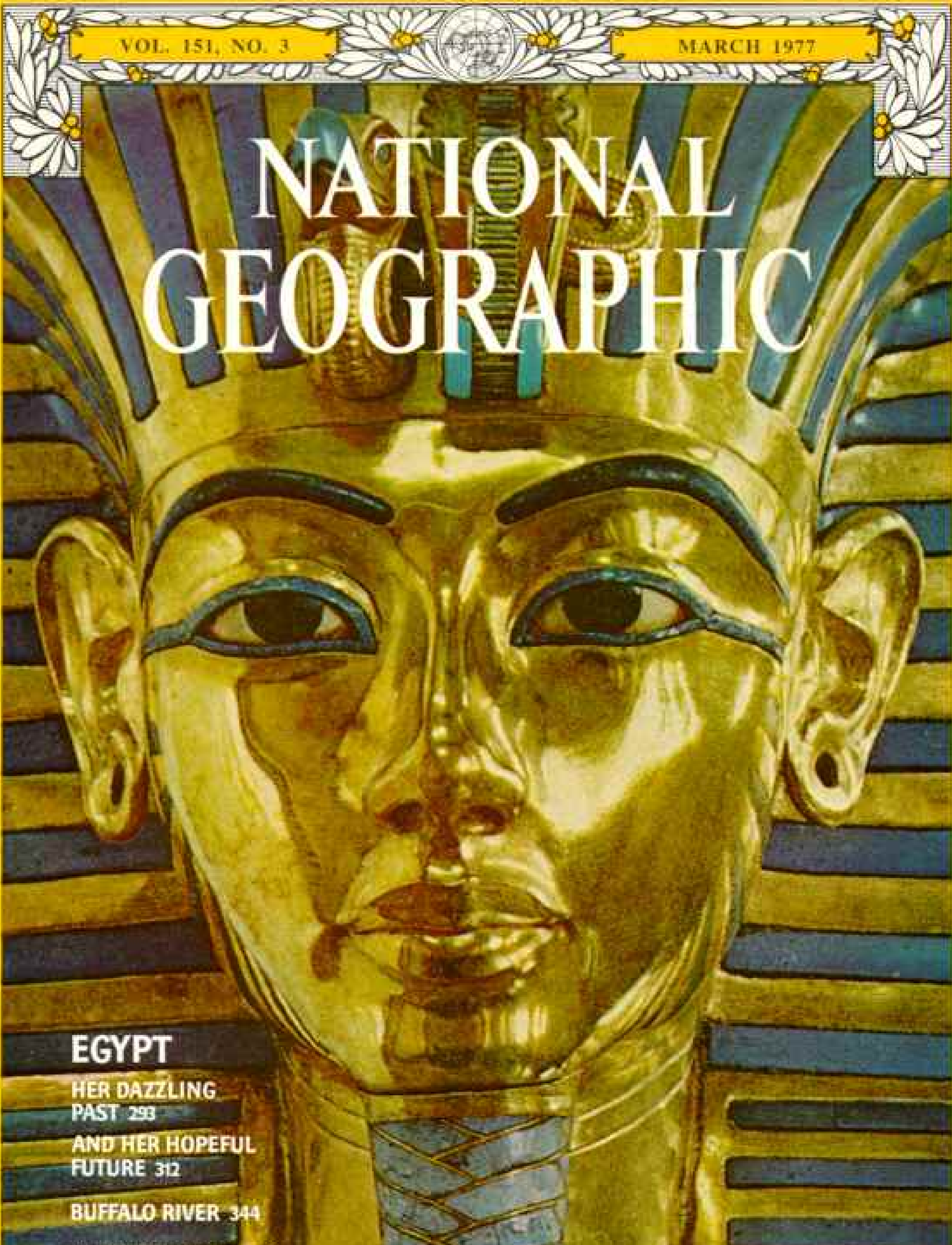
NATIONAL GEOGRAPHIC



A FEW YEARS AGO, a Geographic writer assigned to do an article on Cairo set out to report on that city's movie industry, which furnishes a steady stream of films to the Arabic-speaking world. He journeyed to an obscure desert location south of the Egyptian capital where a historical drama was being filmed. Across the dunes charged the present-day version of a seventh-century hero's army. Thousands of extras poured toward the cameras, scimitars waving and mouths ascream. In the horde, the astonished writer recognized a familiar face—that of his colleague Thomas J. Abercrombie.

Tom, who came to the Geographic in 1956 from the *Milwaukee Journal,* has made a career of thus blending into, and brilliantly interpreting, the world's far places—including Nepal, Cambodia, Easter Island, Antarctica—and particularly the Middle East. His Geographic coverage of this vital sector of the world began in 1957 with an assignment in Lebanon. Since then, Tom has covered Muslim lands from Morocco to Afghanistan. He so immersed himself in Arab culture that in 1965, in the Saudi Arabian city of Jidda, he was received into the Muslim faith. Twice he has made the pilgrimage to Mecca and Medina and as a result bears the honored title of Haj Omar.

Tom's artistry with a camera has won him many prizes. In 1954 he was named Newspaper Photographer of the Year. In 1959, his previous year's work, including photographs taken during a winter at the South Pole, made him Magazine Photographer of the Year. He was the first person ever to receive both of these National Press Photographers Association awards.

All of Tom's skills, both with notebook and camera, have been brought to bear in fashioning his perceptive article on Egypt today —a pivotal country in the volatile Middle East—which begins on page 312. For millenniums history has lain over Egypt like a hard crust, and below it the lives of countless fellahin have proceeded in the immemorial ways of illiteracy and poverty and want.

As Tom reports, Egypt may now be catching up to its past, on its way to closing one of the world's widest generation gaps.

Gilbert M. Grosvenor

NATIONAL GEOGRAPHIC

THE NATIONAL GEOGRAPHIC MAGAZINE VOL. 151, NO. 3

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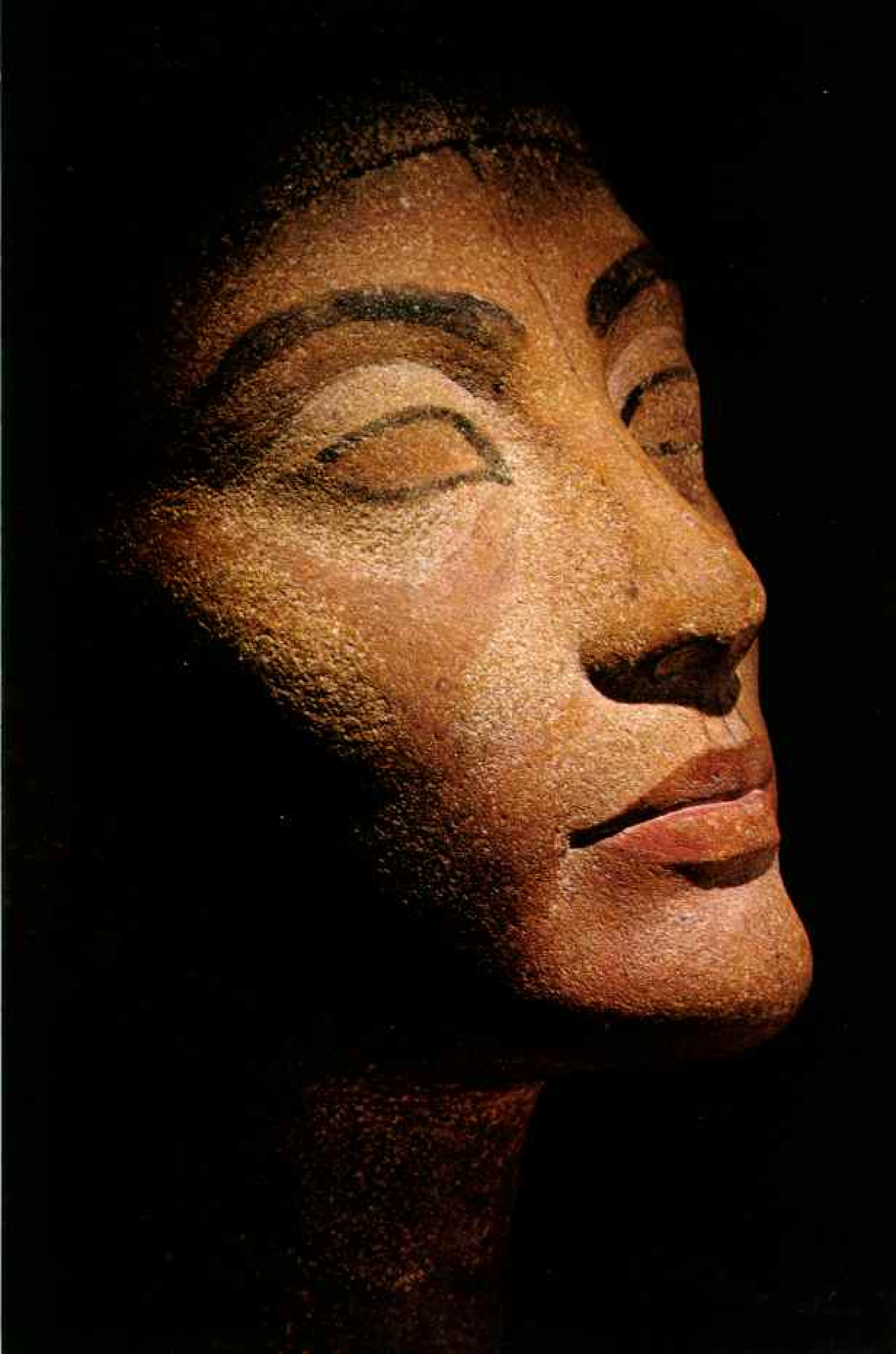
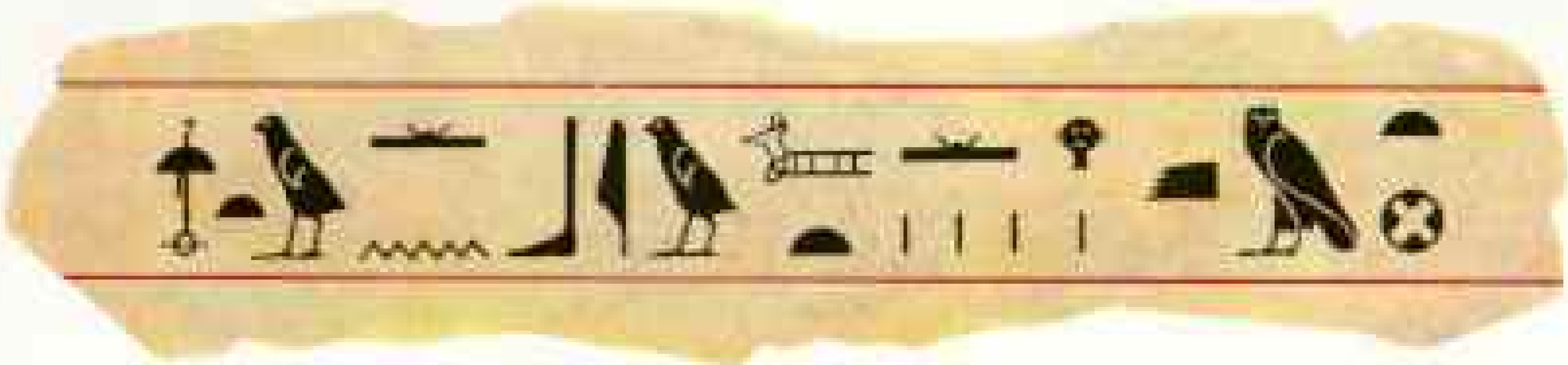
COVER: *Golden immortal, the boy-king Tutankhamun gazes across the centuries in this funeral mask from the Egyptian Museum in Cairo (pages 293-311). Photograph by Lee Boltin for the Metropolitan Museum of Art.*





"Marvelous crafts from the black land," read the hieroglyphs above. Thus might scribes of Egypt's golden age have labeled this portfolio of art treasures from one of antiquity's most brilliant civilizations.

Dazzling Legacy of an Ancient Quest

Text by ALICE J. HALL
NATIONAL GEOGRAPHIC STAFF

"PRAISE FROM THE CHIEF WIFE of the king, his beloved... Nefertiti, living, healthy, and youthful forever and ever." This hymn to the god Aten with a prayer on behalf of a beautiful queen of 3,300 years ago (**left**) expresses the primary hope of her people. The ancient Egyptians sought eternal life above all else. If they could but placate the hundreds of deities who regulated every event; if they could save prized possessions for perpetual use; if they could preserve their bodies as permanent shelters for their souls; then, surely, they would live forever, free from illness and harm, continuing the colorful existence they enjoyed along the fertile banks of the Nile.

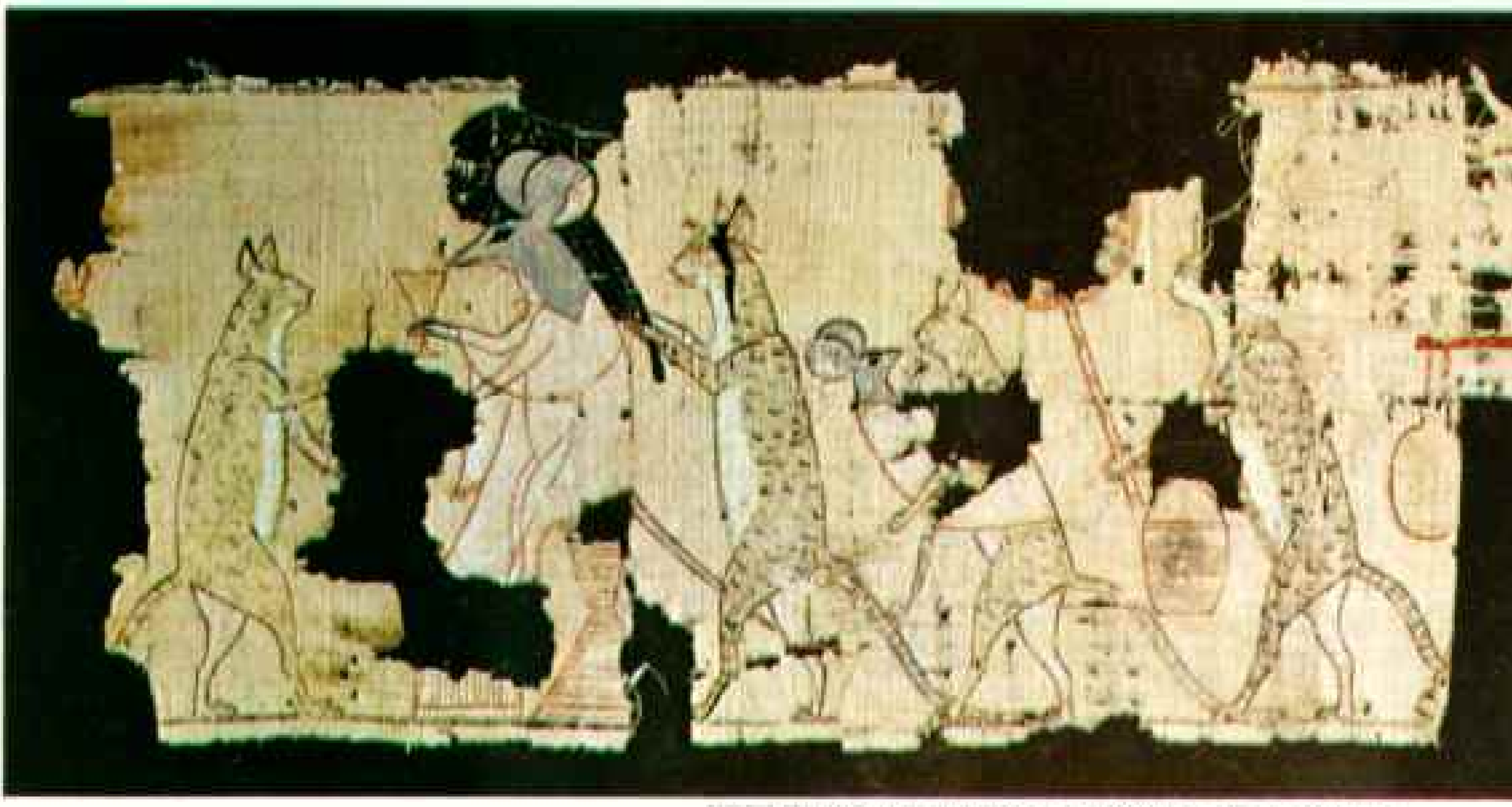
Pursuing eternity, the powerful pharaohs placed tombs within great pyramids or secret rock-cut caverns as bulwarks against oblivion. Aristocratic families also built elaborate sepulchers. Into these inner sanctums went the best furniture, jewelry, and tools. Unlike modern man, they believed with deep conviction that you *can* take it with you.

Along the way in this life and the next, myriad deities had to be appeased with magical chants, rituals, and offerings. The gods of sun, moon, earth, and water had to be showered with favor to assure the yearly life-giving flood of the Nile. Patron spirits of each town and province also required obeisance. Rites were repeated precisely for centuries, giving Egyptian religion and art a constancy and harmony rarely encountered elsewhere.

But all the gods of Egypt could not protect the temples and tombs, then or now, against the greed of robbers or the dedication of archeologists. Today that extraordinary warehouse of antiquity, the Egyptian Museum in Cairo, holds thousands of masterpieces, including many of those appearing in this portfolio. Through such treasures the Egyptians succeeded in forging a kind of immortality. Seeing them, we of the 20th century can reach across time and space to feel the pulse and spirit of an ancient people.

NEFERTITI, QUARTZITE PORTRAIT HEAD FROM TELL EL AMARNA, 33 CM (13 INCHES); PHOTOGRAPH BY NATIONAL GEOGRAPHIC PHOTOGRAPHER VICTOR R. BOSWELL, JR.

SLATE CARVING,
63 CM HIGH (25 INCHES),
3100 B.C.



PAPYRUS FRAGMENT, 13 CM HIGH, 1100 B.C. PHOTOGRAPHS BY VICTOR R. BOSWELL, JR.

STONE TRIAD, 95 CM, 2550 B.C.

"How exalted is the king among gods"

ONE OF EGYPT'S earliest historical records (**left**) perpetuates the name of Narmer. Wearing the crown of southern, or Upper Egypt, he smites an enemy from the Delta, or Lower Egypt, and unifies the nation. The falcon god Horus symbolizes the king and his victory.

Living link with the eternal, Pharaoh Mycerinus (**right**) joins hands with a goddess, cow-horned Hathor, and a lesser deity.

Amid the formal reverence, sophisticated satirists mocked "the establishment" (**above**). Cat servants groom a wine-drinking, diaphanous-gowned mouse—and cuddle her mouse baby.

World's oldest known ship

A MILLION SUBJECTS trembled at the power of Pharaoh Cheops, whose image survives in a three-inch ivory statuette (**left**). For his glory he constructed the Great Pyramid of Giza as his tomb; for his voyage to eternity he ordered this 140-foot vessel, made of cedar from Lebanon. Steered with 26-foot oars, it may have glided in the funeral procession from the capital at Memphis to Giza. There the boat was taken apart and many of its 1,200 pieces were marked with shipwrights' instructions to permit reassembly. Buried in an airtight pit along with thousands of feet of rope (**below**), it has survived for 4,500 years—as its reassembly testifies. A sister ship in a nearby pit awaits the archeologist's pick and shovel.

ALL BY JOHN G. ROSS

"House of eternity"—the tomb

SENNEFER, mayor of Thebes, the capital of a mighty empire in the 15th

THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC FOREIGN EDITORIAL STAFF

century B.C., spent a fortune embellishing his tomb. In repeated scenes of marital bliss, he relaxes with his wife Meryet, often under the protective eye of Horus. Here in the brightly painted tomb, their souls in the form of birds would fly amid cheerful surroundings.

FALCON, GOLD WITH OBSIDIAN EYES, 35 CM (14 INCHES), 2350 B.C.

"Hail to thee for all beasts"

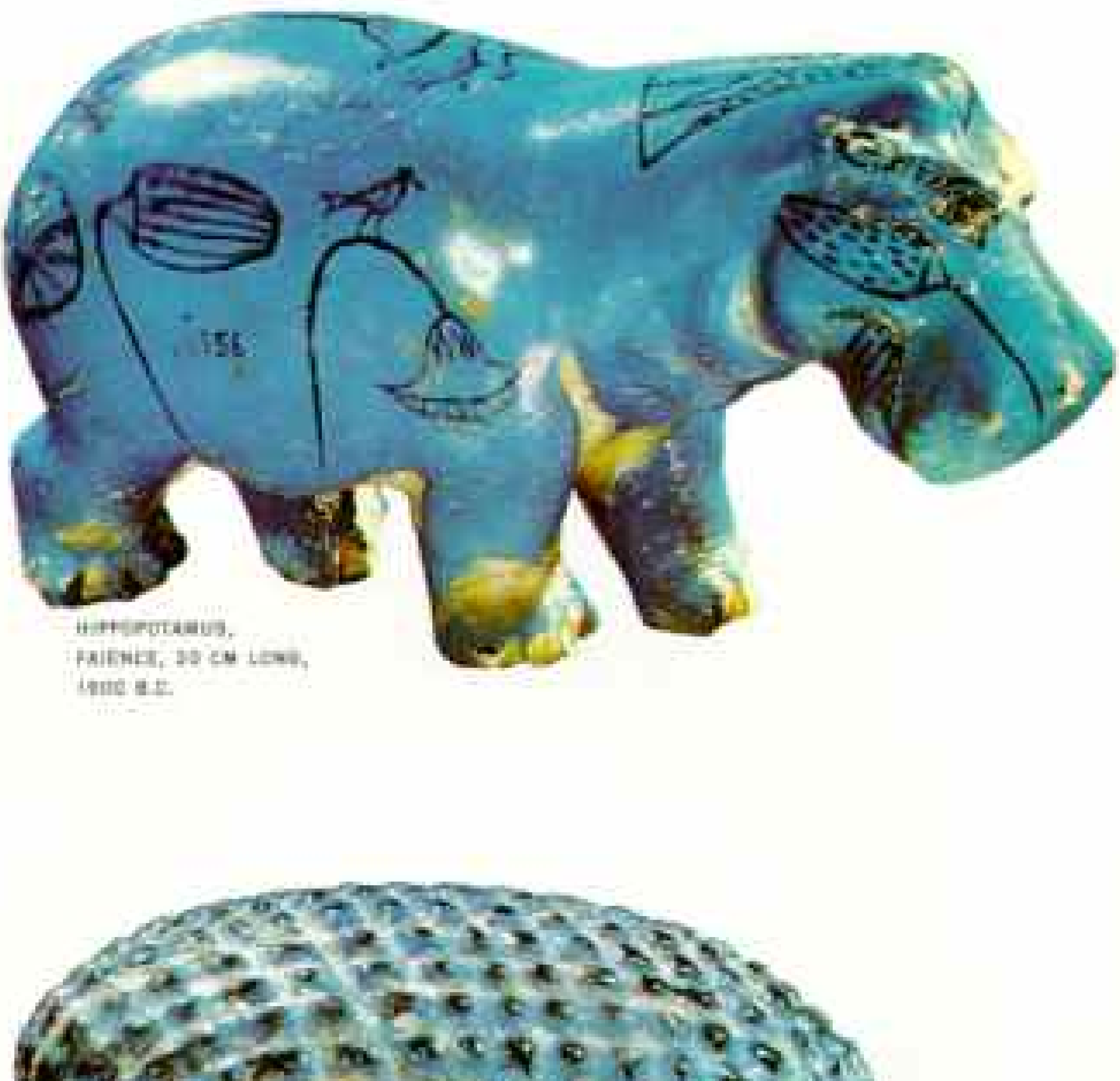
BIRDS and animals that lived along the Nile often came to embody the gods themselves. Horus the falcon was a sky god when this statue was created. The stylized plumes and cobra are symbols of divinity. Eventually, Horus was joined with Re, a sun god, and became a mighty deity.

The crocodile represents the earth god Geb in illustrated instructions (**above**) that aid Lady Heret-Webkhet on her journey to the afterlife. Here she kneels to drink the waters of paradise. In the hieroglyphs she asks for food that had been placed on the offering table of Horus.

The mongoose was himself a temple offering. The hippopotamus may have symbolized the struggle against Seth, god of evil. The hedgehog was thought to exercise magical power in the grave.

PAPYRUS, 25 CM HIGH, 1000 B.C. PHOTOGRAPHS BY VICTOR R. BOSWELL, JR.

MONGOOSE, BRONZE,
20 CM, 500 B.C.



HIPPOPOTAMUS,
FAIENCE, 20 CM LONG,
1900 B.C.

HEDGEHOG, FAIENCE, 8 CM HIGH, 1900 B.C.

VICTOR R. BOSWELL, JR.

"Oh, great shepherd...."

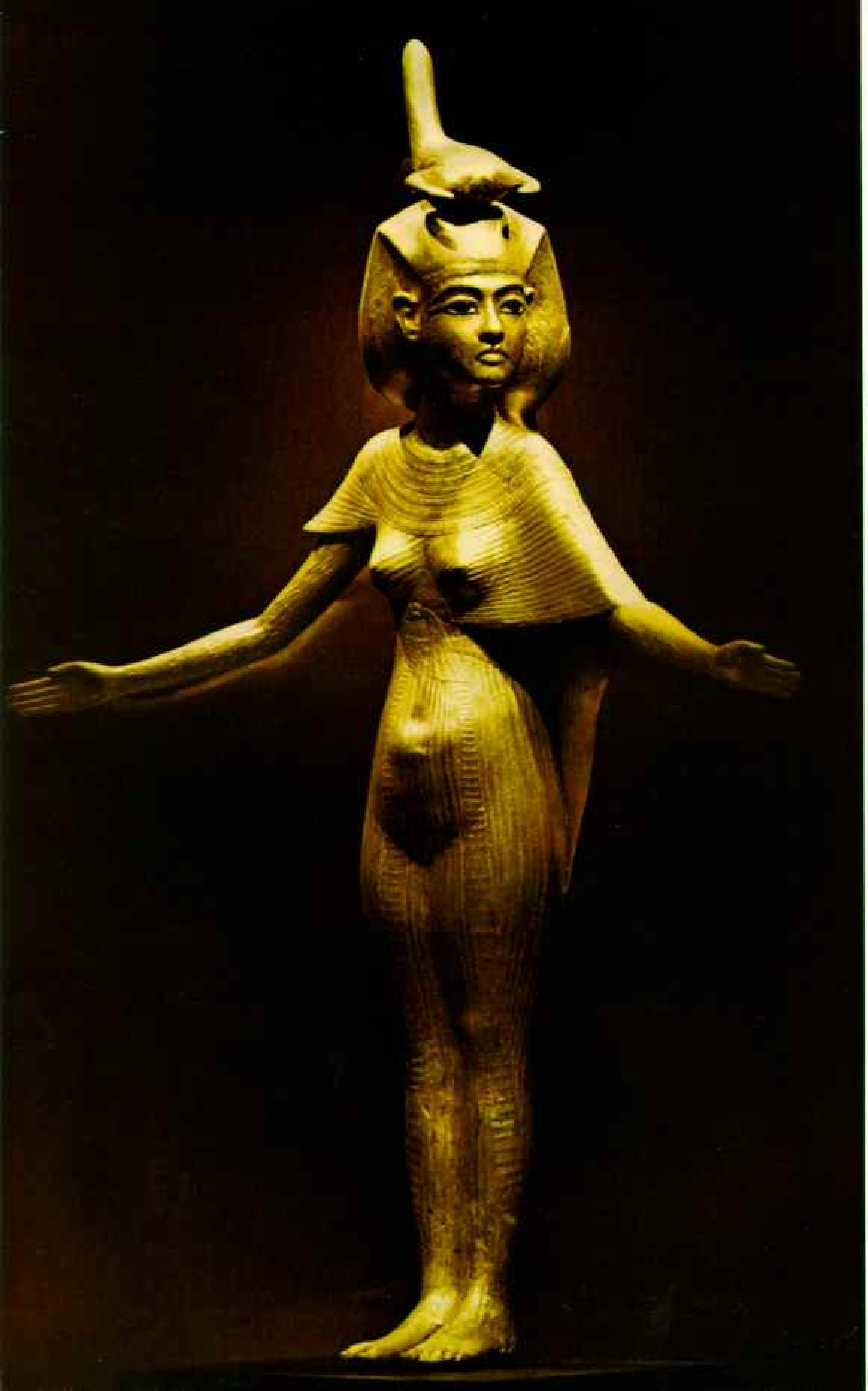
WEEPING SERVANTS call to their dead master, Ramose, in his tomb at Thebes, "Come and return to us." They fling dust on their heads and make supplicating gestures, just as village women still do.

Elsewhere in the tomb, seated dignitaries and relatives, portrayed in the finest of limestone bas-reliefs, attend the funeral. Here, idealized as youths (**left**), Ramose's mother, Ipuia, sits beside his father, Neby.

Ramose commissioned the art himself about 1380 B.C., during his turbulent lifetime as vizier, or prime minister, to two pharaohs.

These fine scenes proved to be wishful thinking. Once the second most powerful man in the kingdom, Ramose disappeared into obscurity. How he died, when and where, remain a mystery.

THOMAS J. ABERCROMBIE



LEE BOLTIN FOR THE METROPOLITAN MUSEUM OF ART (ABOVE AND BELOW) AND FRED J. MAROON

King Tut's gold

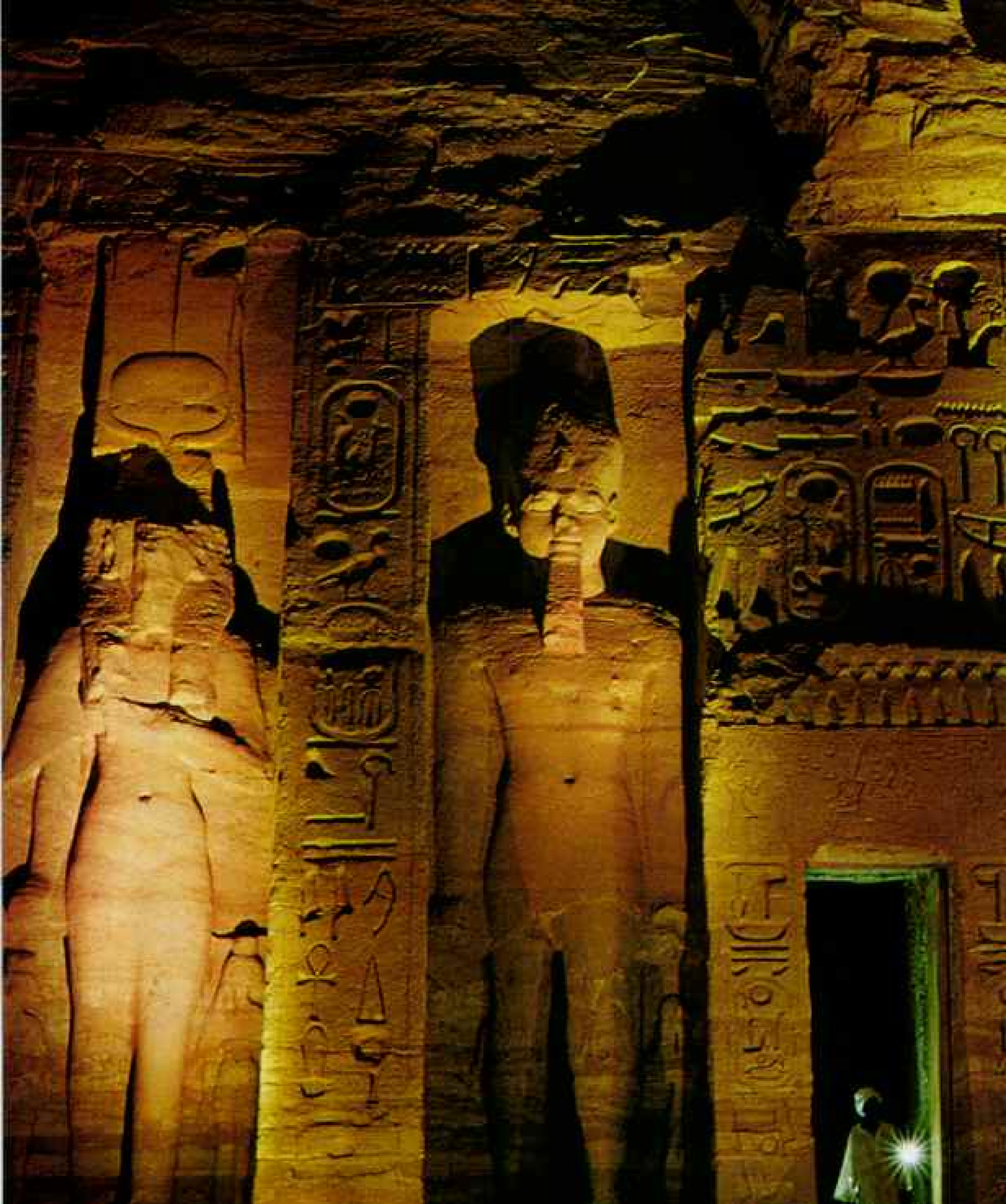
THE GREATEST TREASURE ever found in Egypt—nearly 5,000 items from the 14th century B.C.—came to light in 1922 with the opening of the tomb of the boy-king Tutankhamun. Guardian of a shrine containing the king's internal organs, Selket (**left**), half life-size, was so powerful that her magic could cure the sting of the scorpion on her head. The queen adjusts the king's collar (**above**) in a scene on a small shrine. The dagger and sheath are pure gold. These and 52 other masterpieces are now on tour in the United States.

THOMAS J. ABERCROMBIE (ABOVE AND RIGHT) AND LEE BOLTIN FOR THE METROPOLITAN MUSEUM OF ART

"My leopard skin is on my arm"

THUS A PHARAOH assumed his role as high priest. Here (**facing page**) a deity wears the priestly leopard mantle in the tomb of King Seti I at Thebes. The leopard-head ornament on his chest resembles the golden one from the tomb of King Tutankhamun (**right**).

Carrying scepter and ankh, or life sign, gods (**above**) line the unfinished tomb of Pharaoh Horemheb. A master craftsman used black paint to correct the basic sketch done in red.



"Given life... forever"

SO IT IS WRITTEN on a queen's temple at Abu Simbel. Gigantic statues of Ramesses II, beside equally imposing figures of his wife

THOMAS J. ABERCROMBIE

Queen Nefertari, portrayed with the cow horns of the goddess Hathor, may fulfill the prophecy. Water rising behind the new Aswan High Dam threatened the 13th-century B.C. temples until engineers cut them apart and reassembled them on high ground. Ramesses would have appreciated the effort; he spent much of his 67-year reign building monuments to himself.

IN THE CHILDHOOD of their civilization, Egyptians mastered the most efficient ways to wrest a living from the earth along the Nile. Pulling flax in a tomb painting is mirrored by today's farmer harvesting flax, roots and all.

TOMB OF SENNEDJEM, THEBES

TOMB OF REKHMIRE, THEBES

WITH THE NILE'S flood gift of silt, skilled brickmakers have shaped, then sun-dried, building blocks for millenniums. Now the modern craftsman finds less and less raw material to work with as the Aswan Dam reduces the flow of silt.

Incredibly, Egypt's ancient culture

CREATORS of instant antiquities, today's stone carvers at Thebes fashion bowls from alabaster blocks, then painstakingly polish them by hand. Ancient artists twisted a drill weighted with stones to carve exquisite alabaster bowls and unguent jars.

THOMAS J. ABERCROMBIE (ABOVE AND BELOW) AND ANN STEWART ANDERSON

TOMB OF KHERUEF, THEBES

TO THE BEAT of drums, agile men tell a folktale with a stick dance that dates from pharaonic times. The ancient bout reenacts a ritual battle. Such customs survive in smaller villages, less susceptible than the cities to foreign influences.

endures in an unbroken line for 5,000 years

Looking back to an age of glory that produced the towering Pyramids of Giza, Egypt now seeks renewal in the promise of a new era. Celebrating 25 years of independence, the still largely agricultural nation turns to industry for a higher standard of living. A worker (**right**) takes a tea break in an electronics plant in Cairo.

EGYPT

Change comes to a changeless land

ARTICLE AND PHOTOGRAPHS BY THOMAS J. ABERCROMBIE

NATIONAL GEOGRAPHIC FOREIGN EDITORIAL STAFF

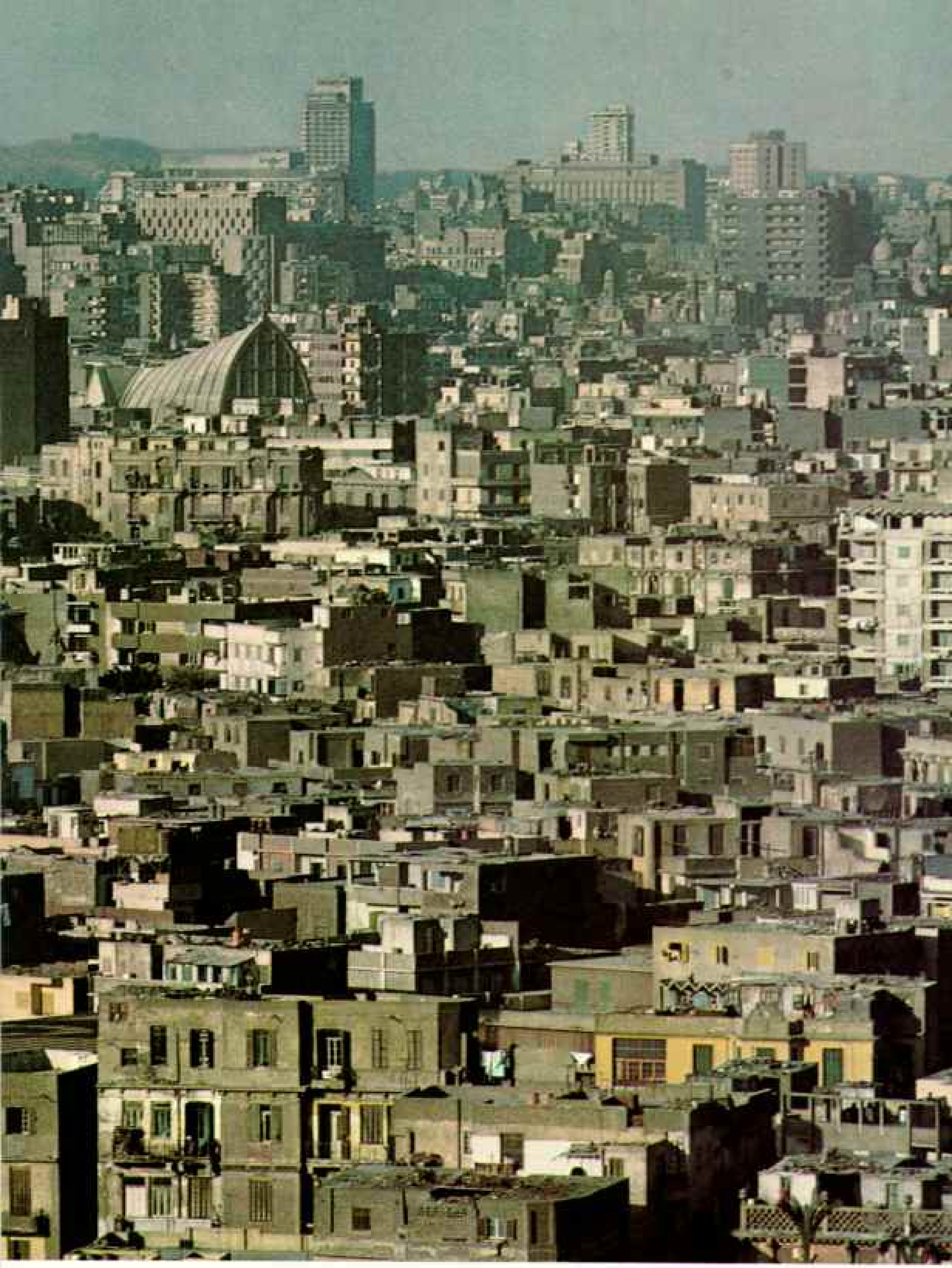
IN RICHNESS OF HISTORY, no nation on earth can rival the long, continuous pageant that is Egypt, and no river reflects greater glory or greater toil than her Mother Nile. The ruined dreams of pharaohs and hovels of humble farmers alike lie buried along her banks. Here and there—at Memphis, Abydos, Abu Simbel, Thebes—massive monuments still guard the greatness of darkly distant ages.

Outside Cairo I paused to gaze, as I had often done before, at the Pyramids of Giza, rising on the mists across the river. Cairo, I reflected, is a thousand years old; yet compared with these colossuses, Egypt's capital is a newcomer to the Nile. When Herodotus, the venerable "father of history," visited Giza's Pyramids four and a half centuries before Christ, they had already stood 2,000 years and more.

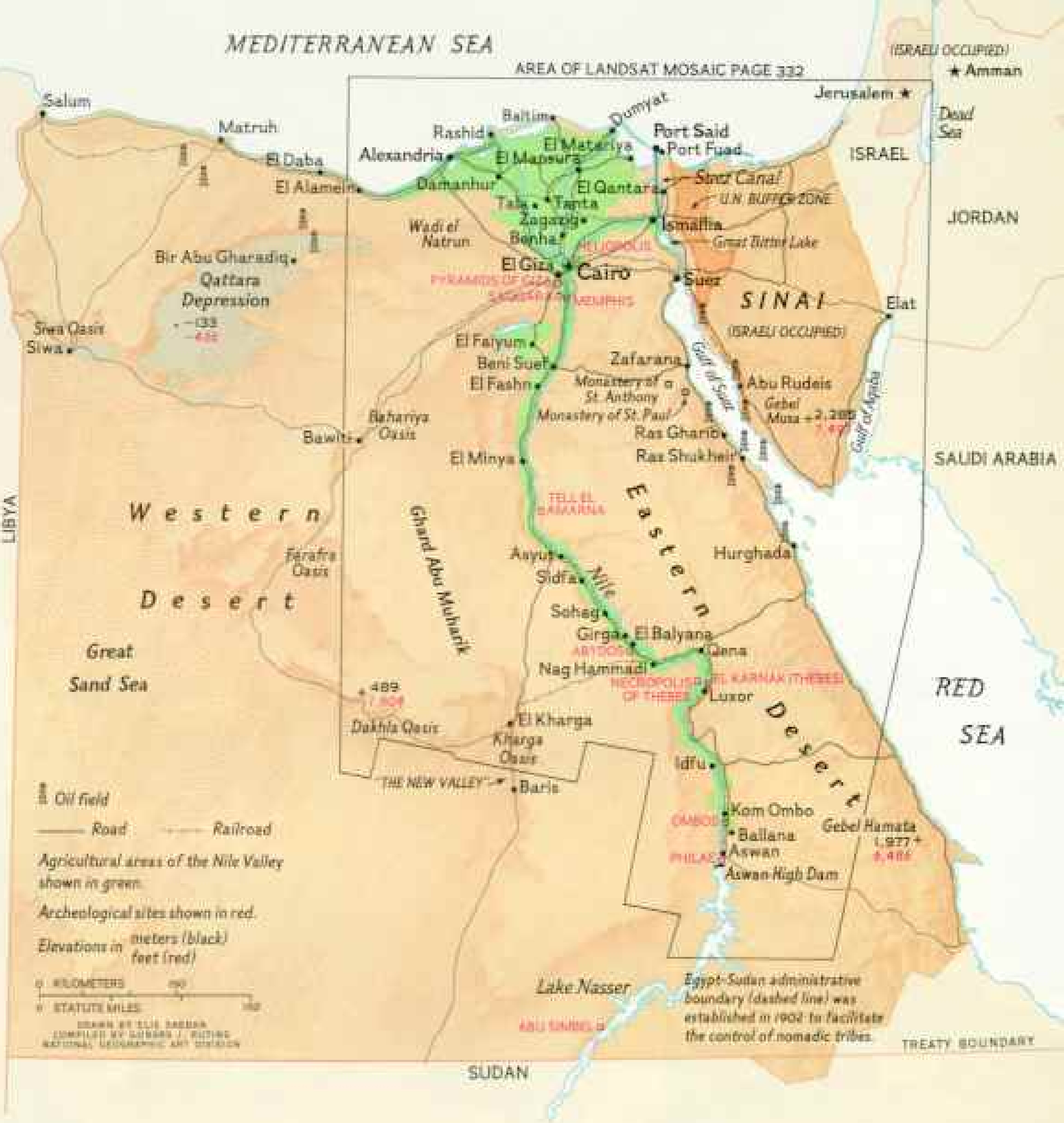
Egypt seems always to have been dominated, overshadowed, by the power of her past. But now, after months of roaming this parched land from Port Said to the upper Nile, from Sinai to the great Western Desert, I have come away convinced that Egypt, at last, has overtaken time.

Just when this gradual process began is hard to say. One turning point, certainly, came in 1970, *(Continued on page 317)*

Africa's largest city and one of the world's most crowded, with almost nine million inhabitants, Cairo struggles to make room for a thousand newcomers a day—result of a high birthrate and migration from rural areas. Housing costs skyrocket; as many as



nine people sometimes occupy a single room in the poorest district. This view to the southwest, on an unusually clear day, reaches from a quarter called Abbasiyya across downtown Cairo to the Pyramids of Giza, eight miles away.



EGYPT

In thrall no more to the vagaries of the Nile's annual flood, the Arab Republic of Egypt reaps multiple benefits from water in Lake Nasser behind the Aswan High Dam, completed in 1971. Extensive year-round irrigation has increased food production, and saved Egypt from drought in 1972, when river flow was at its lowest in 50 years. Aswan generators, producing six billion kilowatt-hours annually, will light every village by the 1980's.

AREA: 386,660 sq. mi., of which only 12,500 sq. mi. are arable. **POPULATION:** 40,000,000. **LANGUAGE:** Arabic. **RELIGION:** 90 percent Muslim, 10 percent Christian. **GOVERNMENT:** Socialist republic, with increasing encouragement of private industry and foreign investment.

(Continued from page 312) when a trim, dark-haired former army officer, journalist, and politician named Anwar Sadat succeeded to Egypt's presidency (page 324), after the death of Gamal Abdel Nasser.

In contrast to nearly two decades of Nasser's rigid Arab socialism (backed by military hardware and as many as 20,000 advisers from the Soviet Union), Sadat instituted an open-door policy that has begun to raise the country's economic morale. He has sent the Soviets home and mended diplomatic ties with the United States. He has invited private business investment in Egypt by Western nations as well as by his more conservative, oil-rich neighbors.

Revenues from the reopened Suez Canal—and oil discoveries in the Gulf of Suez—now offer hope for the country's debt-ridden national budget. In the hostilities of October 1973 and the U.S.-assisted cease-fire settlement that followed, Egypt won back a strip of the Sinai Peninsula occupied by Israel for six years. These events restored to the average Egyptian the dignity and self-confidence crushed in the humiliating defeat by Israel in the six-day war of 1967.

As one young Egyptian artillery officer told me, "We proved that Arabs can *win* a battle—and that the Arab oil weapon is something that even the superpowers must consider."

Human Flood Washes the Nile's Banks

Egyptians are now forty million strong, and may double in number by the turn of the century. They inhabit an area almost equal to France and Spain combined. But 96 percent of the people live squeezed onto only 4 percent of the land, the long green strands that flank the Nile. In Cairo's busy streets, and at the strategic junction of the river and its Delta, the crowding reaches its peak.*

The city itself—broad boulevards and tall apartment blocks, medieval alleys winding past domed mosques, green parks on the island of Gezira, the slums of Bulaq, the bookstalls along Ezbekia—was the same Cairo I had known from former visits, the last time only four years earlier. Yet the mood had changed; the pulse had quickened.

Windows along Suliman Pasha were stocked with new luxuries: Japanese cassette recorders, Italian shoes, French automobiles. Fashionably dressed shoppers eagerly crowded the stores.

The skyline around Tahrir Square, long dimmed by blackout precautions, once again flashed with neon. New tourist buses hauled pale platoons toward Giza's marvels or the leather and gold bazaars of Khan el-Khalili. Merchants and dragomen, busier than ever, were rubbing their hands and raising their prices. Empty taxis, once in oversupply, had become a vanishing species. I finished my thimbleful of thick, black brew at Fishawi's coffeehouse, across from the centuries-old Al-Azhar Mosque, and pressed past the throng to find a cab.

Cairo Taxis Not for the Fainthearted

In Cairo a taxi ride is an adventure in frustration. *"Wen-Nabi,"* my driver pleads—"By the Prophet"—and leans on his horn for emphasis. The cyclist balancing a hundred loaves on a tray over his head eases left, and we squeak between him and a ten-ton Mercedes diesel truck slung with steel pipe. The scream of horns is deafening. We jerk to a stop inches from a hearse, a road-worn black Ford truck decorated with silvered angels. Its driver condemns our fathers to a fiery hereafter, but my man disarms him with a polite "*Sabah en-nur*—Morning of light!"

"*Sabah el-full*—Morning of fragrance," he replies weakly, and backs slightly to let us by. We plunge down Port Said Street, past shiny new Fiats, creaking pushcarts, red buses jammed with commuters who cling stubbornly even to windows and bumpers, past Soviet-built motorcycles, a horse-drawn wagon heavy with limestone, and now and then a herd of sheep.

From sidewalks clogged by spilling shop stalls, noisy coffeehouses, and hawkers of combs and ball-points, pedestrians overflow into the street—laughing schoolchildren, old men in long galabias, women in black shawls, office workers—oblivious to the perils. Through it all my driver never flinches. His honk, weave, and banter get me to the governor's office on Abdin Square in time.

During the long Lebanese civil war, when many firms fled Beirut, it seemed that Cairo might just become the business capital of the Middle East. But Cairo wasn't ready.

*William S. Ellis looked at Egypt's largest city in "Cairo, Troubled Capital of the Arab World," in the May 1972 National Geographic.

Experienced business personnel were scarce, office space nonexistent. Newcomers found water, electricity, and elevators functioning, at best, intermittently. The telephone system, antiquated and overloaded, is on the verge of sputtering out. (It took me an average of ten dialings to complete a crosstown call.) And Egypt's baffling bureaucracy frustrates the most patient entrepreneur. Even businessmen accustomed to Latin America's *"Mañana"* find it difficult to cope with a smiling Egyptian's response: *"Malish"*—"Never mind" or "Don't worry."

Discipline's the Ticket for City Traffic

"The Cairo you see is a city built for three million people," explained Governor Mahmoud Abdel-Hafez. "Today we are nearly nine million, and we're growing at the rate of a thousand a day."

The governor is a small, well-tailored man, with a large presence; horn-rimmed glasses amplify his intense eyes. He speaks carefully, with a slight British accent acquired, along with his Ph.D., in London.

"We have completed one new freeway bridging the Nile," he continued. "And another is under construction. We could cut our traffic congestion by a third right now simply with more discipline. Drivers are noticing a more common sight on our streets: policemen writing tickets. Banning animal carts from the central city has helped. We desperately need underground parking and a subway system —but our budget is limited."

He puffed thoughtfully on a thick cigar. "Our biggest headache is housing," he said.

Reclaiming forty square miles of desert northeast of Cairo over a ten-year period, the Egyptian Government built Nasr City, a modern suburb of 400,000, complete with shopping centers, offices, schools, and hospital.

"But to keep up with Cairo's growth rate," Governor Abdel-Hafez said, "we would have to build such a development every year!"

Since recovery of its territories along the Suez Canal in 1974, Egypt has taken on an even more awesome task: the rebuilding of the entire region along the canal. With money and expertise from the United States, Great Britain, France, and the U.S.S.R., workers cleared away thousands of mines and bombs and dozens of shipwrecks to reopen the waterway in 1975.* At the same time Egyptians began rebuilding the war-ravaged cities like Suez and Ismailia along its banks. Ismailia-born Osman Ahmed Osman, boss of the Middle East's largest construction company, was named Minister of Housing and Reconstruction and put in charge.

A burly, energetic man, engineer Osman displays the restless manner of a boxer before a fight. Yet he gently thumbed a strand of black prayer beads while we talked in his helicopter during an inspection tour of the canal. As we hovered above the long blue ribbon, I watched a dozen ships file northward: the morning convoy from the Red Sea.

"Clearing the canal was our first priority, of course." Engineer Osman raised his voice above the whine of the rotor. "Its closure cost world shippers 1.7 billion dollars a year—and Egypt millions in toll revenues.

"But the Suez is not just a canal," he said. "To a million Egyptians it means home. Most were evacuated after 1967, when their towns and cities were destroyed or badly damaged. We've already built 30,000 new homes, 210 schools, 25 hospitals. The population is now greater than before."

Whirring over Suez, we saw work beginning on a two-lane tunnel for trucks and cars, the first of three such links between Sinai and the Egyptian "mainland." Farther north we passed a canal *under* a canal. The new freshwater underpass brings Nile water to 1,250 acres of barley, first stage of a project to develop the western Sinai. Near Ismailia we circled Sheikh Zayid Bin Sultan City, and I could see workmen finishing a minaret. A gift of 150 million dollars from the town's namesake, the ruler of Abu Dhabi, helped finance the project (pages 320-21).

Hope Rises for Self-sufficiency

Such heavy dependence on foreign aid still haunts Egypt's economic master plans. But now the country can at least begin to look toward its own growing industry, whose output may eventually rival agriculture in value. Humming textile mills and busy food-processing plants are helping to bring in foreign currency. Egypt's brightest prospect, however, is oil.

With a hard-hatted petroleum engineer,

*William Graves described the reopening of this vital waterway in "New Life for the Troubled Suez Canal," NATIONAL GEOGRAPHIC, June 1975.

Abdel Aziz Bayoumi, I drove south along the Gulf of Suez toward a cluster of wellheads that Egypt recovered from Israel under a 1975 Sinai agreement. Still officially at war, the two nations observe a wary truce across a narrow demilitarized zone (map, page 316). The Sinai coast road threads this strip, controlled by the United Nations. Near Abu Rudeis oil camp we stopped at a U.N. checkpoint. Bayoumi glanced at his watch.

"Another ten minutes," he said. "They have the road until 12:30." As we waited, he explained: "This is the western Sinai's only north-south road. We share it with the Israelis, in three-hour shifts."

Squinting through my telephoto lens, I could see a small outpost a mile or so inland. Above it, the blue and white Star of David fluttered in the desert breeze.

Oil Companies Eye Egyptian Reserves

We pulled up at Well 112-27, near the edge of the U.N. buffer zone. A two-man Finnish truce team watched while sweating derrick hands lowered test equipment into a mile-deep drill hole.

"The Israelis pumped 100,000 barrels a day out of the Sinai," Bayoumi said. "They wanted to suck the ground dry. That's bad conservation. We will pump more slowly and ultimately bring up more of the oil."

Egypt's proven oil reserves, 3.9 billion barrels, have not gone unnoticed by the international companies. Thirty-five have signed agreements with state-owned Egyptian General Petroleum Corporation to explore promising areas in the Gulf of Suez and Egypt's vast Western Desert. Across the gulf from Abu Rudeis, at Ras Shukheir, I talked with Ragaa Farahat, area superintendent for the Gulf of Suez Petroleum Company, a profitable Egyptian-American partnership.

Until recently just a lonely desert promontory, Ras Shukheir had grown into a bustling town of more than a thousand oilmen, with noisy workshops, an airport, and its own mosque. Helicopters clattered back and forth, ferrying workers and supplies to the 8 rigs scattered 20 miles offshore in the gulf. Closer in, two tankers took on crude for the trip north through the canal to a refinery in Alexandria.

"Compared to Saudi Arabia or Kuwait, our operation hardly qualifies as a 'boom,'" Mr. Farahat conceded. "Our three offshore fields here account for two-thirds of Egypt's total production. But Egypt is already producing enough oil for her own needs. The goal is a million barrels a day by 1980; that would make us an established oil exporter."

Close as the oil is to the front lines, the future of Egypt's bonanza depends heavily on a lasting peace in the area. To exploit its oil fully, Egypt counts on getting back the rest of the Sinai Peninsula.

"The Israelis, too, have begun to drill out in the gulf," Mr. Farahat said. "Last summer, while surveying for a new rig site in Ramadan field, we had a tussle with them. Israeli gunboats chased our launch away, then shot our buoys right out of the water."

Back in Cairo life goes on with hardly a hint that, officially, the enemy is dug in less than a hundred miles away. But the traveler in Egypt who would visit more than the tourist monuments needs a sheaf of special permissions. Whenever I left the main road, I carried passes from the Interior Ministry, the Office of Intelligence, and the Army. Much of the countryside is officially a military zone, in places bristling with rockets and radar antennas. Squadrons of jets scream low across the desert.

"Although it calls for sacrifices, we must keep our armed forces trained and ready for an alert," the Minister of War, General Mohamed El-Gamasy, told me in his Cairo office. The general is a lean man with piercing eyes and a trim mustache, dressed in impeccable olive drab. Five rows of ribbons on his chest rainbow the highlights of his forty-year military career.

"The fact is that, despite the cease-fire, the war is not over. Nor will it end," he stressed, "until all our land has been freed."

Modern School for Modern Wars

To cope with the rising sophistication of warfare, the Egyptian Army created the Armed Forces Technical Institute in 1968. On a visit, rarely offered Western correspondents, I toured the campus with Rear Adm. Hassan Ezzo, the school's commandant.

"Our two thousand cadets represent the cream of Egypt's young manpower," Admiral Ezzo said. "The institute's entrance exams are just as stiff as those of our naval or air academy. Soviet technicians helped us

Back in business and booming, the Suez Canal carries 46 ships a day, approaching its average prior to 1967, when war with Israel closed the vital waterway. The conflict destroyed canalside cities, displaced 700,000 Egyptians, and saw Israeli troops fortifying the east bank (**above,** left). Egypt rewon the territory in October 1973, and finally reopened the canal in June 1975. During the following year revenues mounted to $315,000,000. Here a Soviet freighter steams south behind a Saudi Arabian vessel.

Drawing on foreign expertise and funds, Egypt is rebuilding canalside cities and tunneling roads and a freshwater canal under the Suez to begin land reclamation in the Sinai desert. Sheikh Zayid, ruler of tiny Abu Dhabi, a state richer in oil revenues than Egypt, contributed $150,000,000 to help create a suburb of Ismailia (**right**). Rental units for 4,500 low-income families are built around a central plaza, or *midan*, where a mosque takes shape. In gratitude Egyptians named the settlement Sheikh Zayid City.

organize the school, but today the staff is a hundred percent Egyptian."

Along the street we passed platoons of well-scrubbed cadets with clipboards under their arms, marching to class in double time. At the Faculty of Radar and Rockets, students demonstrated a working model of a Soviet P-12 early-warning radar—a maze of transmitters, receivers, and radarscopes.

The inside of the hangar across the street looked like an aircraft factory. Jet fighters and helicopters stood about in all stages of completion. On one long panel the entire hydraulic system of a fighter plane was assembled, diagrammatically. Lt. Col. Hassan Bedare, Commander of the Faculty of Aviation, explained: "All our training aids were made by the students themselves, from equipment damaged in battle."

At the aviation building he steadied a boarding ladder so I could try on the cockpit of a MIG-21 for size. "This is one class project," he said. "Students built this plane out of salvaged wrecks. After thorough testing, it could be sent back into service."

All the planes, missiles, radar, guns, and tanks I saw were of Soviet origin. But now Egypt is taking delivery of British and French aircraft. Would that not require a great deal of retraining?

"The new equipment will differ in details," Admiral Ezzo replied, "but the basic technology remains the same. And surely if we can keep aging Soviet equipment flying, we can maintain anything."

Farmers Follow Ancient Furrows

Technology, for the majority of Egypt's rural population, remains the science bequeathed them by the pharaohs. Many fellahin, Egypt's landbound peasants, still turn the soil with crude wooden plows and reap with the sickle. The hot, backbreaking days in between they spend lifting water from canals with the Archimedes' screw or the shadoof, a simple bucket on a weighted pole. With it, working from first light until dark, a man can water less than half an acre.

My first drive through Upper Egypt was in the midst of the busy May harvest. All along the narrow valley, fields of clover or beans alternated with squares of ripening grain, a checkerboard of green and gold. Near the village of Girga I stopped to watch an old man and his granddaughter riding a rough timber threshing "sled." Patient oxen pulled it round and round a hill of barley stalks piled high by wooden pitchforks. Nearby two young men winnowed grain on the afternoon breeze.

"There is a man in El Balyana, ten miles upriver, who has a powered threshing machine," the old farmer said. "But his fee is one-twentieth of the grain. Anyway, our small crop is hardly worth his trouble. As long as my two strong sons stay on the farm" —he nodded toward the flying chaff—"we will always manage.

"Allah karim!" he added. "God is generous!"

Rural Egypt—Mirror of the Past

As I worked my way around the country, by land and often by boat, timeless vignettes collected in my notebook; they might just as easily have been taken from tomb walls at ancient Thebes.

Sidfa village: Past a long row of turreted mud-brick dovecotes—collecting houses for fertilizer—a barefoot caravanner drives a string of donkeys, invisible, except for their plodding feet, under loads of straw....

Near Faw Qibli: Blanched with dust, a file of longshoremen shoulder 150-pound blocks of limestone from a Nile-side quarry across a springy gangplank to a felucca. Just offshore another, low in the water, raises its tattered sail for the twenty-day journey to Cairo....

Bawiti Oasis: Stripped to his waist and sweating, a farmer crushes olives under a rumbling stone roller. A creaking handpress squeezes out the oil....

"Egypt," a cynical Cairo friend had warned me, "is plunging headlong into the 20th century—B.C.!" *(Continued on page 333)*

Stoking up a new industry, an aluminum worker—one of 7,000 employees—tends a 100,000-ton-capacity smelter at Nag Hammadi. The complex turns imported alumina into ingots that will give the country products for its own use and for export. The Soviet Union built this and other heavy industries to utilize excess electricity produced by Aswan High Dam generators.

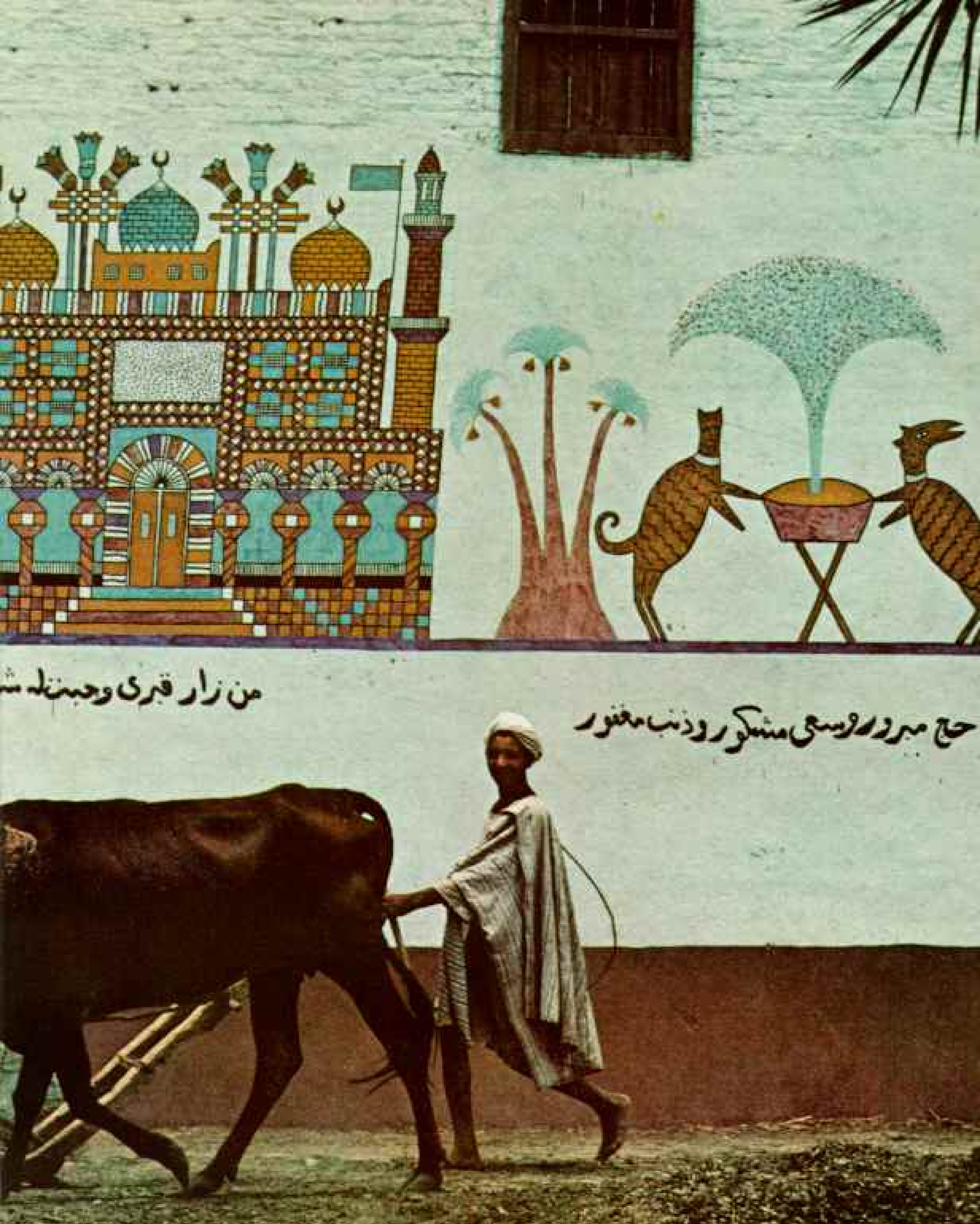
In firm command of the Middle East's most populous nation, President Anwar Sadat reviews troops at celebrations commemorating the 1973 battle at the Suez Canal. Recovering the remainder of Israeli-occupied Sinai and achieving lasting peace top his list of announced priorities. Since a state of war continues, he diverts a third of the nation's budget to defense. Although most military hardware, including this SAM missile (**below**), is Soviet-made, Sadat now seeks arms from Europe and the United States.

Many Egyptians expect simultaneous internal reform. One student slogan, referring to the high cost of living, asks, "Hero of the crossing, where is our breakfast?"

Sadat attempted in January to reduce government subsidies for basic foods, a years-old policy that adds to Egypt's billion-dollar deficits. Prices jumped and rioting erupted in major cities. Dozens of Egyptians died and hundreds were jailed before the police and army restored calm. Sadat quickly suspended the order.

First Lady of Egypt, Jehan Sadat holds her grandson. His Aunt Lobna, one of the Sadats' four children, joins them in the garden of the presidential palace. An advocate of women's rights, Mrs. Sadat spearheads efforts to encourage family planning, health care, and literacy. She herself enrolled in Cairo University in 1974 and now studies for a degree in Arabic literature.

"May your pilgrimage be blessed." Arabic inscriptions and a folk-art painting on a farmhouse wall near Luxor celebrate the owner's journey to Mecca, the holy city visited by devout Muslims at least once in a lifetime. The artist included ancient motifs to the



right of the castlelike tomb of the Prophet Muhammed in Medina. A reminder of the Arab-Israeli conflict, an Egyptian shoots down an Israeli parachutist at left. The crocodile, a good-luck charm, recalls a pharaonic deity (page 301).

Antique equipment and bare hands still help many Egyptian farmers bring Nile waters—and life—to their fields. One ancient aid, the Archimedes' screw, takes form in the shop of carpenter Fathi Abdullah Mahmoud in Sohag (**right**). A fellah near El Fashn (**above**) rotates a similar device to raise water from a Nile canal to his bean field. He will plant his two-acre farm, spread animal and chemical fertilizers, and pick off pests—all by hand—to harvest three or four crops a year. Intensive cultivation of cotton, Egypt's major crop, produces one and a half times as much per acre as in the United States.

At Kharga Oasis in the New Valley, artesian wells nourish crops—and a child turns a catch basin into a swimming hole (**facing page**).

Search for new resources turns to the 96 percent of Egypt's land that is desert. The Vermont-size Qattara Depression (**above**), a forbidding arid sink of salt marshes and quicksand, lends itself to an ingenious scheme to produce billions of kilowatts of electricity needed for future growth. Water from the Mediterranean, 50 miles away, would be channeled to fall through turbines into

the depression, which could take 50 years to fill. Siwa Oasis (**below left**) was old when Alexander the Great consulted an oracle here in 331 B.C. Growers of dates and olives, herders of sheep and goats, some of the 5,000 inhabitants are abandoning these mud-brick dwellings for government-built concrete homes. A woman of the Oulad Ali tribe (**below**) lives on the western edge of the oasis.

Giant lotus, the Nile Delta blossoms in a Landsat mosaic showing farmlands in red. The pharaohs reclaimed land at El Faiyum, the "leaf" below the Delta. Now Egypt allocates water from Lake Nasser in the south, but for each acre of desert won, another is lost to urban sprawl.

GODDARD SPACE FLIGHT CENTER, NASA

(Continued from page 322)

Change is slow and it is subtle but, given the mood in Egypt today, inevitable. In the village of Mit Kinana in the Nile Delta's rich heartland—where much of Egypt's principal export, cotton, is grown—I spent a day at the home of farmer Mahmoud Attallah.

"My brother, Yahya, and I farm three acres," he said. "It is all we can manage. We rent out another 12 acres left us by our father. Our beans, tomatoes, and green peppers sell well in the Cairo market. The soil is rich; we harvest three crops a year."

Mahmoud, a tall man in his early thirties, wore a gray galabia and a tan felt skullcap. The courtyard of his rambling mud-brick farmhouse was quiet except for the wind in the tamarisks and the chant of young boys in the mosque next door. His wife, Zeinab, climbed down the steep stairway from the roof with a bundle of dried cornstalks to fire a large clay oven. Soon the smell of fresh bread wafted in.

"Once a week we bake, the neighbor women and I, about 200 loaves at a time," Zeinab explained. She returned from the kitchen with a stack of fresh *aish baladi,* Egypt's traditional flat-as-a-platter bread, for us to munch on with our tea.

Inside on one wall, between a faded photograph of Mahmoud's father and a framed view of Mecca, hung a small silk pennant, a souvenir of the day in 1970 when electricity came to the village. With a proud flick of a switch Mahmoud lighted the small room, and we continued to chat into the evening.

"Sometimes we talk about buying a television," Mahmoud said. I had noticed more than one antenna poking up above the village. "But it is expensive, a hundred Egyptian pounds at least. That is half a year's earnings for us. Still, someday. . . ."

Reforms Will Aid the Little Man

Changes in Egypt's politics foretoken a better future for the fellahin. Nasser's revolution broke up the vast estates, limiting holdings to 100 acres per family and making land available to the landless. With government assistance, some 4,000 village cooperatives were formed to help farmers market their crops more profitably. A law guarantees that half the 360 delegates to the legislature must be workers or farmers.

Last year for the first time independents were permitted to run against candidates of the Arab Socialist Union, the official government party. Egyptians 18 and older may vote; men must do so by law. I found the whole country seized by campaign fever.

Voters Helped by Picture Symbols

Half an hour's drive from Mahmoud's village, at the provincial capital of Benha, I got caught up in the excitement: a torchlight parade through the thronging suq, or marketplace, festooned with banners and posters. Besides political slogans, some displayed picture symbols to identify candidates for Egypt's many illiterate voters: a camel, a key, a ladder, a hand. Led by a loudspeaker mounted on a taxi roof, the caucus around me waved a giant portrait of their man, whose symbol was a parasol—a shield against the fierce Egyptian sun.

"Sham-sia, mia fil-mia!" they chanted. "Parasol, a hundred percent!"

Later, at a shirt-sleeved strategy meeting in the home of one of his supporters, I met "Mr. Parasol," Kamal Ed-Din Hussein. Although opposed by the government in this important election, Mr. Hussein carried impressive credentials. One of Gamal Abdel Nasser's "Free Officers" who overthrew King Farouk in 1952, he served briefly as Egypt's Vice-President and for five years as Minister of Education.

"It has been a spirited campaign; emotions are running high," Mr. Hussein said. "Yesterday rowdies smashed and burned the chairs at our meeting hall. After that the police banned candidates from public rallies. So tonight my staff and I are campaigning quietly from house to house.

"You have to remember Egypt's political heritage: five millenniums of despotism. In fact, for most of the 2,500 years from the Persian conquest in 525 B.C. until 1952, Egypt was ruled by foreigners. There is much to know about the fine points of self-government. By Allah, we are eager to learn."

Two days later, Egyptian voters turned out to name the country's first freely elected parliament since independence. I was not surprised to find Kamal Ed-Din Hussein among the winners.

Significant, too, is the fact that women have been elected to the legislative body.

LYNN ABERCROMBIE (ABOVE AND BELOW)

Given creative freedom, children have turned a craft into a fine art. Twenty-five years ago the late artist and architect Ramses Wissa Wassef began to teach simple weaving to village children at Harrania, near Cairo, but gave them no designs. The beautiful tapestries of the first students and their successors (**above**) have won worldwide acclaim.

The shape stays the same in Qena, Egypt's major pottery center. Generation after generation has molded ashes and clay into water jugs, coveted for a porosity that cools water quickly.

Antiquity revived: An abstract phoenix, pharaonic bird of rebirth (**left**), flies across an embroidered and appliquéd window hanging. In silhouette stands its creator, California-trained Nasr Salem.

Compared to their sisters in most Arab lands, the women of Egypt have made great strides in recent years—thanks in no small part to Jehan Sadat, the beautiful dark-haired wife of the President (page 325).

As Egypt's most active champion of women's rights and social reform, Mrs. Sadat travels widely, and I met her several times. Once it was in the Delta village of Tala. She regularly drives the 100-mile round trip from Cairo to preside over the provincial council's weekly meetings.

She also founded the Tala Society for Social Development, to help combat illiteracy and teach village women family planning and health care. She showed me around the society's small garment factory, equipped with the latest cutting and sewing machines.

"Most of the women here work part-time," Mrs. Sadat told me. "The extra money is welcome, of course. But more important, the experience gives them more independence, more self-respect."

In Cairo, where the veil lost out long ago to pantsuits and skirts, a woman serves as Minister of Social Affairs in the President's cabinet. Nearly half of Cairo University's 80,000 students are female. Still, in the countryside most women continue to live in a strongly traditional society, where men make the rules.

"I part company with feminists in America and Europe on one point," Mrs. Sadat told me. "Whatever gains women make in Egypt, home and family will always come first."

Dam Equal to 17 Great Pyramids

Nonetheless, life along the Nile is clearly changing. And no single project is changing it more than the monumental High Dam that blocks the river eight miles south of Aswan. Built with Soviet aid, it cost ten years of effort and more than a billion dollars. Without doubt the Aswan High Dam ranks as one of man's greatest engineering achievements.

At his offices at the site, director Abdel Hamid El-Sayad recalled for me a few of its awesome dimensions:

"The dam is more than two miles wide, 3,250 feet thick at the base, and 365 feet high from the Nile's bed to the 130-foot-wide causeway across the top. There is enough stone in it to build 17 Great Pyramids. Behind it, Lake Nasser stretches for 300 miles."

Completed in 1971, the High Dam has already doubled Egypt's electrical power. One fourth of the dam's output fires half-mile-long banks of reduction cells at the Aluminium Company of Egypt near Nag Hammadi, 160 miles north. This plant—the Middle East's largest aluminum smelter—also was built with Soviet help.

"While world energy prices continue to skyrocket, we have an abundant supply of cheap power," said plant metallurgist Mohammed Ali Abdel-Ghani. Hefting a shiny 30-pound ingot, he added: "We barge 300 tons a day to wire and rolling mills in Cairo."

Lots of Water, but Some New Problems

The dam's greatest impact so far has been on Egypt's agriculture: Its waters have improved a million acres of land, guaranteeing farmers a steady water supply by holding back heavy floods and by providing a reserve for lean years. In 1972, for instance, when Africa was parched by drought, Egyptian farmers were spared.

Not surprisingly, such massive tinkering with nature has produced some serious side effects. Dr. El-Sayad broached one of them: silt. Trapped behind the dam, the fertile Nile silt no longer renews the land.

Farmers must now add more artificial fertilizer. Fortunately the desert is rich in phosphates, though nitrates must be imported. Government subsidies help keep costs within the farmers' reach. Said Dr. El-Sayad: "We can replace the lost silt. But up to now no one has found a substitute for water."

Still, the dam brought other problems. Some 100,000 Nubians living in the narrow valleys above the dam were flooded out of their homes. All have since been resettled. Dozens of archeological sites were lost forever, although two gems, the temples of Philae and Abu Simbel, were saved.*

Less dramatic but more serious is the problem of waterlogging. At his experimental citrus farm near Cairo, Adel Moustafa, a graduate of California State University, explained: "Many fellahin reason that if a little water is good, more water is better. And they are dead wrong.

"Overwatering, along with poor drainage,

*In "Abu Simbel's Ancient Temples Reborn," Georg Gerster documented the dramatic rescue of the huge monuments. See NATIONAL GEOGRAPHIC, May 1969.

is raising the water table, and salts are accumulating in the topsoil. There is no longer an annual flood to carry them away."

Adel's own answer: drip irrigation. He plans to install a network of plastic pipes that will ration water directly to the tree roots. It will be Egypt's first such project.

Under an ambitious nationwide program, wider and deeper run-off canals, underground drain pipes, and new pumping stations will reach 80 percent of Egypt's farmland by 1990.

One consequence of the High Dam has alarmed public health experts: a rise in schistosomiasis, or bilharzia—a debilitating tropical disease spread by snails that thrive in the irrigation canals. Although rarely fatal, the ailment—caused by tiny worms that attack intestines or bladder—weakens the vital organs and ultimately shortens the victim's life. Worm eggs have been found in mummies 3,500 years old. Bilharzia has long been especially widespread in the Delta, but since the High Dam began providing water year round, the disease is on the increase in Upper Egypt.

"So far we have not been able to come up with a vaccine," said Dr. Samir Bassily, an internist attached to the U. S. Naval Medical Research Unit. This tropical-disease team has studied bilharzia in Egypt for more than thirty years.

"According to official figures, 60 percent of Egypt's fellahin have bilharzia," Dr. Bassily said. "I'd guess it's even higher than that. We can cure a patient with a painful series of injections. But a peasant's life is bound to his water. He wades knee-deep while irrigating his fields; the canal is his bath and his wife's laundry. And how do you keep the children from swimming?

"So he goes back to his village and soon becomes reinfected."

Mummy Board-stiff After 1,700 Years

Although the Aswan High Dam may enable Egypt to expand its farmland to 7,000,000 acres, experts agree that farmers then will have reclaimed almost all they ever will from the Delta and narrow valley of the Nile. Planners have now begun to look to Egypt's deserts, vast areas the size of Texas, Oklahoma, and Louisiana combined.

Until recently these wastelands were home to only a few Bedouin, who roamed dusty tracks between scattered oases. Geologists have penetrated these desolate regions, and today important deposits of phosphate and iron are being mined.

The ancients, too, worked the desert, for gold and precious stones. Their mines are long depleted, but they left many traces in the oases they once ruled. In Siwa, near the Libyan border, I climbed to the ruins of the temple of Jupiter-Amun, once visited by Alexander the Great. I splashed in a Roman cistern in El Bahariya. Deep in central Egypt, in Kharga, an archeologist brought out for me a mummy preserved down to his eyelashes and fingernails—and stiff as a board—from a third-century Christian tomb.

Blooming Desert—a Dream Coming True?

I had driven to Kharga down the new asphalt road that winds across the desert from the Nile city of Asyut. Kharga is the capital of a string of oases more than four hundred miles long—an archipelago of date-palm islands in a sea of sand that comprises the province Egypt calls Wadi El Gedid: literally, the "New Valley."

"After sinking 360 test wells, we are sure now there is an immense reservoir of fresh water under the desert here," said Ahmad Abu Elela, an agricultural engineer. "There is enough, we calculate, to irrigate half a million acres for 700 years."

While we talked at Ginnah No. 6, a six-inch artesian well drilled 2,000 feet deep, a pack of small boys laughed and splashed in a storage basin the size of a swimming pool. From the well a concrete flume led to a stand of ripening barley—160 green acres snatched from the desert two years before. Twelve miles north of Kharga town, I was surprised to find a cluster of large ponds—and was deafened by the quack of 14,000 fat white ducks.

I lunched with Governor Ibrahim Shoukry at his residence, set amid a grove of towering date palms in the heart of the oasis. To a traveler coming in from the 115-degree desert heat, his cool garden, banked with flowering poincianas, roses, and oleanders, seems a paradise indeed.

"We Arabs, too, can make a desert bloom," the governor said with a smile—and a barb at the Israelis. "Seriously, we have doubled the water supply in Kharga and Dakhla Oases

Rising into a pyramid, water jugs burden a felucca near Qena. By boat and

donkey, truck and camel, the jars find their way to almost every village in Egypt.

over the past ten years. But drilling is costly.

"We are now studying the feasibility of cutting a 150-mile canal to bring in water from Lake Nasser. It is a bold plan, a plan for the future, when Egypt can better afford such an undertaking.

"But when it is done," Governor Shoukry concluded, "the New Valley will rival the Nile."

Seawater for a Desert Power Plant

Even bolder is a project planned for Egypt's northern Sahara, about 250 miles west of Cairo. There, a German consortium studies plans to blast a 50-mile-long waterway, perhaps with nuclear explosives, from the Mediterranean to the edge of the vast Qattara Depression (pages 330-31). The floor of this broad basin reaches 436 feet below sea level.

"Water from the sea will plunge down, driving turbines of a hydroelectric plant," the project director in Cairo explained. "Eventually—estimates run anywhere from ten years to half a century—the depression will become a body of salt water the size of Lake Ontario."

With engineer Rüdiger Wagner, I bounced by Land-Rover across the burning plain south of the coastal village of El Daba, following the line of red-and-white stakes that mark the survey.

"We must stay close to the survey line," Rüdi warned, after we crossed into the open desert. "This whole area was heavily mined during the Battle of El Alamein in World War II. Last year a jeep was blown to bits; the driver was killed. But don't worry—this track has been cleared."

Two hours inland from the coast we pulled up abruptly and walked carefully to the edge of the escarpment. The desert dropped away in a thousand-foot tumble—like the Grand Canyon, I thought, with the other side missing. Through the valley below wound a bright strip that looked like a river.

We navigated with care along the ragged edge to the promontory of Minqar Abu-Dweis and followed an oil-company track to the bottom of the pass, then turned west into the black, forbidding heart of the Qattara. I found little comfort on my map; this area was marked: "IMPASSABLE FOR CARS AND DANGEROUS FOR LOADED CAMELS."

"A party of two Volkswagens became mired in these salt marshes back in 1963," Rüdi said gravely. "They were not prepared for the desert at all, poor devils. Apparently they tried to walk out. Their bodies were found several miles apart."

We camped two days on the tortured valley floor, far below sea level, measuring the water table. In places it seeped to the surface, streaking the sands with flows of gleaming white salt crystals—the "river" I had seen from the escarpment. Here the Qattara's water is saltier than the Dead Sea's.

"Tests will help us determine the evaporation rate in the area," Rüdi said. "Meanwhile, other scientists are studying the effects the lake might have on the freshwater tables under the surrounding deserts. The lake might even affect local climate and environment. The studies will take three years; construction of the waterway, at least seven."

Speak of Egypt, Speak of the Future

Such is the prevailing mood one senses the country over today. In conversations with Egyptians or the growing numbers of Western scientists and businessmen come to share their destiny, whether speaking in Arabic, German, or English, everyone tends to use the future tense.

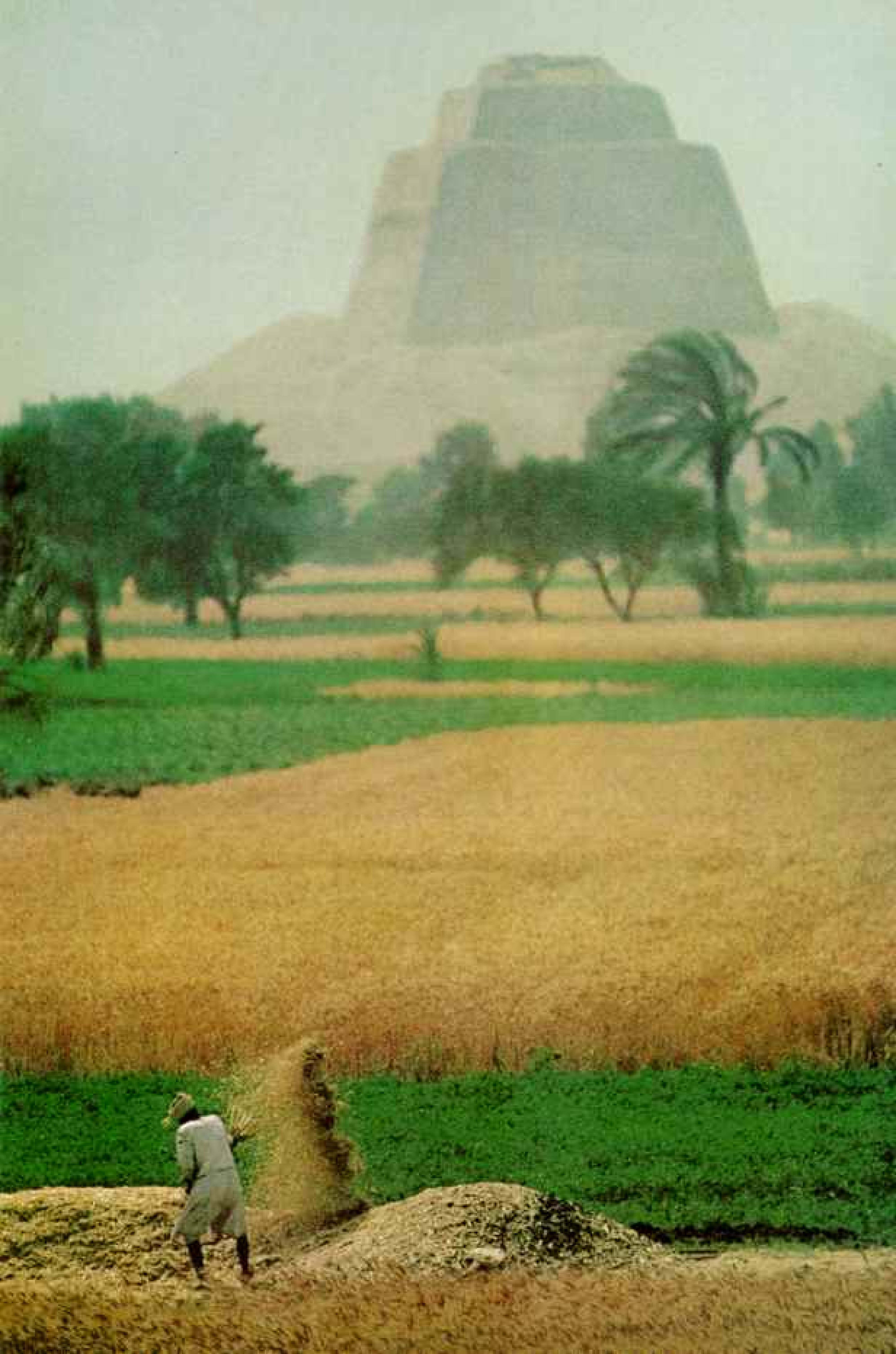
Such talk is not new. I recalled the line from an ancient papyrus, a "manual of good conduct," composed by one Amenemope 3,500 years ago:

"Do not say today is the same as tomorrow, or how will matters come to pass? When tomorrow comes, today is past."

From El Alamein I caught the bus to Alexandria, then a taxi back down the desert road to the capital.

Coming in through Giza, I saw those massive, changeless Pyramids once more. Now they seemed mere pointed shadows against the blazing lights of Cairo. * * *

One of Egypt's great wonders, the 4,600-year-old Pyramid of Meidum near El Faiyum looms in the desert beyond a farmer winnowing grain. Since Egypt cannot grow enough to feed its fast-multiplying population, much of the land is planted in export crops—cotton, oranges, rice, and potatoes. Profits pay for imported grain.

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CASINO &
PAIX TOURISTIQUES

"A city at once sacred and profane," wrote Lawrence Durrell of Egypt's second largest metropolis in his *Alexandria Quartet*. Founded by Alexander the Great in 332 B.C., Alexandria flourished under the Greeks, claiming the most extensive library in the ancient world. The city declined even before the establishment of Cairo as the capital in the tenth century A.D., but began a revival in the early 1800's under Muhammed Ali, founder of modern Egypt.

Today the city not only is Egypt's premier port, handling 80 percent of the country's overseas traffic, but also ranks as one of the top tourist centers of the nation, particularly with Egyptians themselves. In summer the city of two million adds another million. At one of several crowded beaches, a young man (**upper left**) finds enough room for a game of paddleball. French sailors on shore leave (**lower left**) share a leisurely ride on the Corniche, a 10-mile-long boulevard that skirts the city's seafront. Near Anfushi harbor, where fishermen tend their nets (**above**), land values are soaring. Egyptians and oil-rich Arabs are building villas, tourist hotels, and luxury apartments—new monuments of a resurgent nation. □

The Buffalo, our first "national river" and the only major undammed stream in

AMERICA'S LITTLE MAINSTREAM

By HARVEY ARDEN
NATIONAL GEOGRAPHIC STAFF

Photographs by MATT BRADLEY

NATIONAL GEOGRAPHIC PHOTOGRAPHER WALTER MEAYERS EDWARDS

the Arkansas Ozarks, merges with the currents of the White River, at right.

OUT IN THE DOWN-HOME HILLS of the Arkansas Ozarks runs a 148-mile wriggle of near wilderness that maps call the Buffalo River and local folks call just "Buf'lo." Kicking its white-water heels through sparsely populated hills as tough and worn as a farmer's overalls, this frisky calf of a stream—one of a dwindling number of undammed rivers in the eastern half of the United States—was set aside by Congress in 1972 to run forever free as America's first officially designated "national river."

As rivers go, the Buffalo is far from the longest or widest or fastest flowing or deepest gorged. Yet if you happen to be looking not for extremes but for a golden mean, then the Buffalo's subtle spectrum of rough beauties approaches perfection.

Walled by limestone bluffs that curve to the sky, it spills through forest gorges, winds past hollows swathed in ferns and hung with slender waterfalls, and meanders through meadowlands and primitive wilderness. Often it deepens into emerald-green bass pools before sweeping out past broad gravel bars that offer nearly bug-free camping to those

The last laugh's on everyone as canoeists who have made it past Gray Rock—an infamous spot for getting wet—enjoy the spectacle of others attempting the same tricky stretch. Two canoeists (**below**) bottom out on a shoal and head for an unplanned dip.

Though less hazardous than many other canoeing streams, the Buffalo still offers real dangers to the unskilled and the unwary. Novices are advised to try the lower river in summer before braving the upper reaches in tempestuous spring.

who come here to float, paddle, fish, or hike.

Except for its uppermost 16 miles, which lie within a segment of Ozark National Forest, the Buffalo flows within the protective boundaries of a narrow, riverine kingdom that will eventually encompass 95,730 acres administered by the National Park Service (map, page 350).

In all its lazy-looping miles, the Buffalo is spanned by only seven automobile-bearing bridges—five of them regular highway bridges, the other two mere slabs of concrete called low-water bridges, which are impassable when the river is high.

It was beside one of these—the Ponca low-water bridge on the upper Buffalo—that I parked one blustery but clear-skied day in April to watch contingents of river runners putting in with their canoes.

The river ran brown and swollen with overnight rain. Rumbling along with washing-machine frenzy, it tossed up tassels of spray as it scoured downstream.

Tyro's Kayaking Wins No Laurels

Among the rivercraft was a dainty blue-and-white kayak. I watched a burly, grizzled man unstrap it from his car top and tote it as easily as a matchbox to the river's edge. While his companions stowed gear in their aluminum canoe, he tapped his foot impatiently.

"Taking her out by yourself?" I asked, eyeing the empty forward cockpit.

He nodded.

"Don't suppose you'd let me sit in for a short ride?" I persisted. "I've never tried a kayak. You can let me out downstream a ways, and I can hike back up."

WALTER MEAYERS EDWARDS (ABOVE AND FACING PAGE)

"I'm too busy to be lonely," declares "Granny" Eva Barnes Henderson, who at 83 lives alone in a small, time-weathered house near the banks of the Buffalo.

Accompanied by her dog, Bobbie, she spends a full day on "chores, chores, 'n' more chores"—caring for her cows, a yard full of perpetually squawking chickens, and what are reputed to be some of the best-tended hogs in Newton County, Arkansas. Countless trips carrying buckets of water for her cattle have worn smooth a path from the river's edge to the watering troughs.

Asked about the establishment of the new national river, which will eventually require most residents to move outside park boundaries, Granny just shrugs and shakes her head. "Movin' out o' here would mean givin' up all I've got, all I've ever had," she sighs. "I hope to stay just as long as the Lord and those Government folks allow.

"Now, if you'll 'scuse me, I got to go huntin' after eggs. Ever since that raccoon got in the chicken house, not a hen will set foot in there. Now I have to hunt all over creation to find the eggs!"

He gave me a rough up-and-down glance.

"Prefer it alone," he said flatly. Then he shrugged. "Well, maybe for a few minutes. Don't paddle 'less I give a yell, hear? You'll only foul things up. Come on, get in."

While he braced the fragile craft, I slipped into the bow cockpit—a maneuver not unlike fitting yourself feetfirst into a banana skin.

"Brace your feet up front," he barked. "And lean forward. Don't shift 'round."

Just as a second thought started to assert itself in my mind, we pushed off. Instantly the current gripped us, surging and singing beneath the canvas-membraned hull. Spume flew past our elbows. Riverbanks raced by in a blur of greens and browns. I let out a whoop as we boomed through a foaming chute, my knuckles death-grip white on the paddle. The protruding rocks seemed to leap along with us as we dodged and dipped between them. Limestone bluffs loomed high above the turmoil, stationary as postcard pictures. I absorbed the torrent of sensations in an almost dreamlike state. But then, through the river's roar, came my companion's voice: "Paddle left! Paddle left!"

We had swung wide on a turn and were heading straight for a tree branch dangling into the water. I pulled furiously. The kayak jumped sideways like a bucking pinto, nearly clearing the obstacle, but then an errant branch whipped me square in the chest. Instinctively I grabbed on—a mistake. The craft instantly pivoted around, nose upstream, out of control. I froze.

"Let go!" he shouted, his voice verging on hysteria. "Let go of the damn branch!"

I did. The kayak began rolling over, then somehow righted itself. Flipping one way, then another, it pointed downstream once again, and we were flying free. A miracle. My heart did several flip-flops, but I had tasted my first draft of white water on the Buffalo National River and found it heady stuff.

Moments later we slid up to a bank.

"That's it," he said. "Better hike out from here while you still can."

I thanked him, pulled my trembly legs from the kayak, and watched him skitter downstream with the grace of a water bug, disappearing around a bend and out of my life.

Midstream Ramble Reaps Reward

It was on another kind of day, a hot, insect-humming afternoon in late August, that the Buffalo showed me another of its many personalities. The river rarely runs with more than a feeble current in these late-summer dog days, and I found myself behind a 17-foot aluminum canoe, pushing it down a cobble-stoned riffle barely six inches deep.

"National river my foot!" I muttered to myself, repeatedly stubbing canvas-shod toes on the rocky streambed. It seemed almost as if the river was about to give out altogether, when—abruptly—draining out of the riffle and rounding a leafy bend, it widened and deepened into a smooth green pool set amid stone bluffs. Overarching trees gave the scene all the formal perfection of a cathedral nave. The late pink sun burned high on the bluffs with stained-glass intensity, casting down an almost sacramental glow.

I slipped back into the canoe with my

paddlemate, Neil Compton of the Ozark Society, and we sliced silently through the sun-lacquered surface. A sudden splash of silver off to the left disturbed the quietude.

"Bass!" whispered Neil. "See the stripe? Must be 14 inches!"

We watched the wily largemouth disappear among shadowy boulders below. Neil gestured at the sanctuary-like setting.

"Everything you see here," he said, "everything except the tops of those bluffs, would have been submerged beneath a reservoir behind one of two dams the U. S. Army Corps of Engineers had planned to build."

The mild voice of this white-haired Arkansas physician took on a warrior's tone—not unfitting for one of the Ozark Society's field generals in the decade-long, odds-against struggle to save the Buffalo River from a watery grave. That struggle had resulted in the Buffalo *National* River.

"Even the bass you just saw would be gone if the dams had been built," Neil continued. "Deep-reservoir waters are too cold for bass. The Buffalo—what was left of it—would have been restocked with trout, like every other dammed-up river in the Ozarks.

"I've got nothing against trout, of course. But I ask you, is becoming a string of man-made trout lakes any fate for one of America's last classic bass streams? Wild rivers, I'm afraid, are a vanishing species."

Getting off the river for a while, I moseyed by car one day among the old logging and mining roads that lace these hills. I jounced down one precipitous rock-ribbed rut near Ponca until confronted by a huge red mud puddle, then parked and hiked on down.

As I walked, I kept a small rock skipping ahead of me with my foot. A glance across tilting cow pastures on either side revealed countless thousands of similar small rocks. Geologists call this rock chert—a flintlike stone that weathers out of the softer limestones underpinning the region. Pick one up and you're likely to find fossil impressions of tiny creatures that swam saltwater seas here millions of years ago—a fact of little comfort to the hardy folk, sometimes called "flint farmers," who began settling these plow-stubbing hills in the 1830's. Many of their old walls, made from fieldstones, still stand long after the homesteads they once bordered have disappeared.

Boy Fought School With Burning Zeal

I passed an old cabin, its chimney stones tumbled and porch boards collapsed, its tenants obviously long gone but its dooryard defiantly abloom with a marvelously unkempt pink rambling rose.

Farther downhill I came to other farm buildings, equally weathered and splay-backed, but still upright. From one stovepipe chimney curled a thin plume of smoke, and at the rose-adorned dooryard gate, smiling brightly as a rose herself, stood a gracious lady whose existence sums up better than any history book the fast-fading pioneer past of the area.

"I'm more'n eighty year m'self," she said, when I asked about the time-ruined house on the hill, "but that old cabin was way old when I was just a snip of a girl."

Remaining its wild self through it all, the Buffalo has seen waves of people come and go—Indians, hunters, loggers, farmers, zinc miners. After the game and hardwoods were gone, and the zinc market collapsed in the 1920's, the riverbanks were littered with moldering remains of abandoned homesteads. Today a new wave of settlers and visitors arrives, lured by the region's beauty.

To preserve the unspoiled character of the Buffalo and its banks, Congress in 1972 created the Buffalo National River—a unique administrative unit of nearly 96,000 acres with a broader corridor and under tighter control than streams in the National Wild and Scenic Rivers System.

"This river is too beautiful to die," said Supreme Court Justice William O. Douglas in 1962, protesting plans to dam the Buffalo. A decade later, environmentalists led by the Ozark Society won the "Battle of the Buffalo" when the river was given virtual national park status. Visitors savor a limpid bass pool (**above**) and explore waterfall-plumed Hemmed-in Hollow (**right**). Rock-climbing on the crumbly limestone bluffs has injured so many climbers and onlookers that the sport is now strongly discouraged by park rangers.


Her name, she volunteered proudly, was Eva Barnes Henderson (pages 348-9). "Trace my folks back to President James Buchanan. I'm his great-grandniece, or so my ma taught me.

"I could tell you stories about folks who lived up in that old cabin," she said, wrinkles creasing into a pixie smile.

"Was once a boy lived up there, f'instance, who burned down the schoolhouse one day, right down there by Center Point, right at the river. You can still see the char stumps when the river uncovers 'em after a flood. This boy, he didn't like the teacher much. Well, they went and built another schoolhouse nearby and this same boy, why, he goes and burns down the second school the very weekend before it was to open. So off he went to reform school and, wouldn't you know, got an education better'n many kids did here. Turned out to be a fine, respectable man. These hills breed per*sis*tence in a body, I tell you."

I asked her what she thought of the establishment of the new national river.

"Well, 'course, folks like me, livin' right here on Buf'lo, you can't expect us to like the idea. What really bothers me is they're gonna let it all go wild again. I know some folks like

TERRY WALKER (BELOW)

Serendipity's backyard, the wild and rustic banks of the Buffalo offer visitors a ceaseless parade of the beautiful and, at times, the whimsical. A horse and canoe—unlikely stablemates—share a sheltering roof (**left**) near the little community of Gilbert, popular put-in point for canoeists.

Around every turn some unexpected cameo of nature confronts the eye. Water from a spring (**above**) cascades through a riverside "fern fall"—a small but exquisite preserve of maidenhair ferns. Black-eyed Susans (**right**) wink at passing canoeists.

that idea. But, lan' sakes, I can remember helpin' clear these fields and hammerin' up many o' these buildings. Things you work that hard doin', seems t'me, ought to be allowed to last forever."

Preservation is Part of the Plan

Back in Harrison, chief town for outfitting forays along the river, I talked with Don Spalding, then superintendent of Buffalo National River.

"We plan to save as many of the old pioneer buildings as we can," Don explained, "though it's impossible to resurrect anywhere near all of them. That old cabin above Mrs. Henderson's is one we've already purchased. Some will be maintained right where they are. Others may be rebuilt into a re-created pioneer Ozark village.

"Of course, the national river is still in its infant stages as far as development is concerned. But even when we're in full gear, visitor amenities will be minimal. Congress commissioned us to keep the national river as wild as possible, and that we intend to do. Supplies and lodging, for the most part, will have to be obtained outside the national river boundary. Folks who come here are going to

see the Buffalo on her own terms, not theirs."

And that was the way we saw it, my family and I, when we came to entwine our own lives with that of the river one day in late June. This was supposed to be prime family floating season on the Buffalo. But, apparently, no one had mentioned this widely known fact to Buf'lo herself.

"This river is closed!" the ranger at Buffalo Point told us. "She's up more than 18 feet! The biggest rise of the year. No canoes will be allowed on the water for at least a day or two. And, frankly, I'd say it'll be five days before you can feel safe going out with *them*." He nodded toward my son Mark, 6, and daughter Elisa, 3.

We had arrived the day before—my wife, Lorraine, and I and our two small ones, plus my sister-in-law, Mary Kimsey, and her three children, Jim, 15, Kevin, 14, and Laurie, 10. That first sunny, balmy day had been perfect. We practiced our J-strokes and U-sweeps down at Buffalo Point beach, honing paddling skills for our projected float down the river.

Then, that night, Kevin decided he would sleep out beside the river—tentless. And, of course, that same night the rains began. We had an anxious time, wondering how he was

Sundries by the riverside: General store at Gilbert on the middle Buffalo offers canoeists a rare chance to take on ice and supplies while sampling a yesteryear atmosphere of rural congeniality. Tiny post office in the store (**above**) gives local folks a daily reason to do what they'd probably do anyway—come in and shoot the breeze.

faring out in the rain. A bit after dawn he arrived back at the cabin, his blanket and clothes wet through, with a breathless tale of having been forced out of a riverside cave by the rising waters. We all went down to the beach where we'd maneuvered the day before, only to find it beneath a dozen or so feet of muddy floodwater.

Canoeing would have to wait. But flood or no flood, the creeks leading into the Buffalo remained accessible, and we spent a marvelous day at Rush Creek, where we explored a "ghost town," an old zinc-mining camp.

"Wild Life" Didn't Mean Animals

I talked with old-timer Fred Dirst, who had worked in Rush's zinc mines as a lad, when the boom town was wide open. "This was as wild a place—human wild, I mean—as you can imagine," he said. "Used to be there were 19 teams haulin' zinc ore outa Red Cloud Mine alone. They used a lot of that zinc for cartridge and shell casings in World War I. After the war the market went bust, and Rush stopped rushin'. Stopped altogether, in fact."

Exploring Rush Creek, the three older kids were soon leaping off a low cliff into a deep pool, while the younger ones waded about in search of frogs and turtles. Some blackberry bushes yielded their treasure to my little daughter, Elisa, whose imperial-purple smile of satisfaction was a wonder unto itself.

Another of the innumerable magical locales along the Buffalo is Lost Valley, between Boxley and Ponca. Following an unimpressive-looking creek a few hundred yards upstream, you come upon a tunnel in a rock wall through which flows a charming little waterfall. Walking right through the hole, you emerge into a deep gorge at the upper end of which perches a huge rock overhang called Cob Cave.

Here, a few decades back, archeologists found thousands of small corncobs—remnants of countless meals of the bluff-dwelling Indians who lived in these parts for a hundred centuries or more before being pushed out in the early 1800's.

Each day, while we explored the river's banks, I kept tabs with the ranger station on the Buffalo's floatability. Having crested on Saturday night, the waters had settled down to near normal by Wednesday morning. At last, gear and small kids stowed amidships, our three canoes put into the river, which finally extended its hand in welcome to us.

I'm thankful to report no mishaps on our float, except for a few slight collisions with midstream rocks. In deference to the smaller children we canoed only four hours or so each day, camping early and immersing ourselves in the river's endless fascinations. Jim and Kevin played king of the rock on a large boulder in the strongest part of the current. Laurie chased crawdads in the shallows and made friends with a large black caterpillar. Young Mark, after much searching, returned to the tent triumphantly with a small toad that became his inseparable companion.

Childlike Wonder Welcome Here

When we ran out of bread, Lorraine conjured up a piping-hot corn bread that seemed nothing short of miraculous in that rock-and-water world. At night we watched the fireflies mingle with the stars and fell asleep soothed by cool winds sighing in the river birches. One night some distant lightning and thunder momentarily threatened our tranquillity, then faded away.

And so we were befriended by the Buffalo National River. Just before leaving, Mark released his pet toad, and his little boy's tears mingled with the waters of the river. I remembered being moved earlier by a marker at Buffalo Point that reads: "There are little corners of this earth put aside by nature to be discovered by and to bring joy to little boys. The lands over which you look here, across this beautiful river, are such a corner . . . set aside forever for all little boys. . . ."

And, I might add, for the little boy—or little girl—in each of us. □

On a fine April day a pleasure armada skims the rain-swollen waters of the upper Buffalo near Big Bluff. Each season has its special fascinations—spring's wild waters and dogwood blossoms, summer's slow-moving serenity and isolated bass pools, fall's blazing foliage, winter's icicle draperies on riverside bluffs. It's truly a river for all seasons—and for everybody. WALTER MEAYERS EDWARDS

THE PHILIPPINES

Better Days Still Elude an

By DON MOSER Photographs by BRUCE DALE NATIONAL GEOGRAPHIC PHOTOGRAPHER

Old Friend

IF GREAT CITIES have rhythms, Manila's is certainly "La Salsa." Filipinos are compulsively musical, quick to adopt the latest fad; nowadays the spicy beat of that Latin dance step blares from every record shop, beer house, and "disco pad," and the city—noisy, flashy, redolent—vibrates in cadence.

Jeepney buses, chrome-festooned extravaganzas built around jeeps, speed through the streets with stereos blaring. Around the hotels, sidewalk entrepreneurs offer their wares or services—"Some fine opals, sir? You like to see Manila with a native, mum?"

At night along narrow M. H. del Pilar Street, scores of cubbyhole bars with names like the China Coast and the Queen Bee promise sailors on liberty a variety of delights that are by no means forbidden. In Rizal Park bordering Manila Bay, couples walk hand in hand, and the bright dresses of the women are luminous in the tropical dusk.

I have a special fondness for Manila, and I've visited it often over the years. I'd come back now, after a long absence during which both the city and the nation had undergone radical changes. A new rebellion had erupted in the southern Philippines, and another, in a new guise, was flaring in the north. The President had declared martial law and seized dictatorial powers. In the post-Viet Nam era,

Carnival on wheels, a Manila jeepney (**left**) reflects the upbeat ambience of life in the Philippine capital—a vibrant metropolis despite the martial law that is throttling democracy in the nation today. Evolved from customized World War II jeeps, these minibuses provide hair-raising, though vital, public transportation (**top**).

Luzon's stair-step rice terraces are still farmed by Ifugao tribesmen, whose ancestors completed them a thousand years ago.

anti-Americanism appeared on the increase.

The Philippines and the United States share a lot of history. Like most Americans who've spent time in the islands, I've experienced the warm friendship that so often grows up between Americans and Filipinos. Now I wanted to see for myself what had changed—and what had remained the same. And I wanted to learn, too, if I still felt at home.

The sprawling Republic of the Philippines lies in the Pacific just north of the Equator (map, facing page). The archipelago's 7,100 islands are inhabited by 44 million people who speak more than 80 languages and dialects. The Filipinos are Asians, but they are not like other Asians. Their Malayan culture has been influenced both by the Spanish, who occupied the islands for more than three hundred years, and by the Americans, who occupied them for almost fifty. Indeed, about half of all Filipinos speak English, and even when speaking Pilipino, the official language based on Tagalog, they are apt to toss in English or Spanish words.

In a part of the world where conservatism is traditional, the Filipinos are flamboyant and outgoing. To my eye, the women are the most beautiful in Asia, and they are likely to respond to an admiring glance with a frank stare of their own. The men bear themselves with a distinct air of machismo; they love basketball, cockfighting, firearms, and automobiles, and they are quick to smile—or fight.

The country itself is often stunningly beautiful. The roadsides are bright with cascades of electric-pink bougainvillea; the forests are alive with iridescent butterflies, and kingfishers so brilliant they seem to glow from within.

Manila's Wild Reputation Lingers

The archipelago's center of culture and power is the city of Manila, which stretches along a great bay on the northern island of Luzon (pages 366-7). During the late 1960's Manila was the habitat of thugs, gangsters, and political bosses, and the signs at the entrances of bars warned patrons to check their guns at the door. It was known as one of the most violent cities in Asia, if not the world.

Martial law has ended much of the violence, yet a visitor still feels an atmosphere of social unease. Tens of thousands of Manilans live in squatters' shacks, and many of them subsist on little more than a dollar a day; their own poverty is all the more evident because they live in proximity to other Filipinos whose life-style is nothing short of opulent.

A mile east of Manila is the municipality of Makati. Once a swampy wasteland, it has been transformed into one of Asia's most impressive displays of modern architecture. Along broad avenues rise tall, spare buildings that house banks and multinational corporations. Nearby lie residential communities such as Forbes Park, where homes sell for hundreds of thousands of dollars.

Shoot-'em-up Mayor Tames Town

For all its elegance, Makati not long ago had a high crime rate. Then along came a new mayor, Nemesio I. Yabut. I knew that Yabut, in the tradition of Filipino politicians, was a colorful character—a former movie actor and waterfront boss.

But I wasn't prepared for what I found when I went to his office: a big, muscular man behind a desk, shouting, "I have a headache! I have high blood pressure! Where is that doctor?" Yabut buried his face in his hands, while subordinates scurried off to find a doctor.

After a moment he looked up, realized he had a visitor, and said, "You have a job in politics here, you have to crack the whip, push all the time." A moment later a frightened-looking doctor arrived, and as he took the mayor's blood pressure, Yabut came to life.

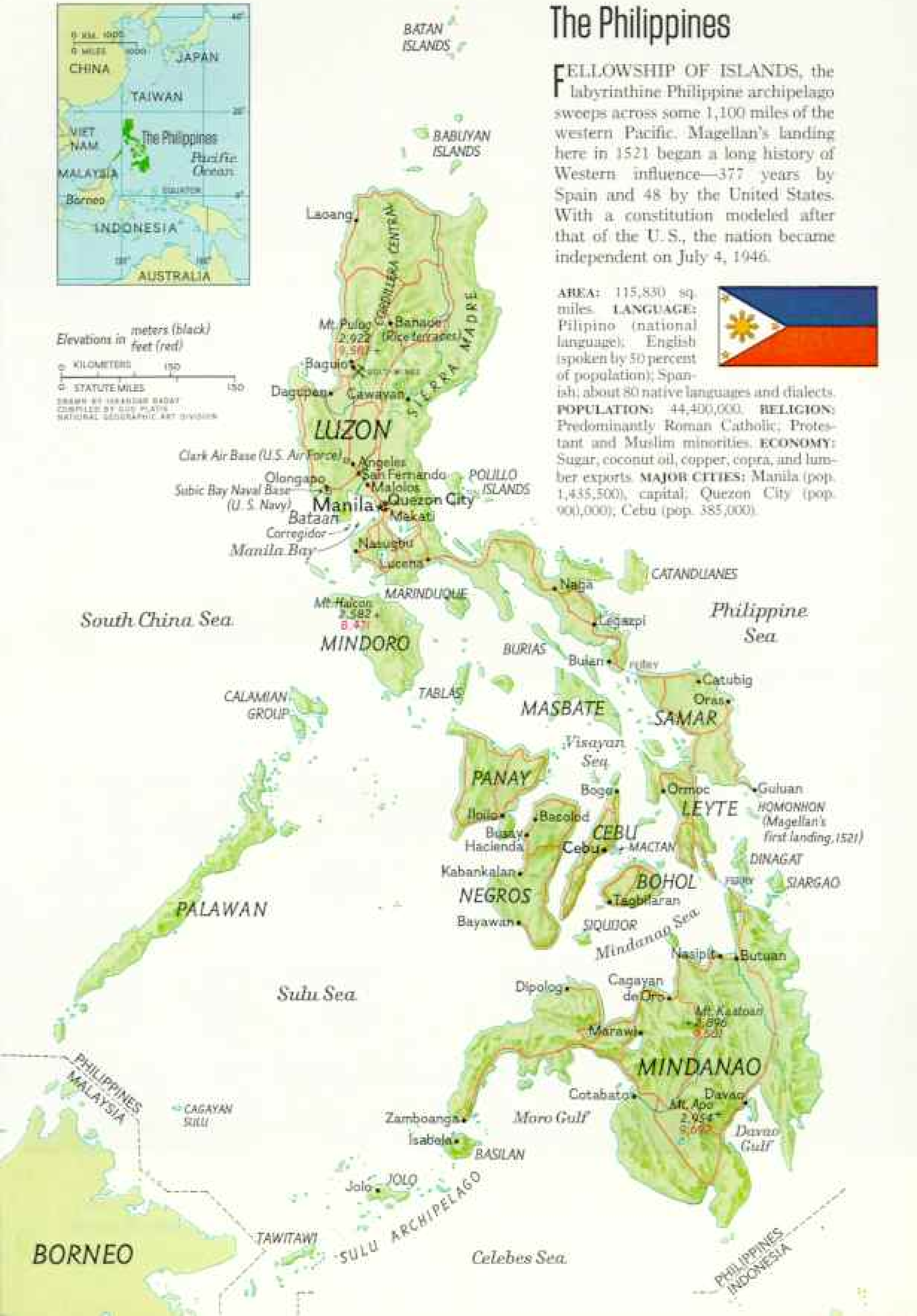
"Before I came to Makati," he said, "some residents of Forbes Park taught their maids to use carbines, and built their houses with bunkers. There were dope pushers, payrolls were stolen, banks were robbed. Three months after I became mayor, all that was changed. You know, we had to kill the local gangsters here—in the lobby of the Intercontinental Hotel. They were there to kill me because I had stopped their extortion racket. Five were killed by me and my policemen." Yabut grinned with satisfaction, flexed one of his massive biceps, and said, "You cannot be a mayor in Manila without machismo."

The new Makati was developed by one of the country's oldest family companies, the Ayala Corporation. One day I visited Jaime Zobel, one of the two cousins who run the company, in his office atop the Makati Stock Exchange. A tall, patrician man, he spoke with enthusiasm of the development. But when I commented that nowhere was the gap

The Philippines

FELLOWSHIP OF ISLANDS, the labyrinthine Philippine archipelago sweeps across some 1,100 miles of the western Pacific. Magellan's landing here in 1521 began a long history of Western influence—377 years by Spain and 48 by the United States. With a constitution modeled after that of the U.S., the nation became independent on July 4, 1946.

AREA: 115,830 sq. miles. **LANGUAGE:** Pilipino (national language); English (spoken by 50 percent of population); Spanish; about 80 native languages and dialects. **POPULATION:** 44,400,000. **RELIGION:** Predominantly Roman Catholic; Protestant and Muslim minorities. **ECONOMY:** Sugar, coconut oil, copper, copra, and lumber exports. **MAJOR CITIES:** Manila (pop. 1,435,500), capital; Quezon City (pop. 900,000); Cebu (pop. 385,000).



An international showcase takes shape beside Manila Bay as the government of President Ferdinand Marcos beautifies parks and reclaims thousands of waterfront acres, top center, for new office buildings, hotels, and condominiums. Critics point to nearby

Tondo, which harbors one of Asia's largest squatter settlements, and question priorities. Though pledging help for the blighted area—and getting assistance from the World Bank—Marcos drives ahead with his construction blitz for business interests.

between the rich and poor more evident than it was between Makati and nearby slums, Zobel nodded. "The solution is more distribution of wealth," he said. "It has to be fair, but it has to happen soon."

Marcos, the Master of Martial Law

Whatever happens in the Philippines these days rests in the hands of President Ferdinand Marcos, who four and a half years ago ended the country's short-lived experiment with democracy. During the Spanish-American War of 1898, Commodore George Dewey defeated the Spanish fleet in Manila Bay and the U. S. took possession of the islands, simultaneously ending more than three hundred years of Spanish domination and nipping burgeoning Filipino nationalism in the bud. As new colonialists, the Americans on one hand referred to the Filipinos as "our little brown brothers" and on the other used plenty of gunpowder to keep them in line. But the Americans did promise the Filipinos eventual independence and did teach them the principles of democratic government.

Independence and true democracy came on July 4, 1946, although not quite the kind of democracy Americans had envisioned. The country was dominated by great oligarchies —wealthy families with feudalistic power. Local politicians recruited private armies and bought or coerced votes.

Then in September of 1972 President Marcos declared martial law. He dismantled private armies and jailed thousands of student activists, journalists, and political opponents. He broke up the holdings of some oligarchies and proclaimed that he was going to create a "New Society" with opportunity for all. Ever since, Marcos has ruled as a virtual dictator, though not as an all-out despot.

I visited him in Malacañang, a magnificent palace built for a Spanish grandee. Ferdinand Marcos is an impressive man (page 371). He is fine boned, handsome, and articulate.

Why, I asked, had he declared martial law?

"There was no alternative if the republic was to continue," he said. "In Luzon, Communist-front organizations were staging violent demonstrations. We had a secessionist

Hustling auto worker installs a side panel in a Toyota assembly plant. Earning about $750 a year, he looks forward to the day when he can afford the product of his efforts. With abundant cheap labor, the Philippines attracts millions of dollars in foreign capital —mostly from the United States and Japan—spurring industrial development. Most Filipinos, however, still work the land and earn less than $300 a year.

movement in the south. Things degenerated until our economy came to a stop. The country was in a state of anarchy."

Marcos went on to talk about his accomplishments under martial law: a long-overdue land-reform program, improved social services, a drive against corruption. Finally I asked him when martial law would end.

He answered, "When I proclaimed martial law, I announced that the purpose was to extirpate the causes of rebellion—the social injustices, the distortion of our democratic elective process." Clearly, martial law was going to stay in effect—and Marcos in charge—for some time to come.

Censorship Silences Opposition

Supporters of the administration often say to foreign visitors, "You see no tanks on the streets, do you?" And indeed there is little visible evidence that the country is squirming under a dictator's bootheel. Ordinary people I talked with—taxi drivers, fishermen—were delighted with their freedom from harassment by "holduppers" and the torpedoes hired by local politicians. And the economy has returned from near disaster.

But not everyone is happy in the New Society. Intellectuals, students, and many journalists are deeply resentful. "There is a climate of fear here now," a Roman Catholic clergyman told me. The Manila press, once free and freewheeling, has become a muzzled and obedient servant, dutifully reporting on the President's activities and decrees. "It's good to talk to an outsider," a journalist said. "When we talk to other Filipinos now, we're afraid to commit ourselves."

Critics claim that Marcos's real motive in declaring martial law was to perpetuate his personal power, and that he is simply replacing an old feudalistic order with a new one. They point to the fact that Marcos's energetic wife, Imelda, has become more and more a presence in the government (next page). Her personal projects—which encompass everything from a new center for the performing arts to hospitals and welfare centers—have given rise to speculation that Marcos is grooming her as his successor.

Bull-market frenzy grips the Makati Stock Exchange after news of a possible oil strike in the energy-poor Philippines. Under the Marcos regime, exports and foreign exchange have shown considerable improvement, and with World Bank and International Monetary Fund help, the nation eyes a brighter economic future. Domestic enterprise, however, continues to be dominated by a small coterie of wealthy families.

Groomed for succession? Or just for the duties of a concerned First Lady? Imelda Marcos—former beauty queen, avid international traveler, and wife and protégée of the man who holds all reins of power in the Philippines—meets with enthusiasm when she tours the countryside (**above**). Some say she is being readied to succeed her husband. Though denying such ambition, Mrs. Marcos has become a strong force in national politics, having recently been named Governor of Metro Manila—a new jurisdiction encompassing Manila and its neighboring communities.

The "constitutional authoritarianism" of Marcos may be one reason some Filipinos choose to emigrate. A woman (**right**) presses her case for a U.S. visa.

Calling the shots, President Marcos vigorously defends his imposition of martial law on a country that had enjoyed a quarter of a century of rocky, though functioning, democracy. Violators of Manila's curfew, from 1 until 4 a.m., pay for their night out with a morning's hard labor (**bottom**).

In harmony with a tropic dusk, the Philippine Cultural Center on Manila Bay houses two theaters and four pavilions of native art, and adjoins the folk-art theater, in background. Planned and supervised by Imelda Marcos, the complex

Such speculation gained added credence when Marcos recently appointed her Governor of Metro Manila. Relatives of the President and the First Lady sit on corporate boards and hold government positions, and a joke making the rounds goes: "Today everything in politics is relative—if you aren't one, you don't have a chance."

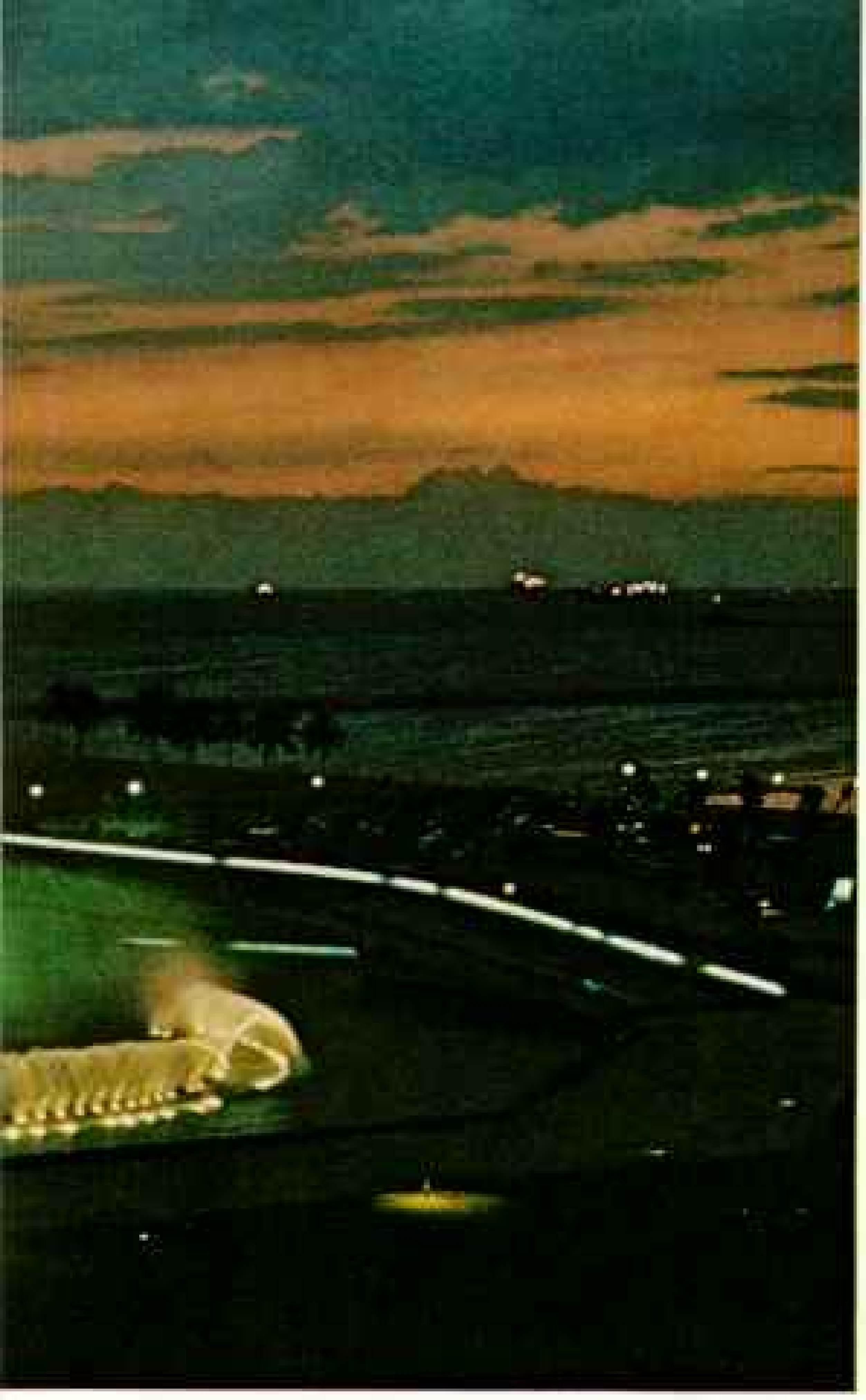
(Most) Headhunters Forgo Old Ways

There are some Filipinos for whom such political issues have little meaning. These are the mountain tribesmen, or, as they are called today, the "ethnic communities." Of some 50 tribes scattered throughout the islands' hinterlands, many have been partially assimilated into the country's modern culture. But other tribes in remote mountains still have little contact with the outside world.

One day I flew in a light plane of the New Tribes Mission into the Sierra Madre of northeastern Luzon to visit the Ilongots—a tribe that traditionally has hunted human heads. Head-hunting among the Ilongots was an accepted method by which a young man could prove his bravery and maturity. The practice has grown rare over the last two decades as Protestant missionaries have probed the jungle seeking converts; yet occasionally one still hears of a head being taken.

We landed at a short dirt airstrip slashed out of the jungle at Cawayan, a village of seven or eight thatched huts. There I met Ray Quito, once a Manila street kid and now a missionary, who told me that there had been a head-hunting attempt against his wife just a year before. "But don't worry," he said. "We are all Christians here now."

Headhunters or not, the Ilongots turned out to be friendly, and life in the village was



brings to Manila's upper and middle classes events ranging from native folk opera to the London Philharmonic Orchestra. A greasepainted performer from Leonard Bernstein's *Mass* (**right**) glows with the success of an all-Filipino production.

peaceful (pages 378-9). The men climbed the steep mountainsides every morning—to an Ilongot the only way to climb a mountain is straight up, to show the mountain you are not afraid—and worked at clearing the jungle or planting sweet potatoes, the staple crop.

Ilongots Follow Treetop Paths

I went up the mountain with two of the young men, Sacda and Gageng. Brown and muscular, clad only in blue loincloths, they swung easily up into a tall tree and began to move from branch to branch with fluid grace, their bolos flashing as they lopped off limbs to let sunlight into their jungle garden.

When they finished, Sacda performed a breathtaking maneuver. Grasping a 30-foot length of limber rattan vine that he had carried into the tree with him, Sacda flung it forward until a hook on the end of the vine caught over a branch of a neighboring tree. He looped the other end of the vine over a stub of a branch so that the vine hung in a U between the trees. Then, with utmost casualness, he gripped the vine between his toes, slid down one leg of the U, and pulled himself hand over hand up the other leg into the next tree. There he let out a high-pitched cry—a cry that said, "I am happy in the trees!"

In the evening the villagers gathered in one of the huts for storytelling. One night Sacda and other young men performed the ceremonial head-hunting dance; to the music of a bamboo guitar and a crude instrument with strings made of human hair, the men swooped and gyrated, their eyes rolled back in their heads, in a grim ballet of combat and death. The next night they held a prayer meeting. Walking back to my own hut in the darkness, I could hear their voices raised high, singing

Reliving Christ's Passion, thousands of worshipers fill the streets of downtown Manila (**above**) during a Holy Week procession of the Black Nazarene—a sacred relic depicting a dark-skinned Christ. Further expression of Philippine religious fervor—a legacy of more than three centuries of Spanish rule—occurs in nearby San Fernando, where a volunteer "Christ" is nailed to a cross in a reenactment of the Crucifixion.

Amid a sea of fishponds, and accessible only by river, this Luzon community is one of 6,000 such water-girt villages that provide the country with its chief source of protein. Following centuries-old practice, ponds are dug below river level and stocked with fingerlings and algae culture; they provide two harvests a year. Bamboo fish traps in the river produce daily catches. Struggling to feed a soaring population, the Philippines vests great hope in fishpond development in unexploited swamplands.

in their own dialect an old hymn: "This world is not my home, I just came passing through."

Sixty miles northwest of Cawayan lies a very different kind of mountain community, the pretty little city of Baguio. Tucked into the steep, pine-covered mountains of north-central Luzon, Baguio is a town of pleasant hotels, elegant summer homes, and rolling golf courses—a principal resort for prosperous Filipinos. I made the town my base for a few days, and one morning took a half-hour drive on a serpentine road to one of the largest gold mines in Southeast Asia, a

Benguet Consolidated operation. There I met George Field, an affable Englishman who was Benguet's superintendent of mines.

"In the future," he said, "the Philippines is where all the big mines will be in Southeast Asia. The country is very rich in copper, quite rich in chromium, and there are big reserves of nickel. Right here we take out some 70,000 ounces of gold and 90,000 ounces of silver a year."

The company, he explained, had been U. S.-owned until 1974. Then foreign firms working in natural resources were required to sell 60 percent of their stock to Filipinos. At the same time, Benguet and other foreign-owned companies were told to start putting more Filipinos on their management staffs.

Heat Is Offset by Lure of Gold

Field took me underground on a fast elevator—into the core of an extinct volcano. "It's one of the hottest mines in the world," the superintendent said. Two minutes later and 2,000 feet down, the elevator stopped, and I could feel the heat as soon as we stepped out into the tunnel. We were met there by one

Dwelling apart in the wilds of Luzon's Sierra Madre, the Ilongots, one of the Philippines' fifty native tribes, have only recently given up head-hunting—a tradition that struck fear in the hearts of generations of nearby lowlanders. Now peace loving, they use their bolos for trimming treetops, which they reach by clambering over vines thrown from tree to tree (**right**). With rubber boots and cotton dresses reflecting a changing life-style, village leader Topdek and his family stand under the wing of a missionary's plane (**above**). Wearing goggles fashioned from flash-light lenses, Tito—son of the village medicine man—shows off a freshly speared fish (**facing page**).

of the foremen, Severino Biagtan. Sixty years old, he was stripped to the waist against the heat, and his muscular physique was that of a young bantamweight fighter. The foreman led off down the tunnel, and Field motioned for me to follow.

I began to feel apprehensive when we turned down a side tunnel, and I heard a roar that sounded like the volcano itself. We went through a heavy door and into a world of steam and noise. Boiling water rushed down the rock walls into a drainage system.

Capping a rocky islet, shiplike Fort Drum guarded the entrance to Manila Bay at the outbreak of World War II. The 200-man reinforced-concrete fort was one of several harbor defenses that included Corregidor —"The Rock." In the end, the fort's big guns proved no match against Japanese artillery and air attacks.

"This is coming from an area where the rock is about 200 degrees Celsius [392° Fahrenheit]," Field yelled.

As we went farther into the tunnel, the air grew so hot I could hardly breathe. Up ahead the little foreman stopped and turned back to grin at me. "Do you like it down here, sir?"

"How do you stand it?" I gasped.

"It is a custom, sir," he shrugged. "It is about 120 degrees Fahrenheit here."

Later we returned to the main tunnel and stepped into 90-degree air that felt refrigerated. "See," said the foreman with a grin, "you are still alive."

Rancor Fades as Tourism Grows

In Baguio—indeed, everywhere I traveled in the country—I kept encountering people who were obviously Asian, but obviously not Filipino. They were Japanese, and today they are landing in numbers larger than the force that came during World War II.

Some are "bone hunters." Armed with maps and guides, they try to find the remains of relatives who died in the Philippine jungles. But most are simply tourists. Enmities have been laid to rest, and the Japanese are welcome visitors even at such battlegrounds as Bataan and Corregidor.

I went to Corregidor myself with an old soldier, Col. Pio Caluya, U.S. Army (Ret.). Clear-eyed and straight-backed at 77, Colonel Caluya spent 15 years as an artillery officer on Corregidor, the fortress island at the mouth of Manila Bay that became known as "The Rock"; then, when war came, he fought in the battle for Bataan.

On our two-hour ferry ride across Manila Bay to Corregidor, the colonel talked of those days. "The Japanese attacked the Philippines seven hours after the attack on Pearl Harbor," he said. Within five weeks United States and Philippine forces were driven back to Bataan and Corregidor.

"On Bataan," he said, "our buildup of supplies and defenses had been neglected because of General MacArthur's strategy of dispersed defense. The Japanese were very disciplined, very committed."

Bataan's defenders surrendered to the Japanese on April 9, 1942. Then began a grim ordeal—the "Bataan Death March"—as American and Filipino prisoners were herded to concentration camps in central Luzon.

"We were under pressure all the time," said the colonel. "There were many who died on the road, but even more died once we reached the camps. There was no medicine, no food. We were losing as many as five hundred men a day. The Japanese had a favorite punishment for minor offenses—they'd make men stand facing the sun for hours. For major offenses, it was the firing squad."

The colonel looked across the ferry cabin at a group of Japanese tourists. "They are still a very disciplined people," he said. "But they have mellowed a little bit."

When we reached Corregidor, the old Filipino soldier and I took a bus tour around the fortifications. Here 11,000 Americans and Filipino troops hung on for four weeks after the fall of Bataan, enduring one of the heaviest bombardments in the annals of warfare before their inevitable surrender. Today the scarred hulks of barracks are overgrown with vines, and the defenders' coastal-defense guns lie rusting in the jungle.

We came to a high promontory, where a huge 12-inch gun still rested on its emplacement. Nearby was a tiny shrine (right), erected by Japanese visitors to their own dead. At its base were small offerings—paper flowers, sticks of incense, a few cigarettes.

The colonel looked out over the bay. "From our place on Bataan," he said, "you could see the bombs like a curtain falling, a line of dark objects falling over Corregidor."

A busload of Japanese tourists arrived. A young, pretty Japanese girl stood in silence in front of the shrine, then bent and left her own offering, a tiny packet of rice, among the paper flowers. The old colonel watched her a moment, and then went back to the bus.

Civil Strife Not Ended With Huks

Colonel Caluya's war has been over for thirty years now, but those three decades have not brought true peace to the Philippines. The papers still bear reports of ambushes and grenadings here and there on Luzon by the New People's Army.

The NPA is a lineal descendant of the old Hukbalahap. The Huks, as its members were known, were nationalists banded together to fight the Japanese. Later, dominated by Communists, they fought an insurgent campaign against the Philippine Government.

They might have won except for the efforts of Ramon Magsaysay. As secretary of defense, and later President, he offered land and aid to peasants who would support the government, knowing that the Huks could not survive without popular support. By 1953 this policy had eliminated the Huks as a serious threat.

By the late 1960's many Huk leaders had been killed or captured. But the rebellion got rolling again in the early '70's with fresh recruits—zealous students from Manila's universities who went into the mountains and formed the New People's Army.

Homage on The Rock: Thousands of Japanese tourists now throng the Philippines. This woman bows before a shrine to her countrymen who died on Corregidor, last bastion of U.S.-Philippine resistance early in the war. The Rock's fall to the Japanese in May 1942 ended Allied control of the islands until their recapture three years later.

BAYANIHAN—*the Pilipino word for "neighborly cooperation"—makes house moving on the island of Mactan a laughing matter.*

Though it numbers only about two thousand members, it is avowedly Maoist and may prove more of a threat to the government than the Huks were. I decided to consult a man who could claim some expertise, the former Huk leader "El Supremo"—Luis Taruc. Taruc had spent 14 years as a guerrilla in the jungles and some 16 years in prison.

I was surprised at the man who came to meet me in my hotel—an elderly, benign-looking gentleman, carrying a briefcase, who seemed rather tired. He was El Supremo.

"The NPA has suffered many military setbacks," Taruc said. "Today they hide and try to avoid combat, and that's a sure indication that they are still weak. Now they are concentrating on infiltration, and they are joining all kinds of organizations. They are spreading propaganda and conducting secret seminars. Their underground is growing."

I asked what might happen. "It depends," Taruc said. "Marcos has unleashed revolutionary expectations, and the tide cannot be turned. The peasant is like the carabao—our water buffalo—kind, obedient, docile, but if you beat it without reason, it will gore you. If peaceful revolution fails, there will be a violent upheaval, like Viet Nam—maybe worse, because we Filipinos are more emotional."

Display of Philippine machismo, the pendant worn by this young man of Cebu also reflects the country's war against criminal violence. Before Marcos outlawed private weapons, the nation's murder rate was six times as high as the United States'.

Reforms Bring a Measure of Peace

Today the political changes that have taken place in Manila are having an impact throughout the archipelago. I found something of that impact in the islands clustered around the Visayan Sea. The names of some of the islands resonate with the past: Mactan, where Ferdinand Magellan was killed by natives in 1521 on his round-the-world voyage; Leyte, near which Japanese and U.S. naval forces fought a fierce battle in 1944.

The other Visayan Islands are more obscure. One of these is Negros, principally known for its sugarcane. Outside the provincial capital of Bacolod, the hot, sunbaked cane fields stretch to the horizon. But rice is grown here too, and like most rice land in the Philippines, that on Negros is affected by the country's land-reform program—the keystone of Marcos's New Society.

In the small barrio, or village, of Busay Hacienda I met Servando Lavilles, a man who had been a tenant farmer all his life. But now his landlord had been required to sell him land, and Lavilles was the owner of three hectares—about seven acres—which he would pay for over a period of 15 years.

As he pointed out his fields of feathery, three-week-old rice, Lavilles seemed filled with pride. Government specialists had come into the barrio to teach farming techniques, he said, and he had already increased the yield of his land by more than 50 percent. He and other farmers had just bought a small tractor to increase their efficiency.

In the past, he explained, the tenant farmers had lived in fear of the *bugoy,* goons hired by the big landlords to keep the farmers in line. But all that had changed. "It's peaceful here now," he said.

Lavilles's story was encouraging, but I knew that elsewhere land reform was not progressing so smoothly. Many tenant farmers had not yet received the land due them. And dissatisfaction with the program was bubbling to the surface. Landlords were angry at being forced to sell their land for what they considered less than fair value. On the other hand, the most ardent advocates of land reform were complaining that the program was moving too slowly.

Luis Taruc, the old guerrilla, had warned me that trouble was sure to come "if the government dillydallies on land reform." Whether it *will* come—and from which direction—only time will tell.

Tuba Provides a Heady Time

Two hours by ferry from Negros lies Iloilo, the main city on the island of Panay. In contrast to sunbaked Negros, Panay is shaded and lovely, its roads lined with flowering trees and coconut palms. I stopped to watch people working in a coconut grove. Squatting, they deftly gouged the meat from the shells with sharp, chisel-like knives. "They dry the coconut meat in the sun," said a friend from the Department of Tourism, Helen Grace de Leon. "The dried meat, the copra, will be exported and made into coconut oil, margarine base, and other products."

An old man came walking through the grove, bearing a bundle of bamboo tubes on his back. "That's the *mananguite,*" Helen said. "The tuba gatherer."

"Tuba?"

"Not tuba, that's a musical instrument—tu-BA. Look up in the trees." When I looked up at the palms, I saw bamboo tubes hanging beneath the crowns, catching sap dripping from small slashes at the base of the fronds. After fermenting, Helen said, the sap became tuba, a palm wine very popular in the barrios. "Want to try some?" We bought a glassful from a woman in the village—it tasted something like a thick, sweet peach nectar, but with considerably more kick.

Later we returned to Iloilo city to visit a family-planning center. The Philippines has one of the highest birthrates in Asia, and the government is campaigning intensively to spread the concept of family planning throughout the country. At the hospital I met Leila Catedral, a maternal, bespectacled woman who works for the Family Planning Organization of the Philippines.

"Traditionally," she said, "children have been the insurance for old age. People say, 'When I grow old, I'll have someone to take care of me.' That's what we're trying to change. We want them to see each child as a person to be developed to full potential."

Mrs. Catedral then talked with a young engaged couple. Under a new law no one can marry without a counseling session with someone like Mrs. Catedral. The couple listened attentively as she discussed various approaches to birth control.

All over the Philippines, the program's initial success has been dramatic. More than two million women in their childbearing years have accepted birth-control methods. Now, though, progress is leveling off as the family-planning workers move out from the cities into tradition-minded rural areas.

Despite the government's efforts, the country faces a population explosion. Three of every four Filipinos are under 25, and half are under 16. Even if family planning wins wide acceptance, the population could reach some 75 million by the end of the century—a crush that will put an enormous burden on the nation's resources.

Exploitation or Conservation?

For many resources, Filipinos will depend on the great southern island of Mindanao, the part of the archipelago richest in minerals and timber. There the government faces the problem of balancing the need for immediate income with the need for conservation.

So far, the record has been poor. Thousands of square miles of superb forest have been cut down with no regard for the future, and what remains is disappearing at a fearsome rate. Some of the logging companies, but by no means all, have started aggressive reforestation programs. I went to visit one of the better ones, the Nasipit Lumber Company near Nasipit in northern Mindanao.

Early one morning I left the company's main camp with logging superintendent Arsenio Pineda and drove up a mountain into a cloud bank. "We get about 130 inches of rain a year," he said. "We can grow a thousand cubic feet of wood per hectare in 15 years. We have more than 300 species of trees, and seven of them are our most valuable varieties of Philippine mahogany." Driving through large tracts of reforested land, Arsenio pointed out the healthy young trees coming up. Then we headed farther into the mountains to see logging operations.

Finally we reached an area of virgin timber and climbed down a steep slope until we came on a young hard-hatted logger working at the buttressed base of a big tree. We stood well out of the way with the bull bucker, or foreman, while the logger drove his chain saw into the beef-red trunk. The saw bit through quickly; a hundred feet above, the tree's crown began to sway, and I heard the wood fibers cracking and popping as the tree started to fall. *"Aryadong kahoy,"* cried the bull bucker in a high, drawn-out singsong, and the tree thundered down.

Superstitious? Maybe Yes, Maybe No

I asked the bull bucker about the call he had given, and he explained that it was to warn the men of the falling tree, and also to warn the forest spirits.

The forest spirits? "Yes, according to our parents, spirits live in the forest. They have the power to make a man die or suffer. So we call out, and if the spirits do not get out of the way, it's no one's fault."

"Do you really believe that?" I asked.

The bull bucker grinned. "Myself, I do not say that I believe, and I also do not say that I do not believe. I stay neutral."

Far to the south of the forest, at the southwestern tip of Mindanao, lies a city whose name for me has always been pure magic—Zamboanga. Those fluid syllables have a certain roll on the tongue—they suggest a place exotic and sensuous, and they also seem to suggest something vaguely sinister in the hot, moist air.

When I reached the city, I found it lived up to all those expectations. Brightly painted tricycles—taxi motorcycles with sidecars—buzzed around the flower-bordered streets like bees. In the harbor lay the great outrigger fishing boats called *basnigs*—high-prowed, high-sterned, painted blue and gold and red and violet. Down at the wharf, barter boats were arriving from the ports of Borneo with batiks from Indonesia, beaded purses from Singapore, and fine soaps from England. Along the waterfront the Bajaus, itinerant sea gypsies, bobbed in their dugouts, hawking shells and coral in raucous voices.* And that sinister aura was there too, for since 1973 Zamboanga has been in the middle of a bloody rebellion.

While most Filipinos are Christians, about two million of the people of Mindanao and the islands of the Sulu Sea are Muslims. These are the famous Moros, a proud and determined people whose long history is a chronicle of piracy, smuggling, and ferocious warfare. For years they have been restive over the encroachment into their territory of land-hungry immigrants from Luzon and the Visayas.

Their anger flared again in 1973 when the government attempted to confiscate their guns—to which Moro men are extremely attached. Rebels vowed that they would establish Mindanao and the Sulu islands as an independent Muslim nation. Since that time, from mountain redoubts, these Moros have waged a fierce guerrilla campaign against government troops.

Muslims Respond to Fairer Treatment

At the time of my visit the government was conciliatory, trying to convince the guerrillas to "return to the folds of the law" by offering them amnesty plus promises of jobs, scholarships, and small-business loans. Thousands had responded to the government program, yet sporadic attacks and ambushes still occurred. Travel by foreigners was restricted, and it was with difficulty that I wangled permission to visit the island of Basilan, where the government was holding a peace rally.

Two and a half hours from Zamboanga by ferry, Basilan is a big, rugged island, rich in coconut and timber. In the city of Isabela I rode by tricycle to the outdoor auditorium where the rally was taking place.

Delegations of Muslims had come from

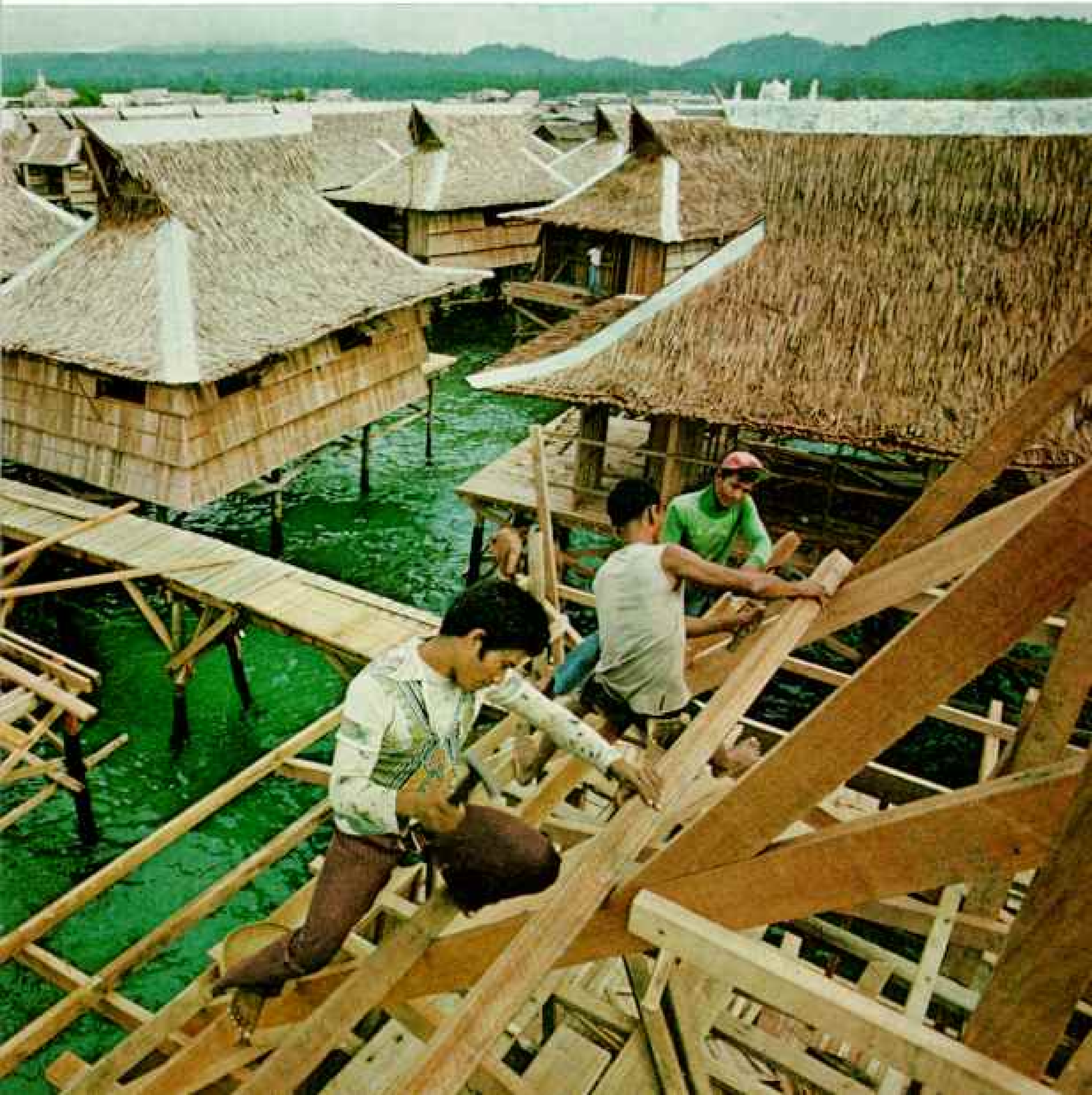
*See "Sea Gypsies of the Philippines," by Anne de Henning Singh, NATIONAL GEOGRAPHIC, May 1976.

Warm rains hush the midday bustle of a marketplace in Cebu, the oldest and third largest city in the Philippines. It was here, in the heart of the archipelago, that the Spanish gained their first Christian converts and in 1565 established sovereignty.

An ancient feud still escapes resolution in western Mindanao and the Sulu Archipelago, where descendants of fierce, kris-bearing Moros battle for self-rule. With a tradition in the Philippines that predates Christianity's, these Muslims have successfully resisted both Spanish and Japanese domination. Today, comprising only 5 percent of the population, they face a more relentless foe: land-hungry frontiersmen from the other islands.

An ongoing rebellion by secessionist-minded Moros was aggravated in 1973 by government attempts to enforce a ban on guns. Carpenters on the island of Jolo (**below**) rebuild a village razed during a 1974 rebel effort to occupy the island. Rear Adm. Romulo Espaldon (**left**), commander of government forces in the southern Philippines, returns from a tour of strife-torn areas, where the government now pursues a policy of conciliation. So far, it reports, 8,000 rebels have accepted amnesty offers, and only 9,000 are still fighting.

Gun-toting converts to peaceful cooperation (**lower left**) illustrate the government's recent willingness to allow Moro men their symbols of manhood.



each of the island's districts, many of the men wearing white turbans, which signified that they had visited Mecca. A huge painted dove hung behind the rostrum, and the head of the government delegation, Rear Adm. Romulo Espaldon, wore a bright floral garland around his neck.

Admiral Espaldon took the floor to hear grievances. An old man, a refugee from the fighting, said he wished to return to his home. Espaldon pointed to the local military commander and said, "Colonel, you will arrange for him to go to his original abode." Another man complained that federal funds due his community had not yet arrived, and Espaldon called the local commissioner in charge to the platform. When the man made excuses about the funds not yet arriving through channels, Espaldon strode to the microphone and thundered, "*You*, commissioner, will go to Manila yourself and *get* the funds!" The audience applauded.

It was an impressive display of on-the-spot problem solving. Later, riding back to Zamboanga on a patrol boat, I asked the admiral about it. "The rebels who are still in the mountains are watching to see what we do," he said. "The President has appointed Muslim judges, mayors, governors. The government is building irrigation systems, roads, schools. In this area within a year's time there will be no major fighting."

If Minds Are Won, Do Hearts Follow?

Moros I talked with seemed less sanguine. In Zamboanga I met a rebel who had accepted government amnesty. He showed me an ugly scar on his chest, the souvenir of one of his numerous battles with government troops. "The fighting will go on," he said. "The Muslims want Mindanao back again."

After I left Mindanao, geologic forces exercised their own influence on the future of the rebellion. Last August a cataclysmic earthquake struck the Moro heartland north and east of Zamboanga. The quake shattered homes, hotels, and office buildings in the city of Cotabato. Twenty-foot waves raced across the Moro Gulf, wiping out entire coastal villages. The quake left 8,000 dead and 175,000 homeless. Nearly all of the victims were Muslims. Surveying the damage, President Marcos speculated that the disaster might end the rebellion.

Perhaps. Certainly the quake would have had little effect on guerrillas in mountain strongholds. What *will* count is how effectively the government helps the Moros to rebuild their communities and their lives.

What Kind of Future Awaits?

Today the Philippines is going through a difficult period of readjustment. Sadly, true democracy seems further away than ever. Marcos is firmly in control, and some of his programs are genuinely progressive, but he has achieved order dearly, at the cost of personal freedom.

Aware of the new realities of power in the Pacific, the Philippine Government has established diplomatic ties with mainland China, and has demanded that the United States meet stiff new terms to keep Clark Air Base and Subic Bay Naval Base, its big military installations on Luzon.

In the past Filipinos have looked on the U. S. as something of a big brother, and Americans there have enjoyed privileges amounting almost to honorary citizenship. But nationalism has been steadily growing, and it is reflected in some of Manila's newspaper columns, which snipe at the U. S. incessantly.

Yet what anti-American feeling I encountered seemed only a veneer; everywhere I found the old warmth still surfacing in small ways. As I traveled around the country, young children in small villages sometimes grinned at the sight of my Caucasian face, thrust up their fingers in a V and shouted, "Victory, Joe!" It was their recognition of our alliance in a war they were far too young to remember.

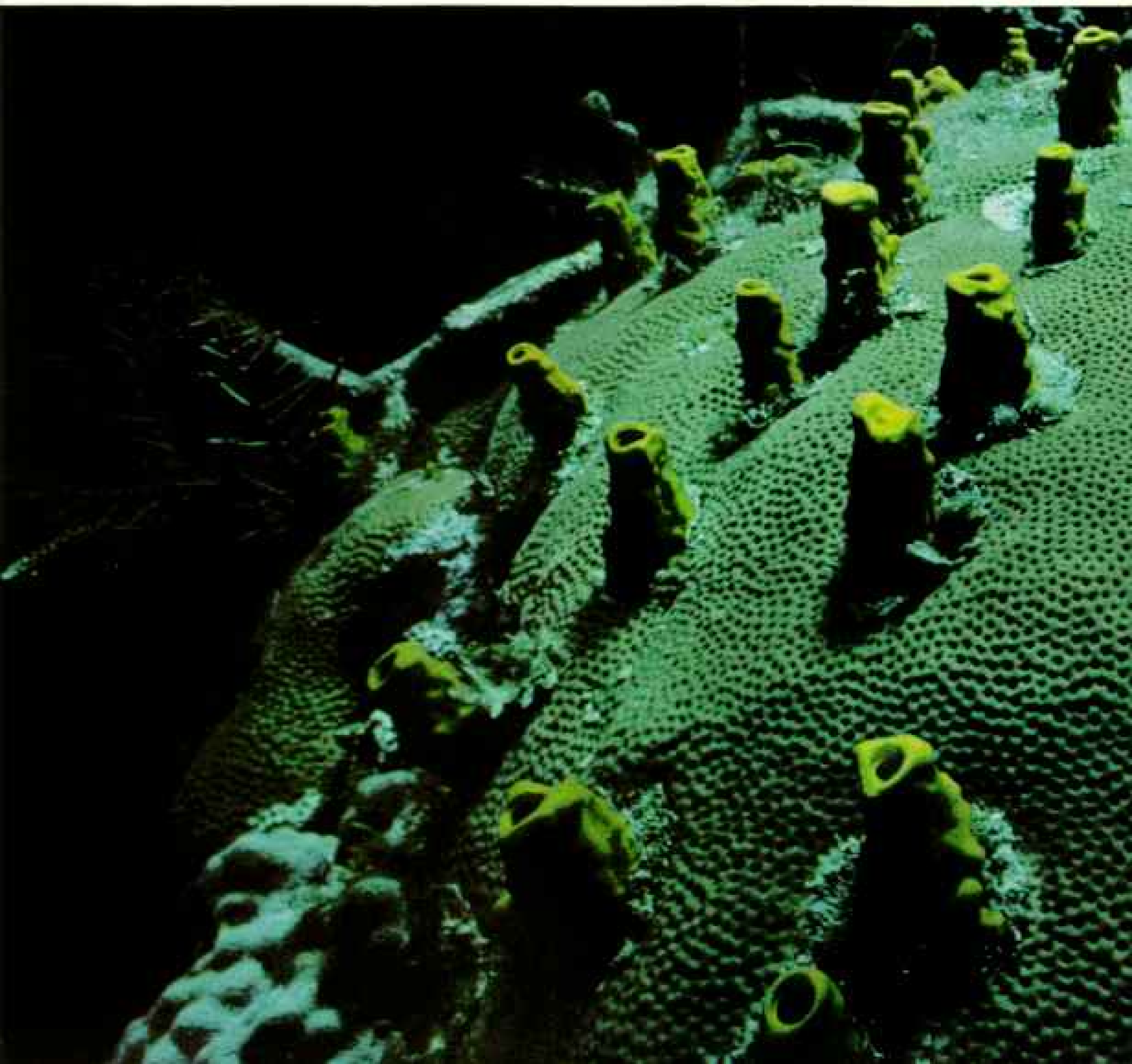
Today the Filipinos' struggle is more subtle, the enemy harder to identify, and Americans can do little to help. One can simply wish them good luck. And—Victory, Joe! □

Man of the "Wild South," a hunter on Mindanao returns with his bait after failing to ensnare other fowl for food and breeding. Viewed as the Philippine equivalent of America's Old West, Mindanao offers resources, land, and hope to the overpopulated, overexploited north.

Consider the sponge,

an animal that cannot move around, possesses neither heart, lungs, nor brain, exhibits no complex behavior patterns, has no nervous system and no apparent means of defense, yet has survived for hundreds of millions of years essentially unchanged.

Conglomerates of simple cells, each kind with a specialized task to do, sponges draw in water through pores in their skin. Inside the sponges, whiplike flagella propel the nutrient-laden water through labyrinths of canals and chambers. The sponges then expel the water from vents, or oscula—



the holes at the tips of little chimney-pot sponges (**below**) decorating a coral head near Roatán Island off the Caribbean coast of Honduras.

Sponges inhabit all the world's oceans and many freshwater streams, ponds, and lakes. Though they live anchored to one spot, the animals prove themselves tough competitors in the arena of survival.

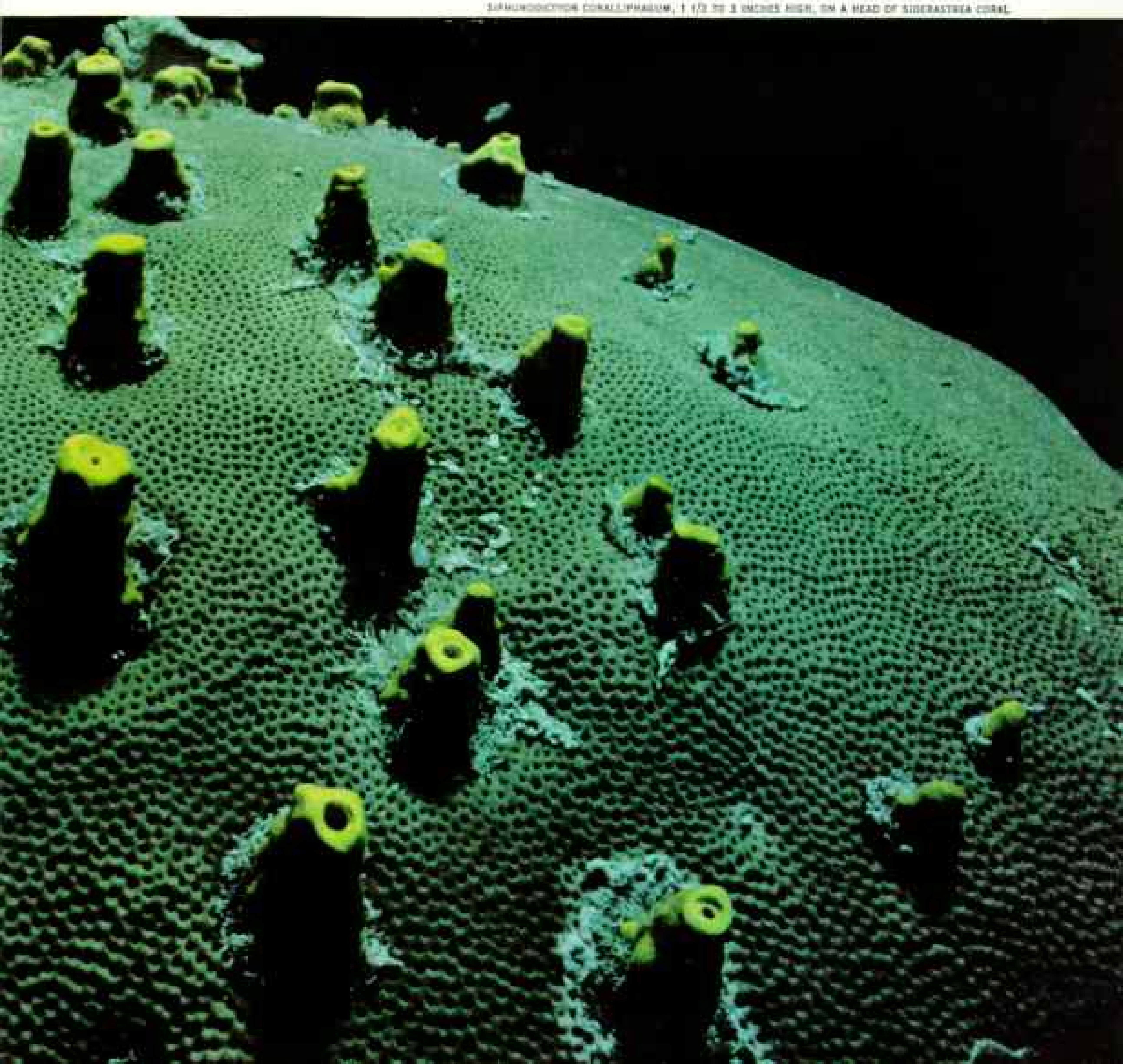
Many marine species, especially those from tropical waters, are virtually immune to bacterial infection and attack from predators. In tests at the University of Southern California, reef-dwelling fish avoided them and died when force-fed bits of sponge.

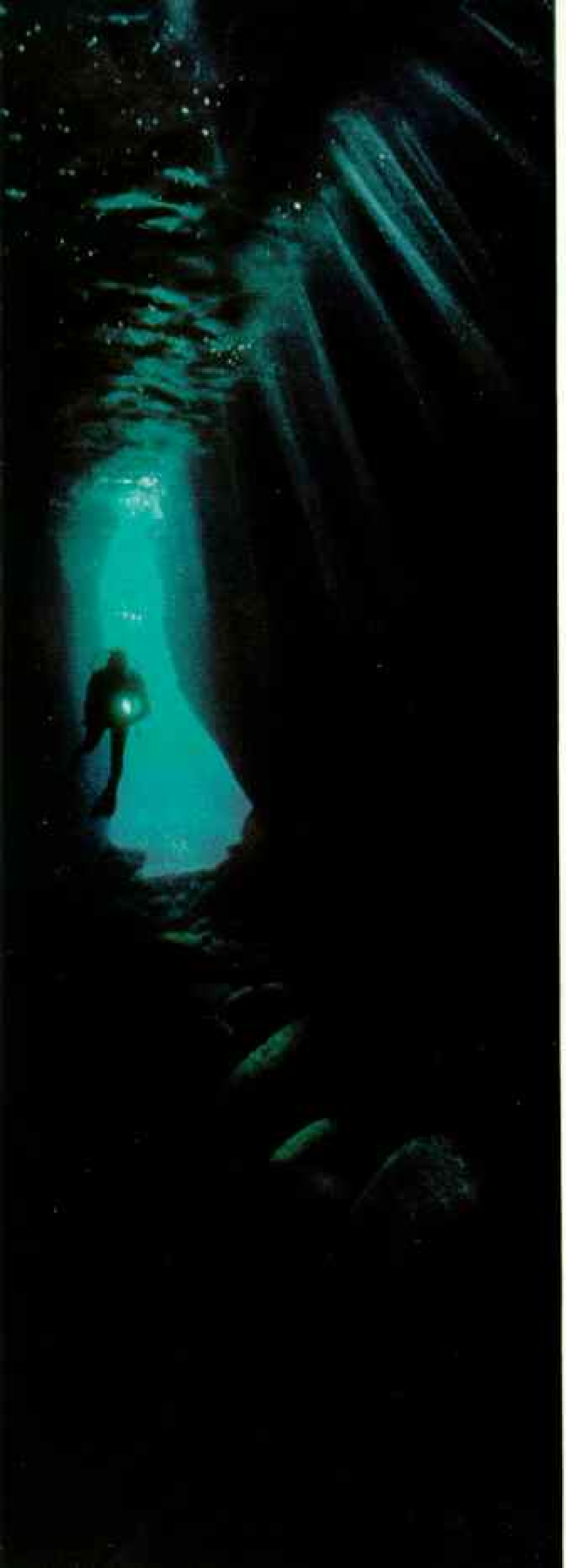
A Yale University scientist was surprised to discover that a dead Caribbean sponge immersed in fresh water resisted bacterial decay for more than five years.

The study of these antibiotic mechanisms has now proven valuable in fighting human illnesses.

PHOTOGRAPHS BY DAVID DOUBILET

SIPHONODICTYON CORALLIPHAGUM, 1 1/2 TO 3 INCHES HIGH, ON A HEAD OF SIDERASTREA CORAL





BEAUTY AND THE BLOB. Elegant in color and design, *Callyspongia plicifera* (**right**) from the Bay Islands of Honduras contrasts with pale, pudgy *Geodia* (**below**), found clinging to a wall of a cave on Virgin Gorda in the British Virgin Islands (**left**).

The 5,000 known species of sponges span an incredible range of sizes and colors: small as beans or giants six feet or more in height; subtle

TWICE LIFE-SIZE (RIGHT); 8 INCHES WIDE (ABOVE)

pastels or blazing reds, yellows, and blues.

They all cling tenaciously to life. In the sea a broken piece of sponge will attach itself to coral and continue its existence. Even sponge cells squeezed through a fine silk cloth will regroup to function again.

4 TIMES LIFE-SIZE, HONDURAS (LEFT); VERONGULA WITH CRAB, DROMIA ERYTHROPUS (ABOVE), BRITISH VIRGIN ISLANDS, APPROXIMATELY 1.5 TIMES LIFE-SIZE

PURVEYOR OF CAMOUFLAGE, hotelkeeper, exterior decorator, the sponge is a good neighbor to fellow creatures. Carrying a *Verongula* sponge (**above**), a crab conceals itself from predators. Rear legs hold the sponge on its back.

A red encrusting sponge (**left**) covers a limestone tube occupied by an arrow blenny. A former resident, perhaps a marine worm, built the tube.

In the spiny embrace of a wandering brittle star, *Cliona delitrix* (**facing page**) offers permanent residence and even room service to scores of beige anemones. These anemones, zoanthids, probably benefit from the nutrients in the water swirling into the sponge's red pores. Inside the sponge, freeloading crustaceans forage for table scraps.

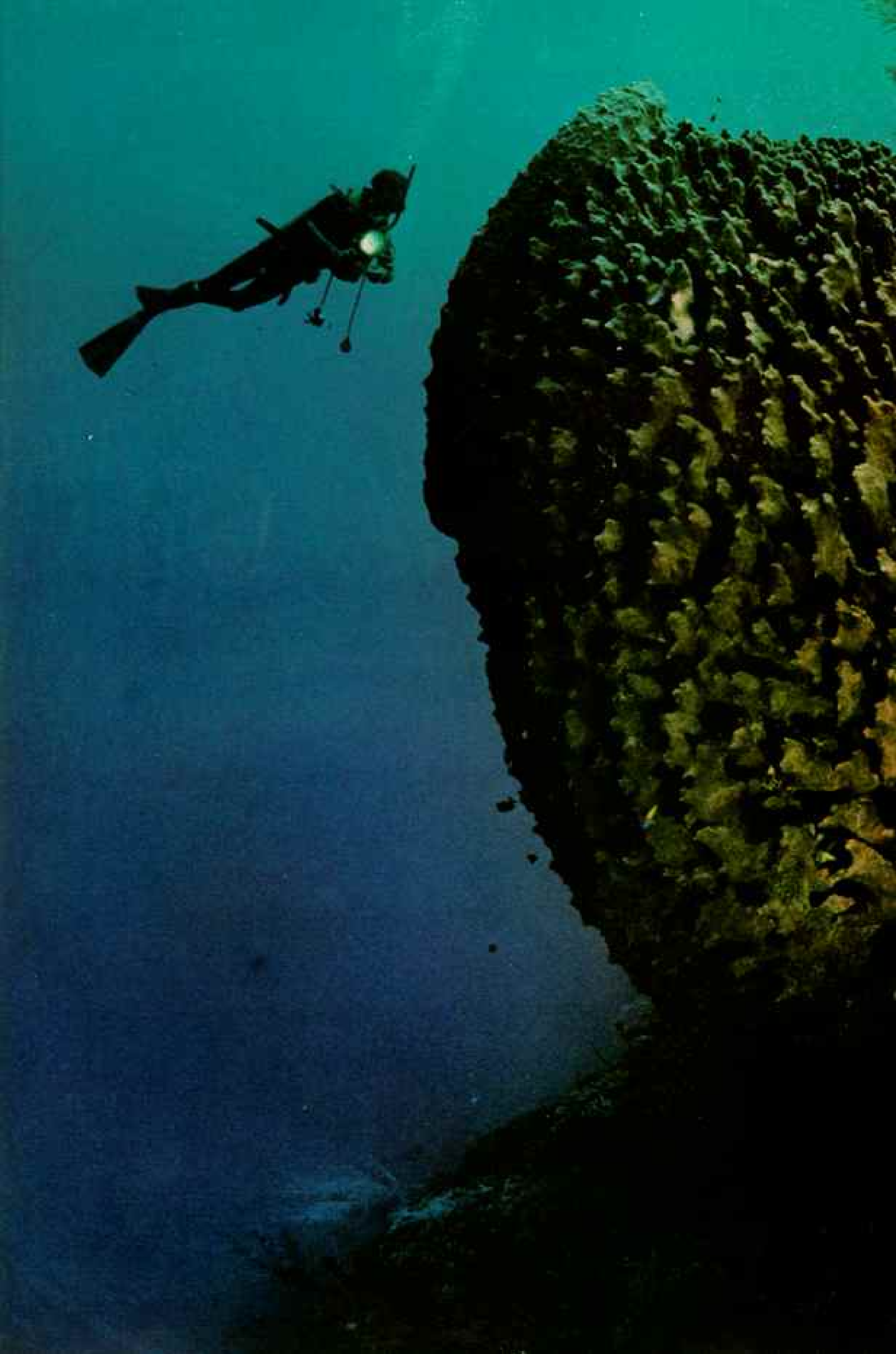
DETERMINED MINER with a chemical drill, *Cliona lampa* bores into rock, coral, or shell by releasing a substance that dissolves limestone. On the surface the sponge appears to be merely a veneer of red tissue (**left**); a resident amphipod peers from one of its vents.

But underneath, *lampa* patiently tunnels away. Here (**above**) advance squads of excavating cells, seen in the shape of a sea horse and as little brown dots, break through to the inside of a barnacle's shell. The sponge may destroy its host, but thereby recycles calcium to the sea.

Lampa also has an unusual means of renewing itself—with tiny pods of nutrients and cells called gemmules. If exposed to sun and air, the sponge itself will die. But when awash again, the gemmules can open and form a new sponge.

Within a *lampa*-encrusted mollusk shell, split by a chisel, the egglike gemmules (**right**) surround one of the sponge's many canals.

18 TIMES LIFE-SIZE (FACING PAGE); 27 X (TOP); 8 X (ABOVE). ALL BY NATIONAL GEOGRAPHIC PHOTOGRAPHER ROBERT F. SISSON AT THE ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE, UNIVERSITY OF MIAMI



GIANT *XESTOSPONGIA*, a barrel sponge six feet tall, clings to the side of a reef off Roatán Island (**left**). In addition to their extraordinary powers of regeneration, sponges reproduce themselves sexually. Another barrel sponge releases a cloud of sperm (**below**), relying on the current to carry it to other sponges of the same species.

Some sponges exhibit both male and female characteristics at the same time; others have been observed to change their sex from month to month; still others maintain constant sexual identities.

4 FEET TALL (ABOVE), GRAND CAYMAN ISLAND; PAUL HUMANN

CONDUCTORS with multiple batons, cleaner shrimp on the rim of a *Verongula gigantea* wave antennae to attract fish. Groom-and-clean specialists, the shrimp scavenge tiny food particles from the fish and trim away their diseased or injured tissue. A cleaner shrimp once even snipped a blister from the finger of a scientist diver.

Another species of shrimp actually lives inside a deep-sea sponge. Entering the sponge as a larva, the shrimp soon grows too large to escape and spends the rest of its life inside, dining on the sponge's flesh.

Happily the sponge manages to regenerate tissue faster than its boarder consumes it.

Nearly transparent, a triplefin fish blends with the shiny mucus of *Mycale* (**lower right**). The mucus is thought to help the sponge repel pore-clogging sediment. *Callyspongia fallax* (**below**), one of the Caribbean's most colorful sponges, branches out from a bed of coral.

SHRIMP, PERICLIMENES PEDERSONI, TWICE LIFE-SIZE, ANDROS ISLAND, BAHAMAS (ABOVE); MYCALE, 1 1/2 TIMES LIFE-SIZE, HONDURAS (BELOW); APPROXIMATELY ONE-HALF LIFE-SIZE, BRITISH VIRGIN ISLANDS (LEFT).

COURTESY [illegible] FAMILY

USED BY ANCIENT Greeks and Romans as mops, paintbrushes, and padding for armor, sponges find industrial use today as polishers.

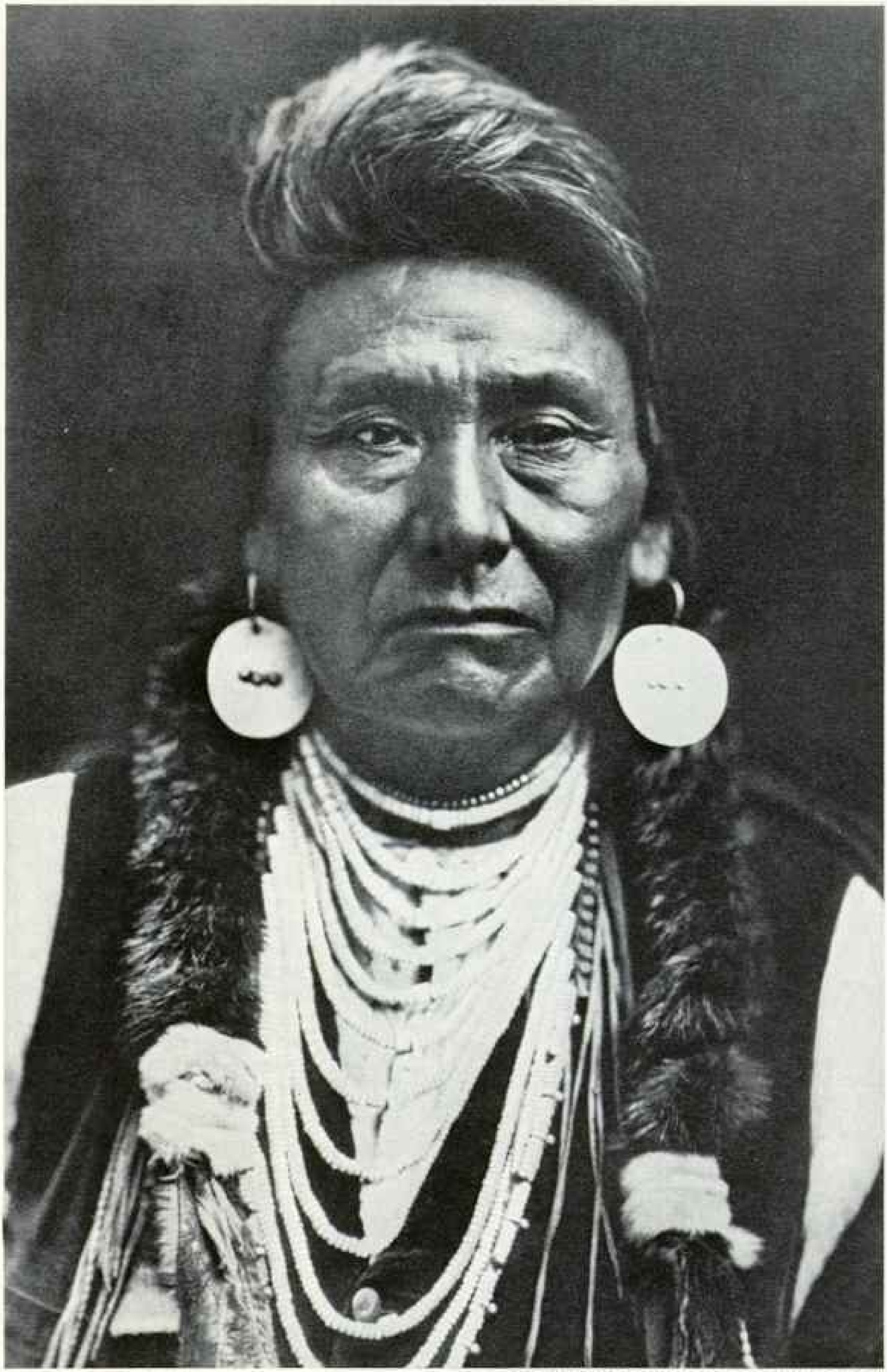
Bonanza harvests littered the Sponge Exchange (**above**) at Tarpon Springs, Florida, in the 1920's, but red tides, killer fungi, foreign competition, and the synthetic sponge combined to squeeze the life out of the industry.

Only a handful of divers still roam the seafloor out of Tarpon Springs seeking sponges (**facing page**). A worker (**below**) sorts them in the warehouse of one of the two chief remaining buyers.

UNDERSEA WRECKS create new worlds for marine life to colonize. The skeleton of the *Rhone*, a steamer that sank in a hurricane off Salt Island in the British Virgin Islands in 1867, is home to dozens of sponges, which share the housing development with corals, algae, and other organisms. The most prominent tenant is *Verongia fistularis*, the cluster of tube sponges at right.

Humble animals with a formidable biochemistry, sponges have made significant contributions to medicine. Numerous substances with antibiotic properties have been discovered, and research on the Caribbean's *Tethya crypta* led to the synthesis of a compound that doctors now use to combat leukemia. □

TEXT BY
MICHAEL E. LONG



CHIEF JOSEPH IN 1903, BY EDWARD S. CURTIS, NATIONAL GEOGRAPHIC COLLECTION

All men were made by the same Great Spirit Chief.
They are all brothers. The earth is the mother of all people,
and all people should have equal rights upon it.
You might as well expect the rivers to run backward as that
any man who was born a free man should be contented
penned up and denied liberty to go where he pleases . . .

CHIEF JOSEPH

ARTICLE AND PHOTOGRAPHS BY
WILLIAM ALBERT ALLARD

LIKE the whispering shift of autumn's first fallen leaves, their lodges once moved freely across the earth. In the bosom of a virgin land they drank from clear waters and lived in green valleys as tenants of God.

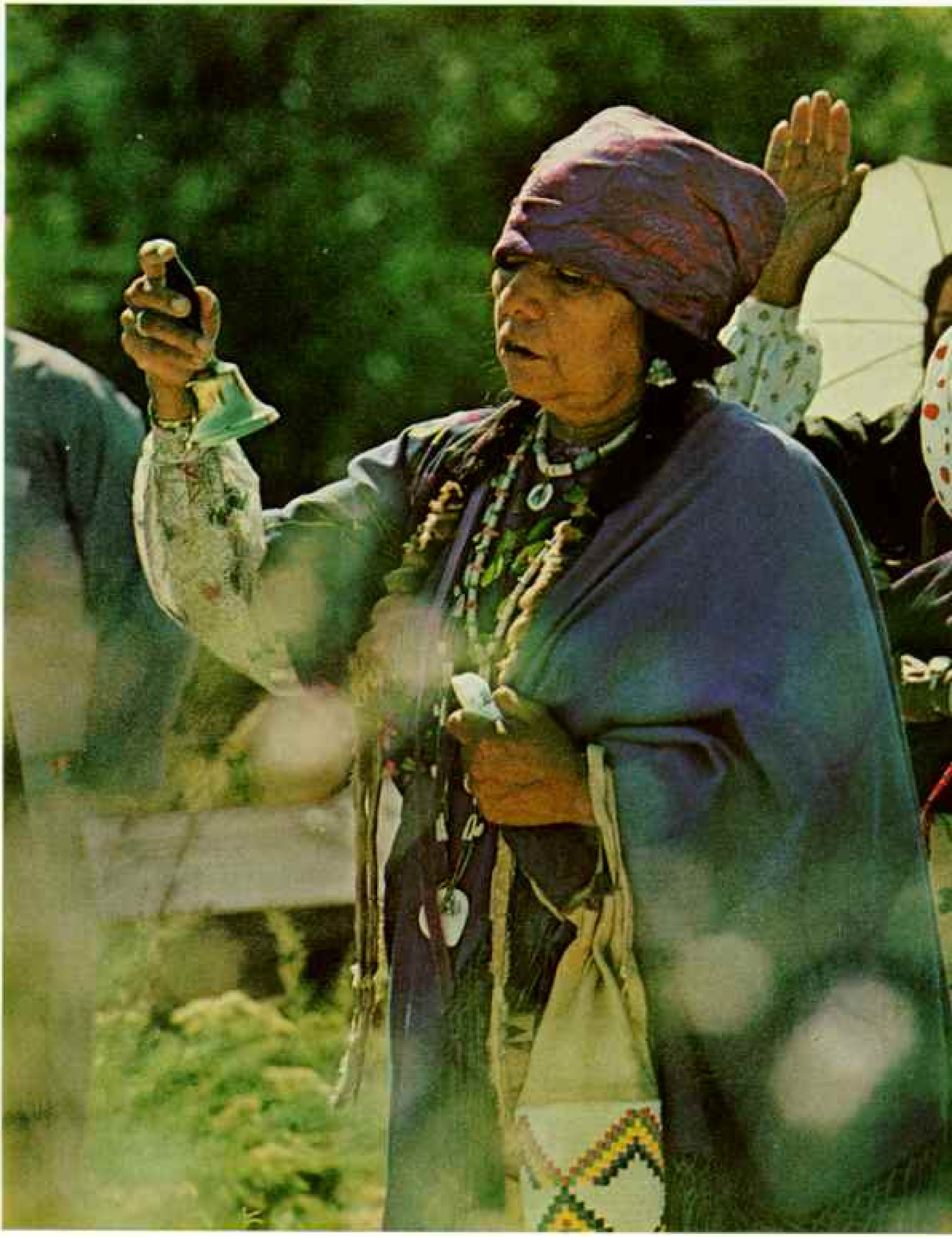
They were the Nez Perces.

According to legend they were created by the mythical character Coyote, who slew a huge monster, scattering its blood across what is now north-central Idaho, northeastern Oregon, and southeastern Washington. From those drops of blood came the Nee Me Poo—the Real People. Because a few wore decorative shells in their nostrils, French-speaking trappers renamed them the Nez Percés—Pierced Noses. Over the years the French pronunciation was lost and the name came to be pronounced as it is today: nezz purse.

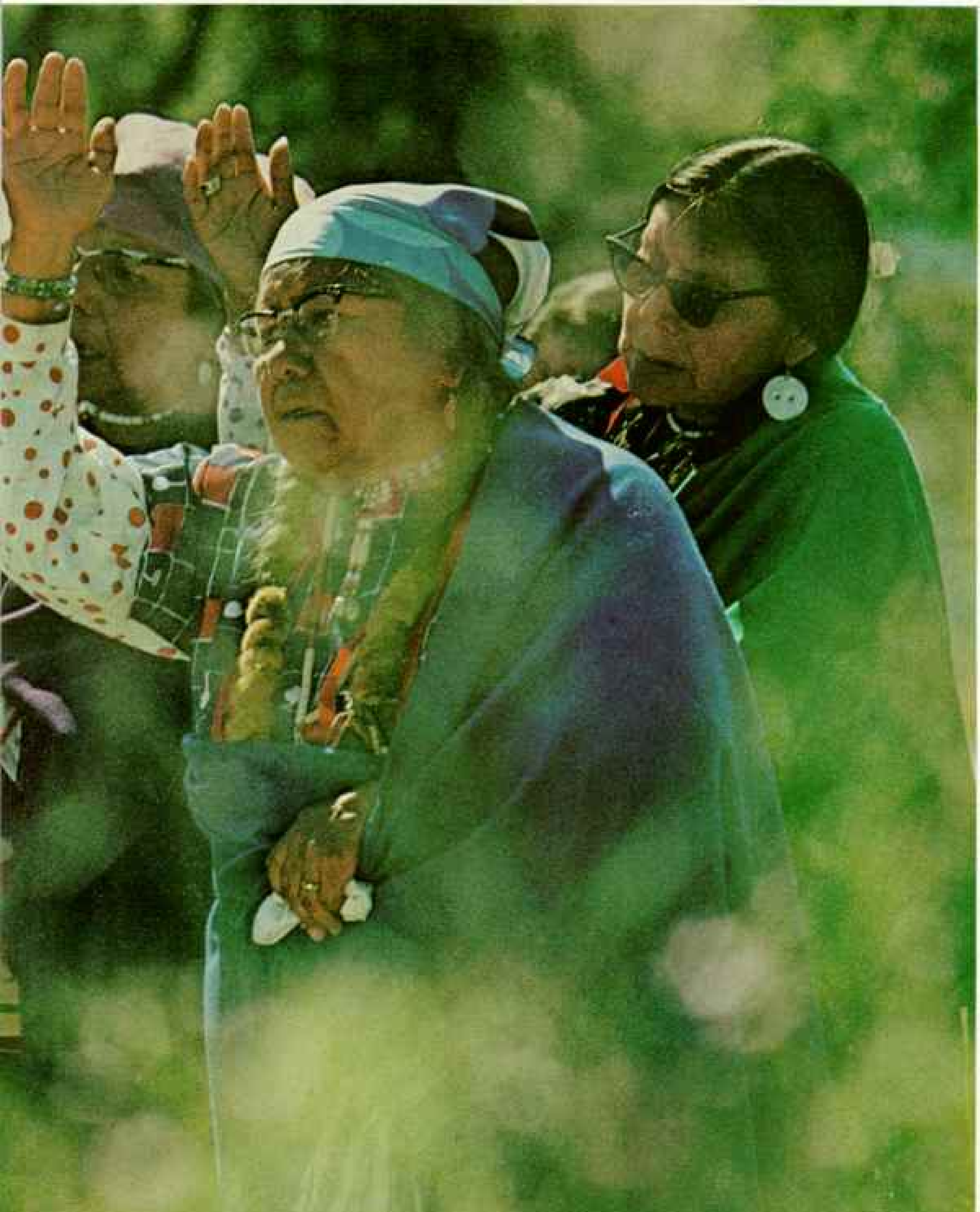
Before the continent was called America, before white men came looking for land, Nez Perce children learned many things through the imagery of legends. From the adventures of Coyote, Fox, and Grizzly Bear they learned the virtues of bravery and honor, and the tragedy of greed. Around the warmth of winter fires they came to understand the mysteries of plants and animals and the sacredness of Mother Earth. And in one of the most ancient legends they learned that Coyote had once predicted the coming of a "new age"—the time of "human beings." With that age, he had said, would come a struggle to overcome sorrow.

Today many of those legends have been forgotten, buried with the bones of the old people who knew them as well as they knew the freedom of eagles. And locked in the deep silence of their graves are the stories of those who struggled to overcome the terrible sorrow of freedom lost.

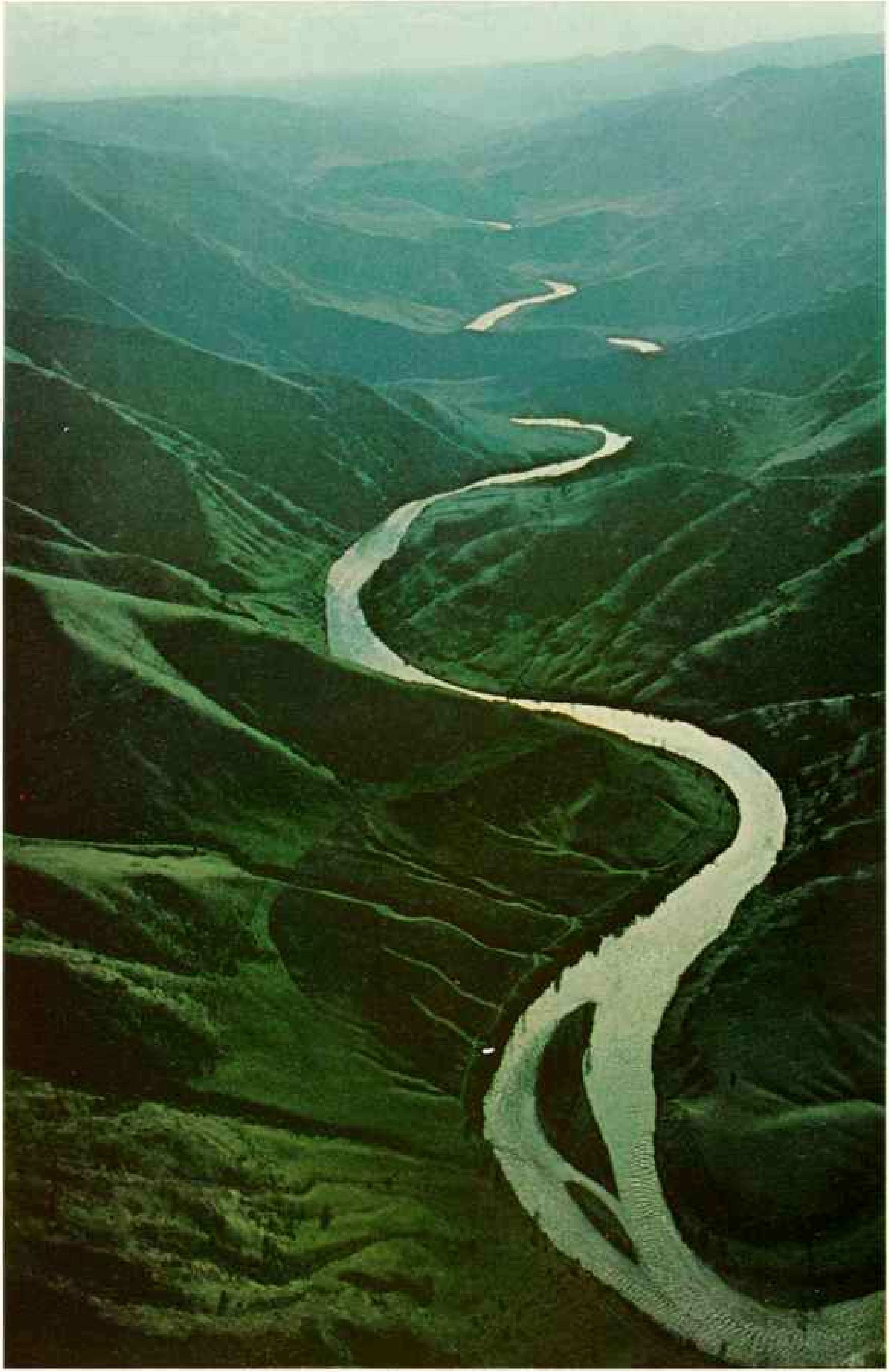
In a weed-choked cemetery in Nespelem, Washington, on the Colville Indian Reservation, stands a monument to past bravery and old sorrows. There, on a gray dirt hillside, a marble column rises in modest elegance amid other graves marked with crosses of weathered wood or clusters of rocks. Carved into the column is the face of a handsome man and the words: "He led his people in the Nez Perce War of 1877. Age about 60 years. Died September 21, 1904." His name: Hinmahtooyahlatkekht—Thunder Rolling in the Mountains. He had another name as well, more deeply etched in history than in stone. It was Joseph. *(Continued on page 413)*



Chanting the promise of eternal sunshine in time-honored burial rites, Nez Perce women say farewell to a friend on Washington State's Colville Indian Reservation. Nearby lies the grave of their most famous leader, Chief Joseph, who died here in exile 27 years after the Nez Perce War of 1877. White settlers began encroaching on tribal lands in the



1860's. After Joseph became chief in 1871, he tried to preserve his band's homeland not with guns but with eloquence. Finally, Joseph, with leaders of four other bands, agreed in 1877 to move to a reservation. But the murder of several whites by vengeful Nez Perce warriors turned the exiles into fugitives and propelled Joseph into a war he never wanted.



Say to us if you can say it, that you were sent by the Creative Power to talk to us. Perhaps you think the Creator sent you here to dispose of us as you see fit. If I thought you were sent by the Creator I might be induced to think you had a right to dispose of me. Do not misunderstand me, but understand me fully with reference to my affection for the land. I never said the land was mine to do with it as I chose. The one who has the right to dispose of it is the one who has created it. I claim a right to live on my land, and accord you the privilege to live on yours. —CHIEF JOSEPH

The silver Snake River cuts through rugged hills in western Idaho, heart of Nez Perce country.

FOR MORE THAN HALF A CENTURY, beginning in 1805 when members of the Lewis and Clark Expedition became the first whites to meet them, the Nez Perces maintained peace with the white men who settled in ever-increasing numbers in their country. But in 1877 Joseph, the dignified and eloquent leader of the Nez Perces living in Oregon's Wallowa Valley, was forced into a hopeless and tragic confrontation. Ordered onto a reservation in Idaho by a Government inspired by the concept of Manifest Destiny, about 750 Indians from Oregon and Idaho (two-thirds of them women, children, and old men) followed Joseph and three other Nez Perce leaders on one of the most heroic journeys in American history.

I would follow their trail, to seek out the legend and the truth of the man called Joseph and to see some of the country he and his people lived in and traveled through during their first and only war with the whites.

The path of their flight for freedom resembles a piece of loose thread dropped upon a map of what was then America's last frontier (following pages). They fought desperate battles along the way, winning or at least holding their own in all but the pitiful finale in the snow-blown, windswept coulees of northern Montana. In the words of Gen. William Tecumseh Sherman, then commanding general of the U. S. Army, theirs was "one of the most extraordinary Indian wars of which there is any record."

At the start, Gen. Oliver Otis Howard, veteran of Antietam, Fredericksburg, Chancellorsville, and Gettysburg, estimated the chances of the Nez Perces with a brief comment: "Think we will make short work of it." Short work? Almost four months would pass and 1,700 bloody miles be ridden before he would see an end to the smoke of their rifles and the dust of their horses.

Always remember that your father never sold his country. . . . A few years more, and white men will be all around you. They have their eyes on this land. My son, never forget my dying words. This country holds your father's body. Never sell the bones of your father and your mother. —TUEKAKAS, FATHER OF JOSEPH AND FORMER LEADER OF THE WALLOWA NEZ PERCES

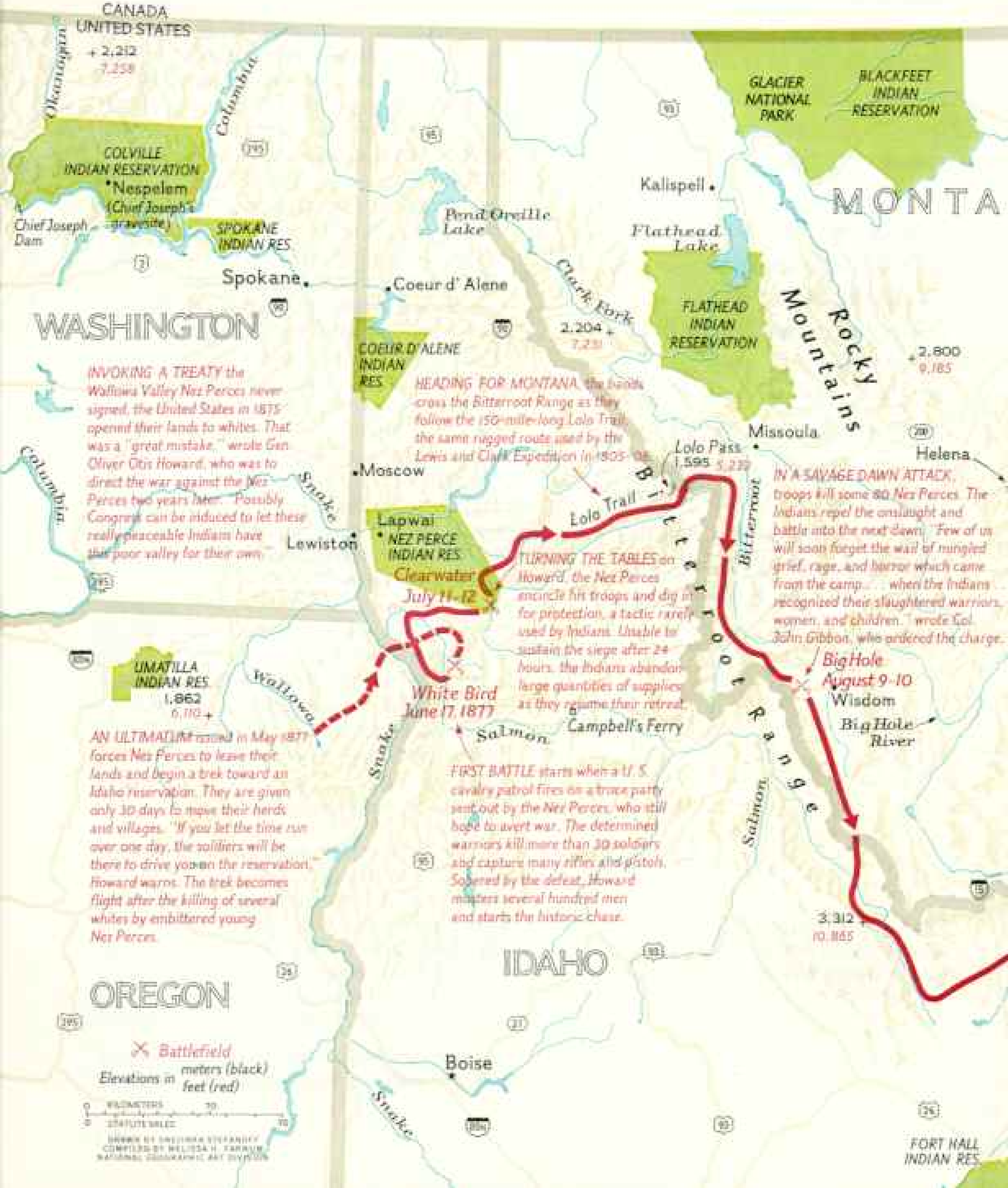
I buried him in that beautiful valley of winding waters. I love that land more than all

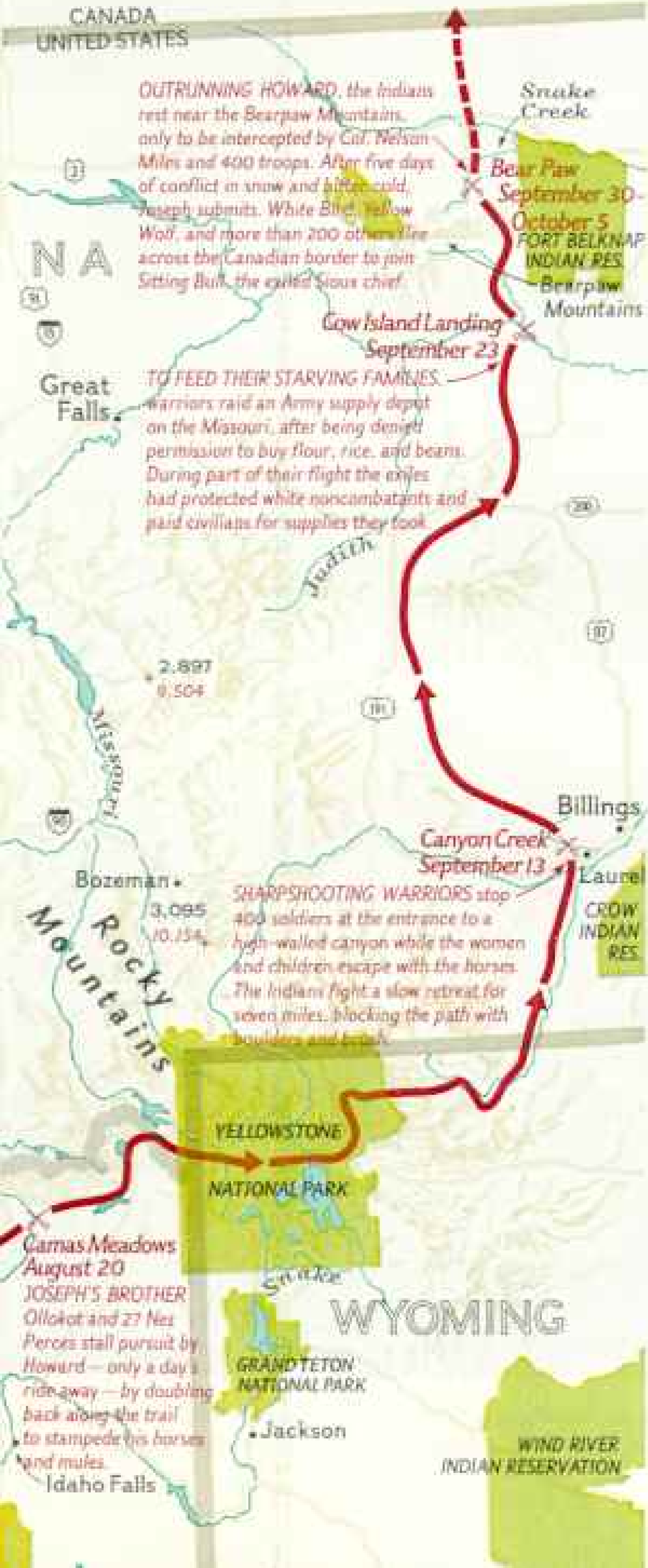
THE NEZ PERCE RETREAT

HOPELESSLY outnumbered and burdened by 500 women and children, 250 Nez Perce warriors tried to flee the troubled Northwest. Zigzagging across 1,700 miles of rugged terrain, they outfought pursuing soldiers equipped with Gatling guns, howitzers, and repeating rifles. Many newspapers chronicled the 115-day ordeal, praising Nez Perce courage.

Contrary to popular belief, the eloquent Joseph fought only as a warrior. While other chiefs guided the war councils, he served as sagacious guardian of the women and children, and protected the vast herd of horses.

In the end, fewer than 450 Indians surrendered. Once rich, they had lost all—their lands, their herds, their freedom.





the rest of the world. A man who would not love his father's grave is worse than a wild animal. —JOSEPH

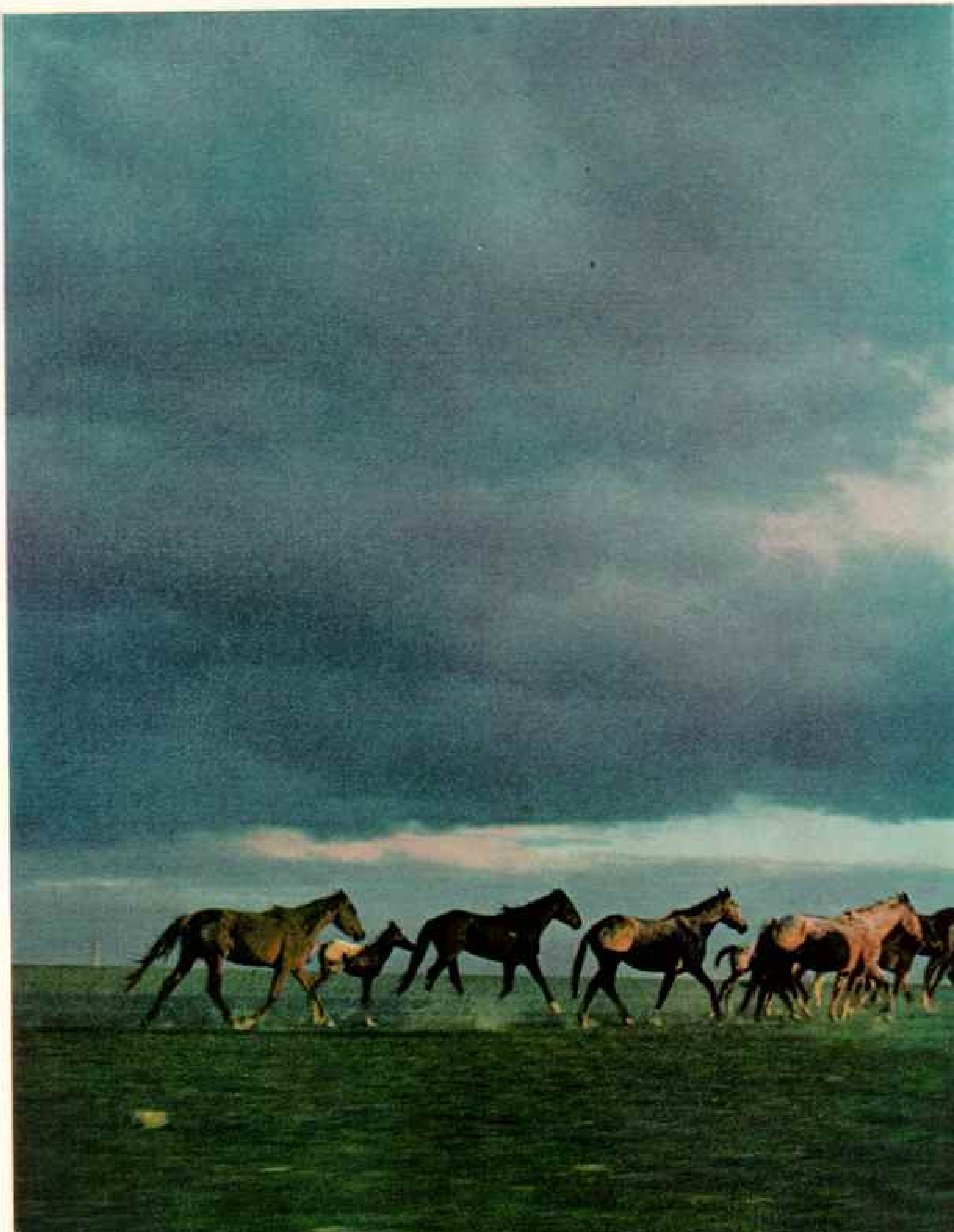
IN 1871 Joseph buried his father in the Wallowa Valley, where his band of about 180 raised cattle and horses, dug roots, hunted, and fished. They had always lived there and knew no earlier home. But the stage was set for their departure. In the words of an 1866 Government report: "This valley should be surveyed as soon as practicable, for the wigwam of the savage will soon give way to the whites. Instead of the hunting and fishing grounds of the red man the valley will teem with a thriving and busy population."

What was once Joseph's domain is now Wallowa County, Oregon—3,178 square miles of mountains, rugged canyons, and some of the finest natural grazing country in the United States. Cattle, grain, lumber, and tourism support a population of just over 6,000. There are no Nez Perces here.

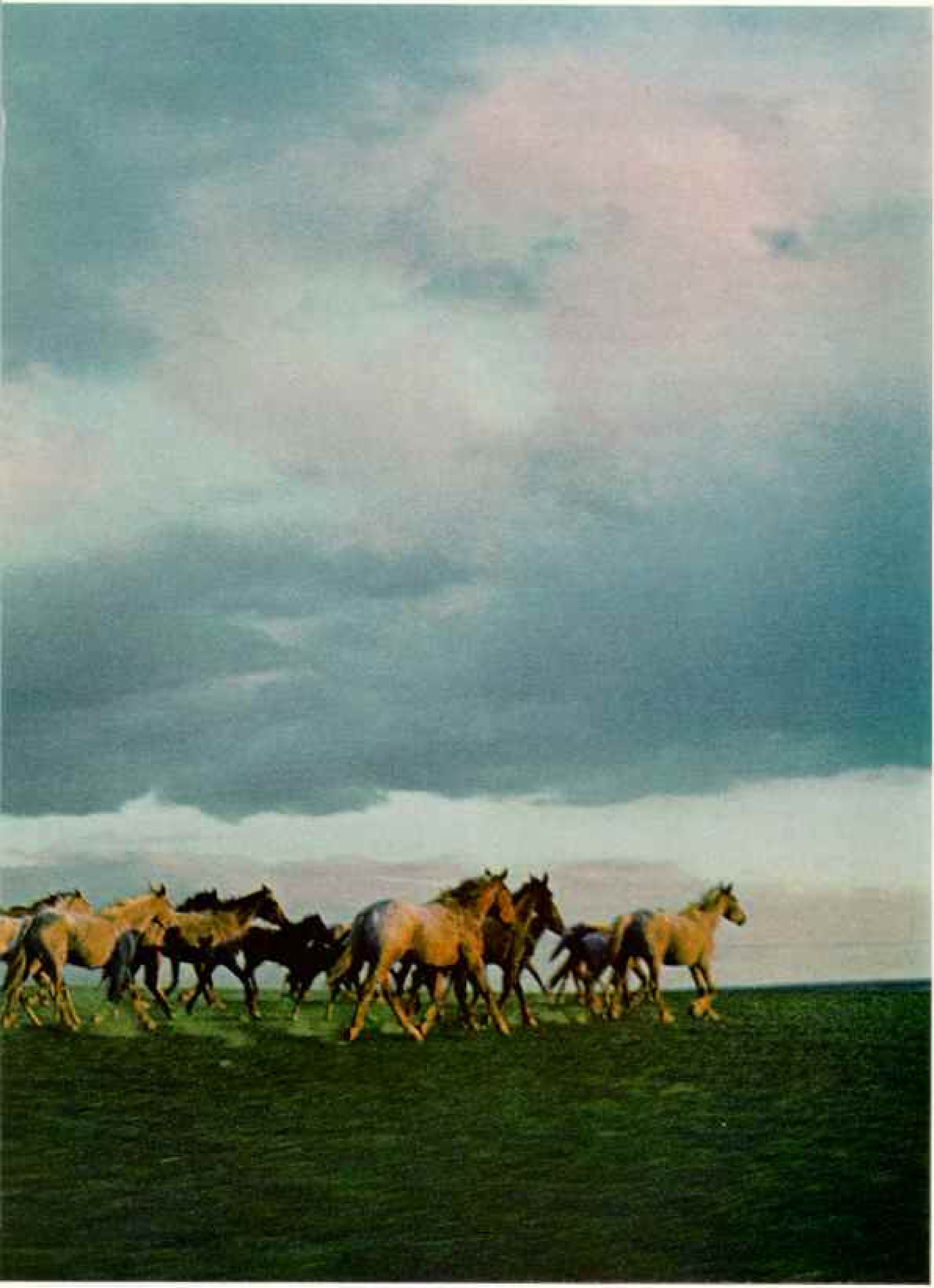
I drove through the valley on a day in early spring. The sun had risen in a cloudless sky to warm the short green spears of new grass. I stopped to watch a chestnut mare lead her spindle-legged foal through cattails bordering a crooked stream. The young one followed, inseparable as a shadow. They drank side by side, and the slender reeds mirrored on the water's surface encompassed them like crosshatch strokes in a pen-and-ink drawing.

The Nez Perces had good country for raising horses—lush, high meadows for summer range, and mountain-protected canyons rich in bunchgrass for winter grazing. Expert horsemen, they were the only Indians known to practice selective breeding. Seeking speed and endurance, they raised animals of all colors. But Meriwether Lewis noticed that a few of the Nez Perce horses were marked "with large spots of white irregularly scattered and intermixed with the black brown bey or some other dark colour." Some believe that those horses were the forebears of today's beautifully spotted Appaloosas.

Grace Bartlett, a handsome woman of 65, has lived in the Wallowa Valley for 44 years. Her late husband was one-fourth Nez Perce. She has studied the history of the Wallowa and its early settlers. "The first whites in this area were not gold seekers and Indian haters," she explained. "That's sometimes



They were as one with their horses, the proud Nez Perces. With exceptional breeding skills, they raised fleet herds for hunting, trading, and racing. When explorer Meriwether Lewis



visited the Nez Perces in 1805-06, he noted that their large herds included "eligantly formed" horses "with large spots of white," perhaps forebears of the Appaloosas in this Idaho herd.

misunderstood. They were homesteaders who raised gardens, had a few head of cattle, and for the most part had good relations with the Indians. A few outsiders sold whiskey to them. The settlers asked the outsiders to leave. If the Wallowa belonged to the Nez Perces, I suppose the settlers shouldn't have been here. But I wonder if they knew that?"

IT'S POSSIBLE that they didn't. But the Government did. By 1872 the prophecy of Joseph's father was drawing closer to fulfillment as homesteaders continued to stake claims in the valley despite the fact that it still belonged to Joseph's band under the terms of an 1855 treaty. He protested peacefully, meeting with some of the whites in council. He said he wished them no harm, but warned that it was not always possible to control the young warriors.

The settlers, for their part, may have believed the valley was open for homesteading under an 1863 treaty supposedly relinquishing it to the Government. Tuekakas, Joseph's father, had refused to sign that treaty, however; the Nez Perces who *had* signed, accepting a reservation in Idaho in exchange, never lived in the Wallowa country. The Government failed or refused to understand that the Nez Perces, like most tribes, consisted of many separate bands, and those bands whose leaders signed treaties had no authority within tribal democracy to speak for anyone but themselves.

In 1873 President Grant issued an executive order dividing the valley between the whites and Indians, establishing a reservation for Joseph's band in the Wallowa. Joseph was disappointed with the decision; he had not signed any paper allowing this to happen. But part of the valley was better than none, and he agreed to share it with the whites.

Two years later, with no additional legal or moral grounds, Grant reopened the entire valley to white settlement, and in late 1876 he sent a commission to persuade Joseph and other leaders who had not signed the treaty to move to the reservation in Idaho with the "treaty" Indians. Reminding them that his father had never sold the valley of winding waters, Joseph spoke to the commission:

Suppose a white man should come to me and say, "Joseph, I like your horses, and I

COURTESY MERRILL D. BEAL (ABOVE); DELANCEY GILL, SMITHSONIAN INSTITUTION (BELOW)

Daring and fun-loving, Joseph's beloved brother Ollokot (**above**) led the Wallowa band in war until his death at Bear Paw. Warrior Peopeo Tholekt (**below**) justified the raid on Cow Island Army depot: "We took whatever we needed. . . . It was war."

DELANCEY GILL, SMITHSONIAN INSTITUTION (LOWER LEFT); EDWARD S. CURTIS, NATIONAL GEOGRAPHIC COLLECTION (LOWER RIGHT); AND WILLIAM ALBERT ALLARD

United in mourning, white and Indian members of veterans' organizations salute Nez Perce soldiers during Memorial Day ceremonies at the band's Nespelem cemetery. Joseph lies here, beside men who fought in both World Wars. Tom Hill (**below, left**), a mixed-blood Delaware Indian who spoke English, served as interpreter for Joseph and Col. Nelson Miles in peace talks at the Bear Paw battlefield. Hill fought with the exiles beside such marksmen as Yellow Bull (**below, right**), renowned as a bison hunter and warrior.

want to buy them." I say to him, "No, my horses suit me, I will not sell them." Then he goes to my neighbor, and says to him: "Joseph has some good horses. I want to buy them, but he refuses to sell." My neighbor answers, "Pay me the money, and I will sell you Joseph's horses." The white man returns to me and says, "Joseph, I have bought your horses, and you must let me have them." If we sold our lands to the Government, this is the way they were bought.

HIS WORDS FELL ON DEAF EARS. In May of 1877 General Howard came to tell Joseph and three other "nontreaty" Nez Perce leaders, Looking Glass, Toohoolhoolzote, and White Bird, that they must move their people to the Idaho reservation or be put there "by force." He gave them 30 days. Joseph's heart must have been as heavy as that of any man who truly knew the meaning of freedom and felt it suddenly wrenched from his grasp. Yet he knew the consequences of a war with the whites. The men met in council and agreed to go to the reservation in peace.

But fate rode on the swift ponies of three young warriors.

While moving to the reservation, these members of White Bird's band—one was only 17, another the son of a man brutally murdered by a white—unleashed their bitterness, killing four settlers well known as Indian haters. Joseph did not condone the violence, but he could not abandon the other bands, even though he knew General Howard would now be after them all. The country was still stunned by Custer's annihilation by the Sioux and Cheyennes in Montana the previous year; Joseph knew there would be no further talks. War was inevitable.

Joseph was not a great warrior. His younger brother Ollokot was the fighter of the Wallowa band. Looking Glass, Toohoolhoolzote, and Lean Elk were considered fiercer in battle and had more influence in war councils than Joseph. His role throughout the war, as it had been before and would be after, was that of guardian and spokesman for his people. He would fight, but he was first and foremost a statesman, and as such he must have sensed the futility of war with people who would not be denied:

The white men were many and we could not hold our own with them. We were like deer. They were like grizzly bears. We had a small country. Their country was large. We were contented to let things remain as the Great Spirit made them. They were not, and would change the rivers . . . if they did not suit them.

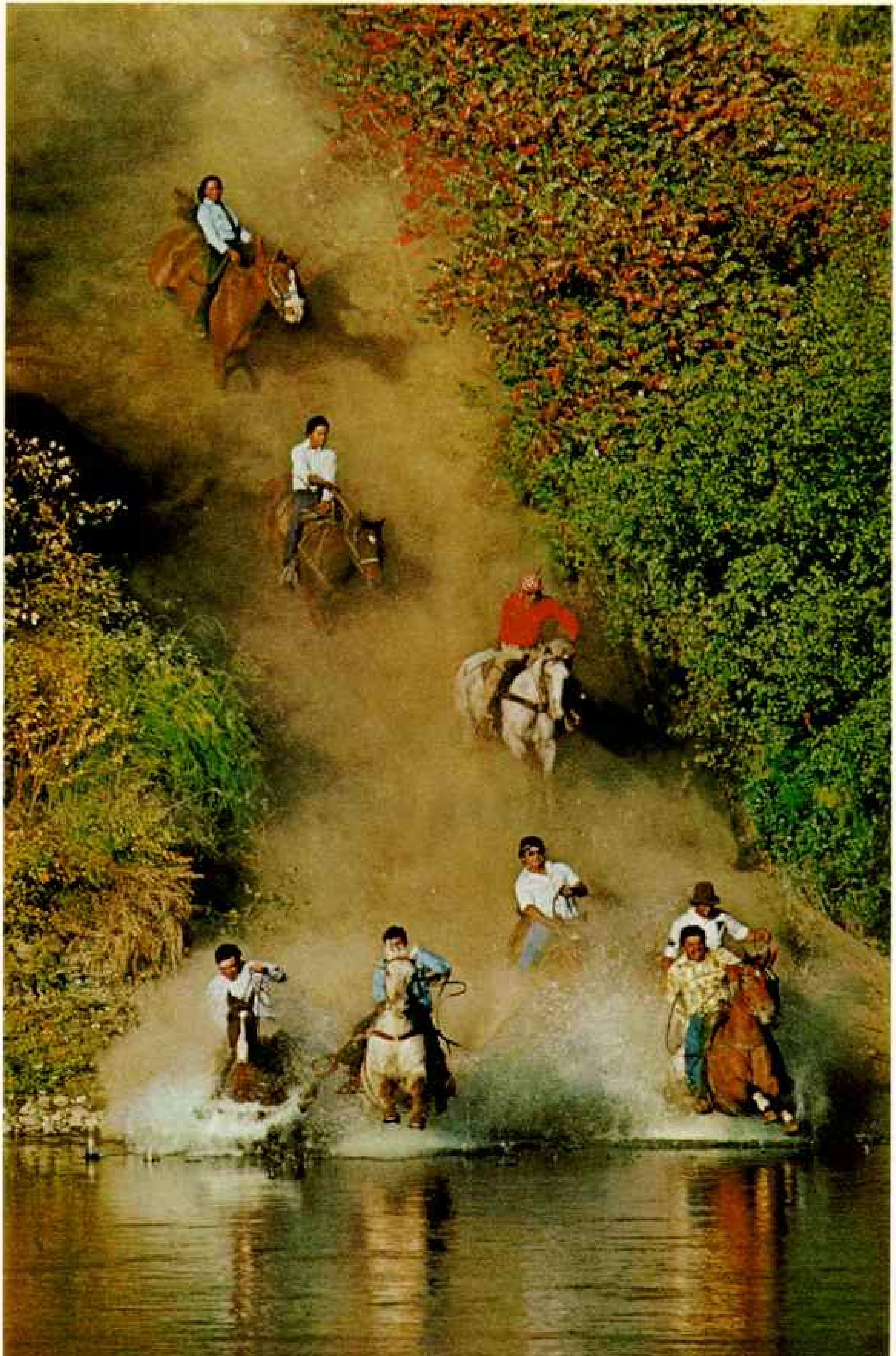
Indeed, some of the rivers of Joseph's country have been changed. There are now 29 hydroelectric dams along the Snake and Columbia, one of which bears Joseph's name. But the rivers in Nez Perce country still run clear and clean. And in the backcountry of those rivers a few people spend their lives contented to let things remain as the Great Spirit made them.

I flew to the Salmon River Breaks Primitive Area to visit one of them: Frances Zaunmiller Wisner, who lives alone on the river at Campbell's Ferry. We landed in a meadow near her 72-year-old house. She was cooking plum jam on a wood-burning stove when I arrived. The closest store is 14 miles away by foot, in a tiny village called Dixie, once the supply point for much of central Idaho. Some of her supplies are flown in, and a garden and orchard provide vegetables and fruit.

Her house is a chaotic display of interests and necessities. By a window stands a tripod-mounted camera to photograph deer and black bears that frequent the orchard. Near the desk are a hand-cranked telephone and a citizens' band radio that keep her in touch with several other river dwellers and the outside world. Books are everywhere.

Twice widowed, Frances has lived on the Salmon since 1940. The wife of the original homesteader died here in labor back in 1905. "You can't bury anyone during these cold winters," Frances said, petting Reuben, her one-eyed Boston terrier. "They had to wrap her in canvas and put her on a shelf in the blacksmith shop until the spring thaw."

Hell-for-leather riders display the skill of their ancestors as they gallop into the Okanogan River during the All-Indian Rodeo on the Colville reservation. The million-acre enclave is the home of 11 small tribes or bands, including the 350-member Joseph group of Nez Perces.




To-Ka-Mappo
Nez perse Tribe
Maj. Moorhouse

Frances rarely leaves her river home. She said, "People ask me, 'Aren't you lonely?' Well, there's a million miles of difference between being alone—and being lonely. I think a lot of people just can't take being alone with themselves."

We dined by lantern light that evening. When I retired to an upstairs bedroom to burrow beneath handmade quilts, I could hear her in the kitchen, still making jam, stopping now and then to explain something to the one-eyed dog. Outside my open window there was a rustling in the trees. The bears were coming into the orchard for some of Frances's fine plums. A coyote yapped from a distant ridge, and sleep came easily.

We moved over to White Bird Creek . . . the soldiers attacked us and the first battle was fought. We numbered in that battle sixty men, and the soldiers a hundred. The fight lasted but a few minutes, when the soldiers retreated before us. . . . They lost thirty-three killed, and had seven wounded. . . . —JOSEPH

ALTHOUGH OUTMANNED and armed with inferior weapons, the Nez Perces thrashed Howard's cavalry as the war began in Idaho's White Bird Canyon. The Indians suffered no fatalities. The overwhelming defeat of the Army at White Bird resulted in the mobilization of military units from all points of the compass and groups of civilian volunteers from Oregon, Washington, and Idaho. In the Nez Perce camp, however, the hope was to avoid further fighting —to retreat.

Following several skirmishes in which the Nez Perces lost one or two men, the war moved to the banks of the Clearwater River. On July 11, they were struck hard by Howard's artillery-supported force of more than 500 men. Nez Perce losses were relatively light, four killed and six wounded. But the Indians were momentarily dispersed, and by not pursuing them harder, Howard perhaps lost a chance to end his mission there.

Unlike the Army, the Nez Perces had no reserves to replace their losses. They retreated again, this time eastward across the rugged Lolo Trail. With all their possessions and a herd of more than 2,000 horses, they moved quickly but not in panic. They had already named Howard "General Day After Tomorrow," because he seemed always to be about that far behind them.

She fought like a man. Bending under a load of sticks, To-Ka-Mappo (**facing page**) reportedly shouldered a rifle during the war. Most women cooked, tended the horses, and set up the tepees.

Initially unwilling to fight, Chief Looking Glass (**below**) settled peaceably on the Lapwai, Idaho, reservation. After an unprovoked attack by soldiers and civilians, he joined the fugitives.

MAJ. LEE MOORHOUSE (FACING PAGE); WILLIAM H. JACKSON; BOTH NATIONAL ANTHROPOLOGICAL ARCHIVES, SMITHSONIAN INSTITUTION

We intended to go peaceably to the buffalo country, and leave the question of returning to our country to be settled afterward. —JOSEPH

ONCE THEY WERE out of Idaho, the Nez Perces thought, the war would cease. Descending from the Lolo Pass, they moved peacefully through Montana's Bitterroot Valley, trading with whites in small villages along the way. For years they had gone on buffalo-hunting trips to Montana. This time they followed a circuitous route. It was longer

"The Creative Power, when He made the earth, made no . . . lines of division."

said Joseph. Now wheat fields pattern former tribal lands in eastern Washington.

but it would bypass the large white settlements and take them through the Big Hole Basin, where they could rest and graze their horses before pushing eastward into the country of their friends, the Crows.

They would soon discover they were at war with the entire United States, and that they had no friends.

Wounded children, screaming with pain; women and children crying, wailing for their ... dead! The air was heavy with sorrow. I would not want to hear, I would not want to see again. —YELLOW WOLF, NEZ PERCE WARRIOR

AT DAWN on August 9, after a hard five-day ride from Fort Missoula, 197 soldiers and civilian volunteers under Col. John Gibbon attacked the sleeping Nez Perce camp in the Big Hole Basin. During a bitter 24-hour battle in which the Indians exhibited superb marksmanship, Gibbon's forces were pinned down. But the Nez Perces suffered 80 dead—about 50 were women and children, among them the wives of Joseph and Ollokot.

The whites lost 29 men. To the relief of the besieged whites, the Indians headed south with their wounded after hurriedly burying

their dead beneath the crumbled banks of the Big Hole River. They sang the mourning songs and wept.

Called the "Valley of 10,000 Hay Stacks," the Big Hole Basin is about 15 by 60 miles in size. Ranchers first came to the basin in the 1880's. Irrigation ditches, fed by mountain streams, water more than a hundred different species of wild grass, harvested by ranchers to nourish cattle through long winters when the snow lies four feet deep.

Eighty-eight-year-old Tom Roberson lives in the hamlet of Wisdom a few miles from the Big Hole National Battlefield. His father fought there as a civilian and told Tom he had seen a white girl in the Nez Perce camp.

"He said a young girl with blond braids was standing behind an Indian woman in the doorway of a tepee," said Tom. "My father said the woman was holding a muzzle-loading pistol and a soldier killed her. The bullet passed through the woman and killed the girl. Later they found the girl buried beneath a strip of sod, covered with a fawn skin. They never were able to discover her identity or why she was there."

We talked in the kitchen of his small cabin, comforted by the warmth and fragrance of a wood stove. He wiped his eyes often as old men do, and his hands trembled a bit. Tom would be well over six feet tall, but age has bent him some. He's cowboy'd from Mexico to Canada. He showed me a beautiful pair of spurs he'd made himself, with hammered silver on the shanks. I offered to buy them. "I kind of hate to sell my last pair of spurs," Tom said. "It would be like saying good-bye."

FROM THE BIG HOLE the Nez Perces moved briefly down into Idaho and then turned east. Looking Glass had been the primary strategist. But because he had ignored several warriors' premonitions of danger prior to the killing of the women and children, his influence lessened, and Lean Elk became the principal war leader. By the end of August they had crossed Yellowstone National Park and were headed north.

Yellowstone was established in 1872. By 1884 it was the home of the last of America's bison herds. Hide hunters were rapidly turning "buffalo country" into a vast boneyard littered with the chalk-white skeletons of the beasts Gen. Philip Sheridan reportedly called "the Indian's commissary." Sheridan applauded their near extermination as the answer to "the vexed Indian question."

Hero from another world, Superman puts Nez Perce patriarch Elijah Williams to sleep but enthralls his granddaughter. Williams has a final wish: to narrate on tape his family's experiences in the Nez Perce War. Many of his relatives died during the fighting and years of exile in Kansas and Oklahoma. In 1879 his uncle, Yellow Bull, went to Washington, D. C., with Joseph to seek redress for the Nez Perces.

The bitter Nez Perces now considered all whites as enemies, and some civilians were killed along their route, including two Yellowstone tourists. But no women or children were slain, no women were assaulted, and no scalps were taken. This could not be said of Howard's Bannock Indian scouts, who mutilated and scalped throughout the war.

I do not understand how the Crows could think to help the soldiers. They were fighting against their best friends! —YELLOW WOLF

THE NEZ PERCES were amazed to discover their old friends working as scouts for Col. Samuel Sturgis and the 400 troopers of Seventh Cavalry who attacked them at Canyon Creek, near present-day Laurel, Montana.

But Sturgis's attack failed, and the Indians fled rapidly north through the Judith Basin, hoping to reach sanctuary in Canada. Sitting Bull had found refuge there after the Battle of the Little Bighorn; perhaps they could join his village of Sioux.

As I followed Joseph through Montana, I spoke to ranchers and farmers who said they couldn't meet the cost of working the land much longer. I saw houses replacing farms and heard talk about big money coming in with the coal companies.

Montana has always had a special kind of allure to me. Her open space seems to fulfill some inner need in me, like that indefinable human rapport that sometimes occurs between strangers. I loved her at first sight more than a decade ago and wish I'd met her earlier. But with vast coal resources and the increasing economic strain on those who struggle to live with the land, not just on it, how much longer will Montana be the open rough-edged lady she is today?*

I drove north, beyond the Missouri River. The radio's weather report said that visibility was fifty miles. How many Americans living in the haze-filled canyons of our cities have ever seen a day like this, I wondered, scanning the horizon for the distant profile of the Bearpaw Mountains.

Children crying with cold. . . . Everywhere the crying, the death wail. . . . I felt the coming end. All for which we had suffered lost!

—YELLOW WOLF

ON THE LAST DAY of September they were camped on a narrow ribbon of water called Snake Creek, in the coulee-furrowed prairie beneath the northern edge of the Bearpaw range, less than 40 miles from Canada. Open on three sides, it was not a good place to fight. But if there was to be no more fighting, as they believed, then it was a fine place to rest. After all, weren't Howard and Sturgis at least two or three days to the south? Looking Glass was again the leader. We can rest here, he told them. Tomorrow they could move toward Canada and peace.

Most of them would never see Canada, and many would never see the golden leaves of another autumn. Howard and Sturgis were indeed far behind. But the troops of Col. Nelson "Bear Coat" Miles were just minutes away, riding toward their camp at a fast trot. They had ridden northwest from Fort Keogh 12 days earlier and now, on a cold, winter-tinged morning, a bugler tensed his lips and sounded the charge.

Digging heels to the flanks of their mounts, 383 soldiers and Cheyenne scouts swept down upon the camp like an arctic wind. The sound must have rumbled across the prairie like thunder. Warriors fired desperately, covering the retreat of a few who were able to flee north. The camp was a nightmare of shouting and shooting and the groans of crippled and dying horses.

Vastly outnumbered, the Nez Perces still broke the attack. The soldiers fell back, surrounding the camp. The siege lasted five days. The women dug trenches and rifle pits with knives, with cooking utensils, with bare hands. Cannon fire buried some of them in those meager shelters. Children and wounded lay sobbing with pain, cold and hungry, far from home. Even the sky showed no mercy and filled the air with snow.

Howard arrived on the evening of October 4 and assured Miles that he would be given credit for the inevitable victory. The following afternoon Joseph surrendered his rifle and his people. Looking Glass was dead. Lean Elk and Toohoolhoolzote were dead. And Ollokot, Joseph's beloved brother—dead. White Bird, the only other surviving leader, was alive but refused to surrender. With darkness he would leave by foot for Canada. Joseph, the man of

*See "Should They Build a Fence Around Montana?" by Mike W. Edwards, NATIONAL GEOGRAPHIC, May 1976.

SMITHSONIAN INSTITUTION (ABOVE); SUZZALLO LIBRARY, UNIVERSITY OF WASHINGTON

Forgiveness in his heart, Joseph meets with John Gibbon in 1889, twelve years after the veteran Indian fighter's savage attack on sleeping families in Montana's Big Hole Basin. A decade earlier Joseph had been bitter: "The Nez Perce never make war on women and children . . . we would feel ashamed to do so."

Writing of the controversial dawn raid —in which he reportedly ordered that no Indians be taken alive—Gibbon lauded the "gallant struggle" of the warriors, stalwart as the trio (**right**) who posed for this portrait in 1903. "Who would have believed," he wrote, "that those Indians would have rallied after such a surprise and made such a fight?"

Chill winds swept the bleak foothills of the Bearpaw Mountains that September 30th in 1877 when the troops of Col. Nelson Miles swooped down on the weary Nez Perces. Digging into the coulees, the besieged Indians held on for five agonizing days. On the

peace who had merely asked for justice, stood alone.

It is cold, and we have no blankets. The little children are freezing to death. My people, some of them, have run away to the hills, and have no blankets, no food. No one knows where they are—perhaps freezing to death. I want to have time to look for my children, and see how many of them I can find. Maybe I shall find them among the dead. Hear me, my chiefs! I am tired. My heart is sick and sad. From where the sun now stands I will fight no more forever.

IT WAS OVER. With a promise from Colonel Miles that they would be sent back to Idaho, Joseph surrendered 87 men and 331 women and children. The Army confiscated their weapons, 1,500 horses, and about 300 saddles. Once prosperous people, they were now destitute.

And homeless. Officials in Washington, D. C., countermanded the surrender terms and decided that the Nez Perces should be imprisoned in Kansas and then sent to a reservation in Oklahoma. Miles apologized to Joseph. The saddened leader said simply, "When will the white man learn to tell the truth?"

. . . the climate killed many of us. All the newborn babies died, and many of the old people too. . . . We were always lonely for our old-time homes. . . . No mountains, no springs, no clear running rivers. Thoughts came of the Wallowa where I grew up. . . . Of tepees along the bending river. . . . From the mountain forests, voices seemed calling. I felt as dreaming. Not my living self. —YELLOW WOLF

KANSAS AND OKLAHOMA were foreign country to these mountain people. Many of them died of malaria and of loneliness perhaps impossible for a white

sixth, his people "naked and freezing," Joseph surrendered. A lone marker stands near the spot where Chief Looking Glass fell—last fatality of the conflict. A valiant epic of the tragic Indian Wars had ended—less than forty miles from Canada and freedom.

man to fathom. By 1879 nearly a hundred of those who had surrendered had died in Kansas. Joseph pleaded to Congress for the ones who were left.

I only ask . . . to be treated as all other men are treated. If I cannot go to my own home, let me have a home in some country where my people will not die so fast. . . .

Whenever the white man treats the Indian as they treat each other, then we shall have no more wars. We shall be all alike—brothers of one father and one mother, with one sky above us and one country around us, and one government for all. Then the Great Spirit Chief who rules above will smile upon this land, and send rain to wash out the bloody spots made by brothers' hands upon the face of the earth. For this time the Indian race are waiting and praying.

The Government finally listened. In 1885 the Nez Perces were allowed to return, and 118 went back to Idaho. But Joseph and 149 followers were exiled to the Colville reservation in Washington State. Adhering to his native "Dreamer" religion that stressed a reverence for the earth and tribal traditions, Joseph was considered a dangerous influence among Idaho Nez Perces, many of whom had adopted Christianity. Thus he lived out his years at Colville and died there, perhaps the loneliest of deaths—in exile—still longing for the valley of winding waters.

And today?

The struggle goes on. Among 1,500 Nez Perces living on the 87,000-acre Idaho reservation there is 28 percent unemployment. Richard Halfmoon, chairman of the tribe's executive committee, says discrimination is partly to blame. "Some people still refer to us as 'bucks' and 'squaws,'" he said. "It's not as bad as the signs in Lewiston that used to say 'No Dogs or Indians Allowed,' but it's still a part of our unemployment problem; that and a lack of education and vocational skills.

"The 20th century came upon our people very quickly," added 67-year-old Halfmoon. "Skills like carpentry, plumbing—we didn't have anything like that, not even in my age group. We're still trying to develop them."

"Establishing self-pride among the young is one of the most important goals," says Committeeman Cliff Allen. "It's hard to be productive if you don't have pride in what you are. Between the ages of 16 and 25 many Indians find themselves suspended between two worlds. They're educated to be white, but their spirit calls out to be what they are—Indian. For years we have been taught that the only way to succeed is to be white. We must reverse that kind of education and teach Indians to be Indians. Along with skills we must teach customs, traditions, languages, and treaties. Few Indians *or* whites know much about treaties this country has made. They should be taught in all public schools."

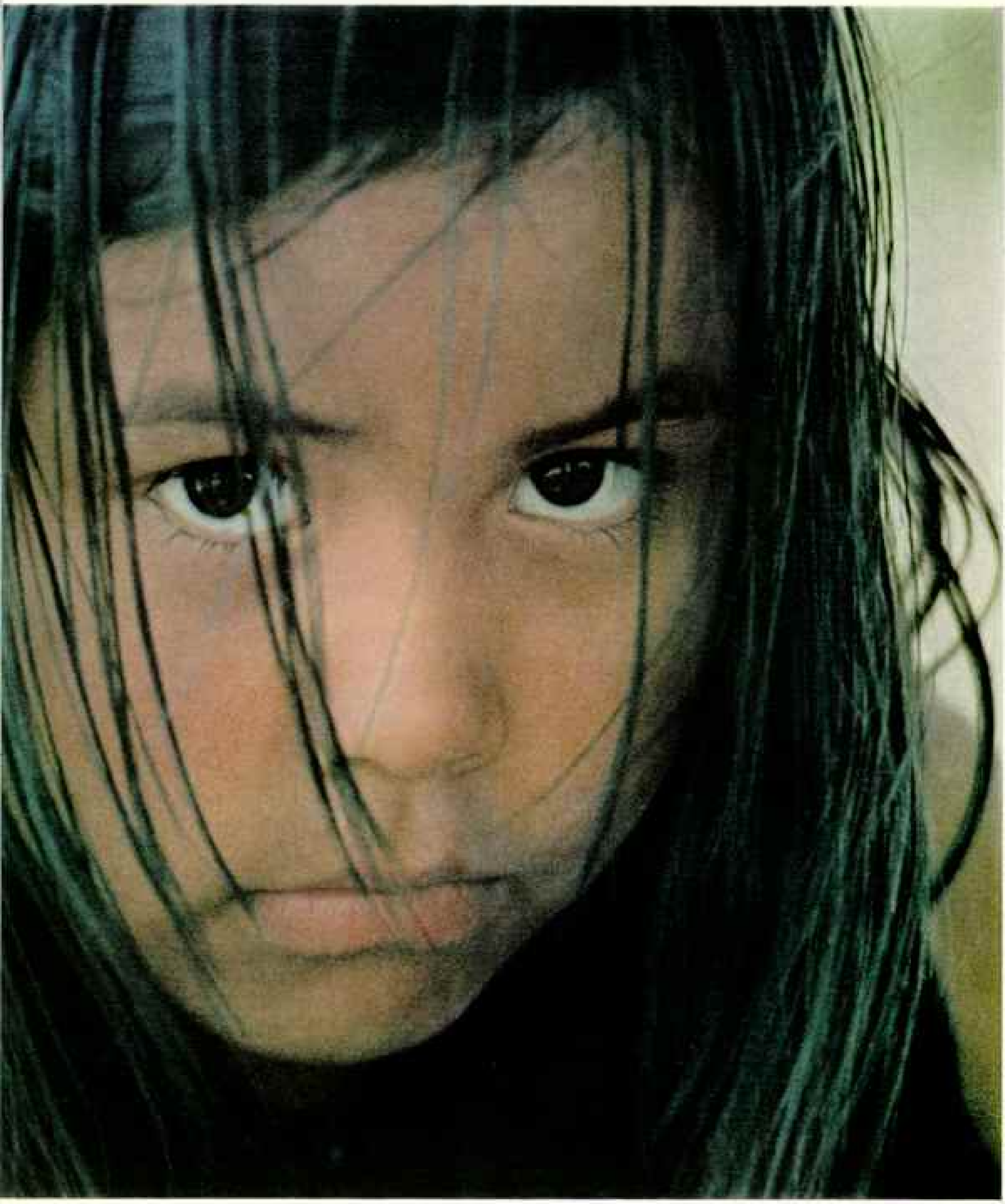
The remnants of Joseph's band are still in Washington, on the million-acre Colville reservation, a 3,200-member confederacy of 11 tribes. About 350 Nez Perces live there. Joe Redthunder is their leader. His uncle, Jackson Sundown, was a child in the war and later became a world champion rodeo rider.

ON A SUMMER AFTERNOON Joe Redthunder drove me through some of his land in the hills above Nespelem. A well-to-do man compared to some of his neighbors, Joe worked in construction for 35 years, built up his landholdings, and managed to send eight of his nine children through college.

"There used to be hundreds of horses on these hills," he said, as the Chevy pickup jounced through the sage. "Everywhere you looked there were horses. We'd round them up from March until June. Not many here now . . . too much cars . . . all the time, cars. That's all they think about, these young ones. Us guys been around awhile, we know better. I guess I got too much horse in me."

In his late 60's, Joe is a short, stout, quiet man, reluctant to tell what he heard about the war as a boy, when many of the old folks who had participated were still alive. "There are some of us who know the stories of those days," he said. "We are often asked to tell them. Whites come around asking questions, but we don't tell them anything. Sometimes they offer money, and friends say, 'Oh, they're

Distrust is the legacy of a young Indian girl whose people have endured a ceaseless struggle for dignity and justice.



It is cold, and we have no blankets. The little children are freezing to death. My people, some of them, have run away to the hills, and have no blankets, no food. No one knows where they are—perhaps freezing to death. I want to have time to look for my children, and see how many of them I can find. Maybe I shall find them among the dead. Hear me, my chiefs! I am tired. My heart is sick and sad. From where the sun now stands I will fight no more forever.

white people—they won't know the difference—tell them anything and get the money.' But that's not right. No, we will tell those stories to our children when the time is right. When we think they are capable of taking care of it—we will give the history to our children. That is the Indian way."

Each July Indians from around the Northwest, Canada, and as far south as Arizona gather at Colville for a ten-day celebration. Traditional dances, ceremonies, and visiting with old friends fill the days and nights. During the celebration I witnessed some of the Indian ways followed by Redthunder and the Colville Nez Perces.

At midday a circle of tepees lay beneath the burning sun, as if semiconscious, on a flat of land above the Columbia. With the blue coolness of dusk the circle came to life. Families gathered by their tepees. A girl strolled by in a full-length buckskin dress, her long black hair braided and wrapped in otter fur and red cloth. Pickup trucks bumped along the road into the campground, headlights cutting yellow shafts through a veil of dust. There was Indian handicraft for sale, and a white man set up a stand to sell balloons, key chains, neckerchiefs, bumper stickers; the usual bright display of a carnival peddler.

And how much were the neckerchiefs, asked a young Indian.

"A dollar apiece, friend," said the huckster, "and I've got all the pretty colors. Red ones, blue ones . . . you want a red one?"

"Hell, yes, I want a red one," said the young man. "I ain't a blue Indian."

From a large, open-sided tent came the hollow echoing of drums. Dogs barked.

A voice began to sing in a high, piercing, almost violinlike wail. Men with painted faces weaved rhythmically in a circle, their costumes resembling the elegant plumage of birds: feathers of reds and oranges, soft greens and blues. Some wore breastplates of polished links of bone. The air held the musky odor of smoke-tanned buckskin. Women joined the circle, children too, and the dancing continued long into the summer night.

During the encampment some of Redthunder's people joined in a feast and ceremony in which individuals receive the Indian names of deceased members of their families. "As we grow older," said Joe, "we follow our traditions, regardless if not many of us are left. To meet one another, to tell stories, to sing songs—that is a good thing."

It is also a thing of sad memories to some, like 78-year-old Elijah Williams (pages 426-7), whose grandfather, grandmother, and three aunts were killed in the war. "This is a very sorrowful time," he said, recalling ceremonies of other years. "I have seen tears in the eyes of those who heard called the names of their fathers . . . mothers . . . sisters . . . brothers."

Later, when I knew Elijah better, I visited his house, and he recalled bits and pieces of the war embedded in his mind from stories heard long ago. For a brief moment or two he'd describe the action with swift movements of his hands, and then stop. I found it futile to pursue the subject gently.

"You're talking about blood and tears," he said. "It's not a thing you sit down and talk about over a cup of coffee. The remembering hurts." Then he sat in silence, hands folded, an old man again, staring at his fingertips.

ON THE COLD September morning of its ninety-eighth anniversary, I walked across the Bear Paw battlefield. The grass was pale and crisp with frost. I knelt in the shallow cup of a rifle pit almost filled now by the healing process of time and then climbed the knoll where Looking Glass was killed. A brace of pheasants exploded from the brush. I sat for a while on that knoll.

In the willows by the creek I saw a rabbit, and it saw me and stopped, its velvet body frozen in anticipation, unsure of my intent. "Have you ever tried to tame a wild rabbit?" an Indian friend had asked me, miles ago. "It may seem yours for a while, and then one day it flees if it can, or if it can't, then it dies because it willed itself to die. They must be free. That is the way of wild things."

Yes. And man must also be free. Not because he is wild, but because he is capable of reason and can, if he chooses, will himself to live and grow with humanity, and renew his dedication to the earth.

The frost was gone now, dissolved by the sun into droplets that lay like silver beads upon the willow stems. The rabbit, its eyes like liquid sensors, watched intensely as I moved slowly along a path that would cross the creek and take me away from that place.

I looked back a moment later and it was gone. □

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THE NATIONAL GEOGRAPHIC SOCIETY is chartered in Washington, D. C., in accordance with the laws of the United States, as a nonprofit scientific and educational organization for increasing and diffusing geographic knowledge and promoting research and exploration. Since 1890 the Society has supported 1,362 explorations and research projects, adding immeasurably to man's knowledge of earth, sea, and sky. It diffuses this knowledge through its monthly journal, NATIONAL GEOGRAPHIC; supplement maps distributed to members; its books, globes, atlases, filmstrips, and educational films; *National Geographic WORLD*, a magazine for children age 8 and older; information services to press, radio, and television; technical reports; exhibits from around the world in Explorers Hall; and a nationwide series of programs on television.

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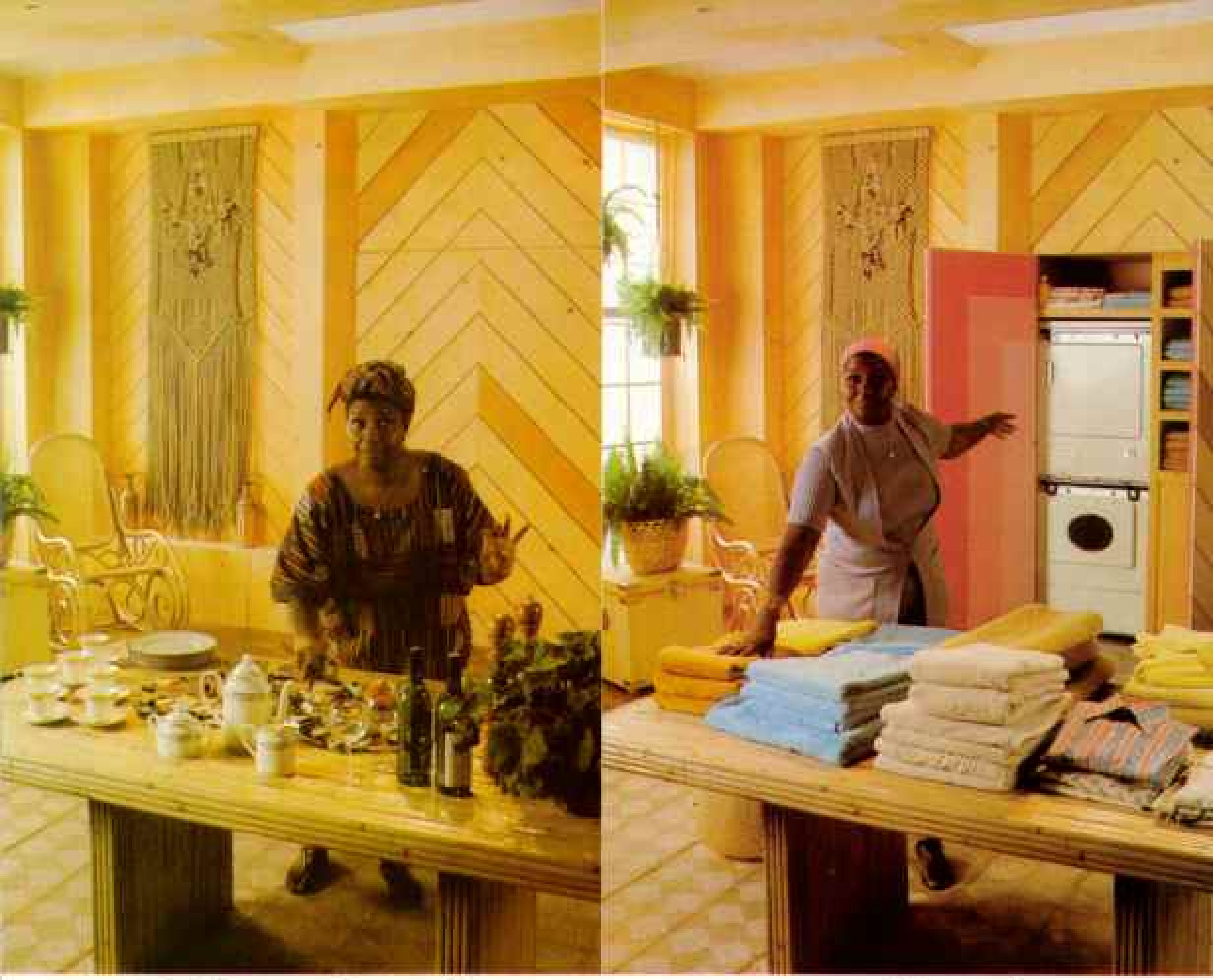

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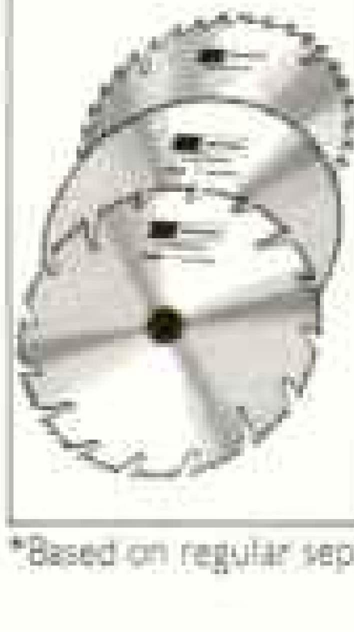

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THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC STAFF

He writes in hieroglyphs

PUTTING THE PICTURE SCRIPT of ancient Egypt to a modern use, eminent Egyptologist Dr. Labib Habachi of Cairo shows how scribes might have written "National Geographic Society." Dr. Habachi helped us prepare the spectacular art portfolio that leads this issue (pages 293-311). Dr. John Cooney of the Cleveland Museum of Art and Dr. David Silverman of Chicago's Oriental Institute also lent their expertise.

Your friends would welcome such treasures of word and picture, which arrive with the magazine each month. Nominate them for membership today.

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the book
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the earth,
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and the
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And in the rear, the wheels are arranged in tandem, one behind the other, rather than side by side.

This arrangement offers several advantages. First, when combined with GMC's air suspension system, it helps to make for a smooth and stable ride. Second, it allows the use of six brakes rather than four, one at each wheel. And third, it provides impressive room inside. Because when the rear wheels are in tandem, they intrude less on interior space.

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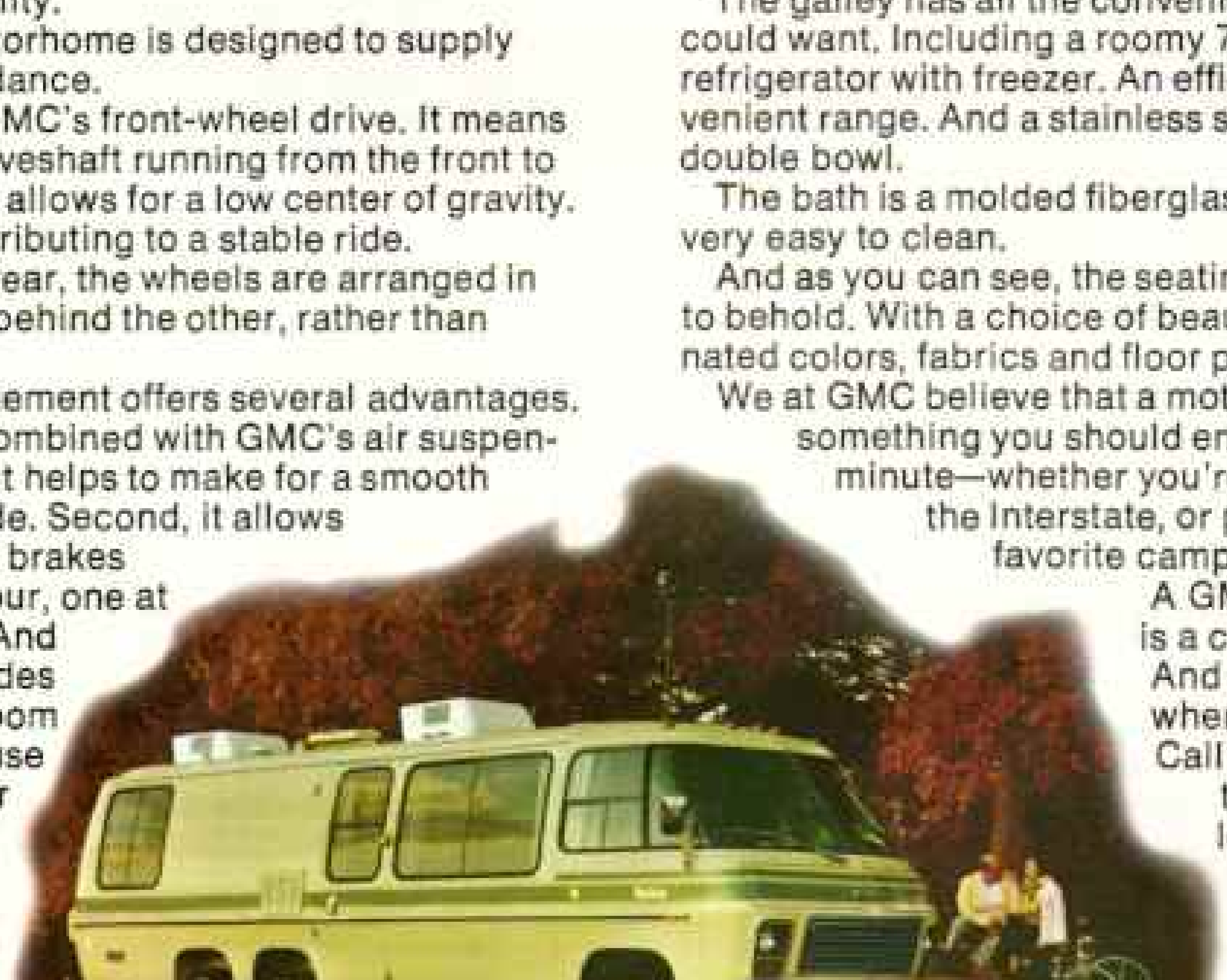

THE MOTORHOME FROM GENERAL MOTORS GMC

Recent studies have shown that blood levels of vitamin C were as much as 30 percent lower in smokers than in non-smokers.

Alcohol may interfere with the body's utilization of vitamins B_1, B_6 and folic acid. Also, heavy drinkers frequently eat poorly.

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Scientific evidence suggests that many conditions and stresses of everyday life increase the body's vitamin needs.

With finicky eaters, the sick, the snacker and children, much of the meal and its vitamins often end up in the garbage.

If you take birth control pills, you may need folic acid and two to ten times the normal amount of vitamin B_6. Ask your physician.

Six ways you may be robbing your body of vitamins.

Vitamins are essential to life and good health. So you should try to eat balanced, nutritious meals. When you're shopping, read the labels, because today many vitamin-fortified foods are available.

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I'm giving my Congressman hell. I'm telling him to quit the fancy maneuvering and the politicking and to get about the business of some kind of national energy policy.

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Right now I favor the development of coal. There's lots of it all over the world – we supposedly have a 300 year supply right here in the United States. We know how to get it out of the ground. We know how to transport it. We know how to handle it. Now, I'm not saying there aren't other potential energy sources – from nuclear, which is here but in limited use – to solar, which is still years away from broad practical application. The point is, we need something soon.

I like the kind of life we've got here in this country. I think regular citizens must live better here today than kings did a few hundred years ago. But I think it's up to me – and people like me – who benefit from this way of living to make sure it continues.

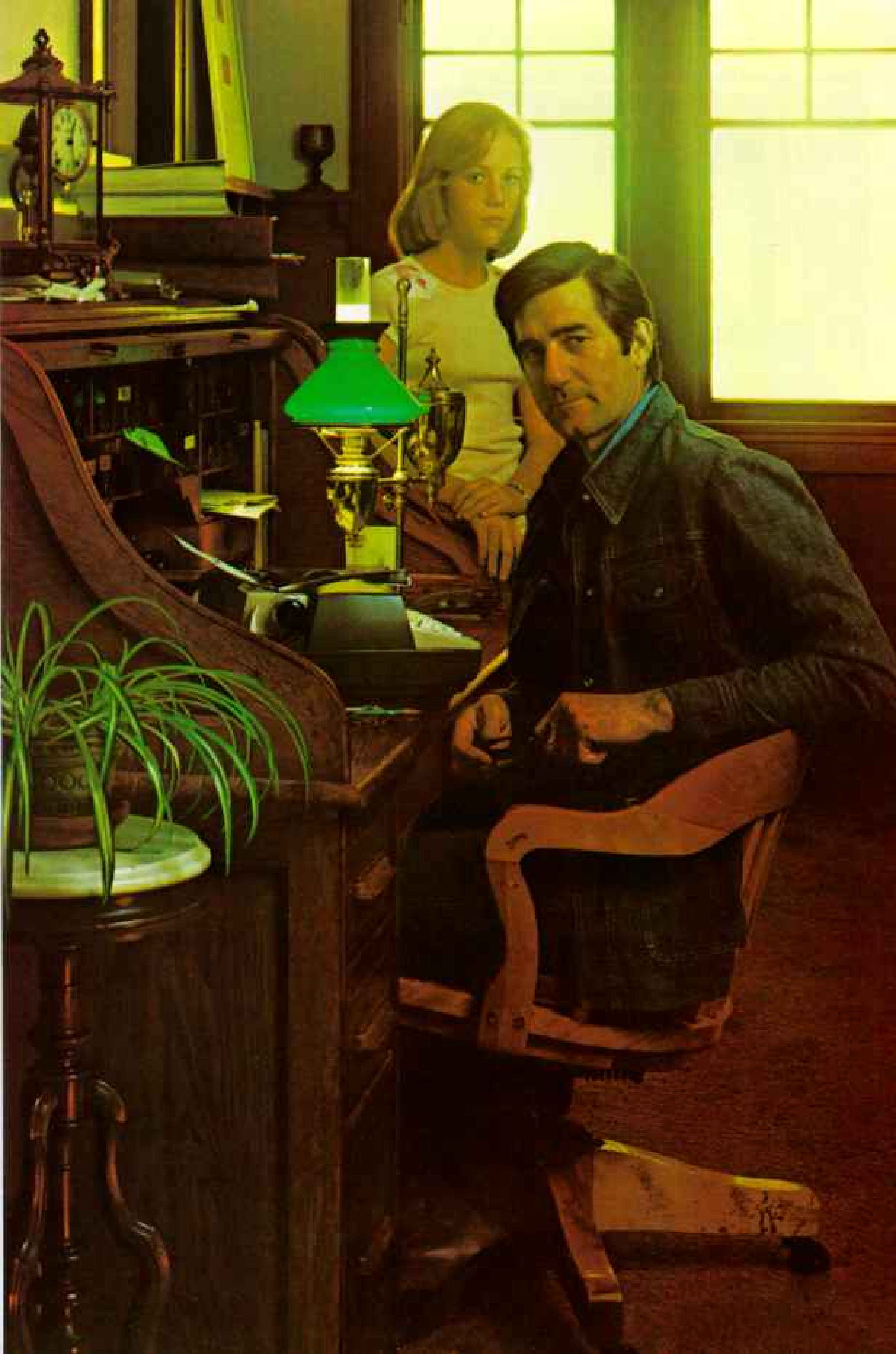
I say we've got to take the bull by the horns and get moving.

Atlantic Richfield Company believes that one of our national goals must be a sound national energy policy that includes an immediate plan for the development of alternate energy sources.

When you have the opportunity of expressing your opinion on this issue, we hope you will. Be an involved American. Consider the facts. Take a stand. Get involved.

For more information on this issue, please write: Atlantic Richfield Company, National Energy Policy, P.O. Box 30169, Los Angeles, California 90030

ARCO



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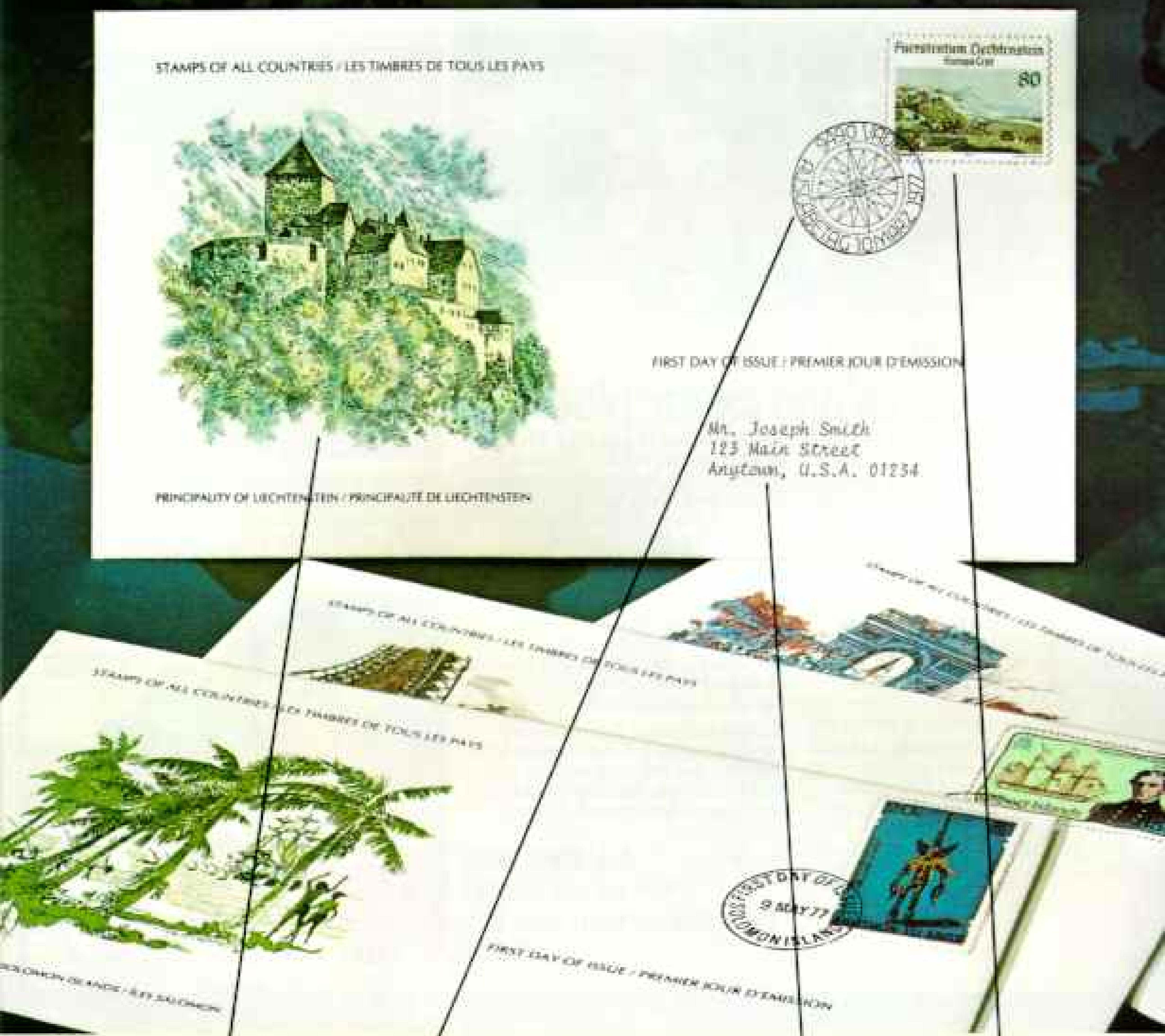

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The collection is being issued *once* and *once only,* in strictly limited edition. It is available only by advance subscription, with a firm limit of one subscription per person. And the world-wide closing date for all subscriptions is April 5, 1977. After that date, this collection will never be offered again.

Outstanding First Day Covers from every part of the world

These First Day Covers will come to you from every corner of the world. Each stamp will be an outstanding work, created by the issuing country in tribute to its national heritage. And each stamp will be officially postmarked in its country of origin, at the officially designated Post Office of First Issue, with the First Day cancellation that makes the cover an authentic and coveted collector's item.

At this very moment, in fact, representatives of the International Society of Postmasters are working in many countries to make the arrangements that will enable you to acquire and own this extraordinary collection.

For this is a collection that would be almost impossible for any one person to build on an individual basis. It is the most significant and impressive series of international First Day Covers *ever* issued. It is a collection that will be a joy to own—bringing you, each month, significant new commemorative stamps on distinctive, limited-edition First Day Covers. Month by month, you will be building a unique and comprehensive collection of First Day Covers from around the world.

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This comprehensive collection of international First Day Covers is one of the most significant and important undertakings in the history of stamp collecting. For each subscriber, the thrill of receiving these covers from the far corners of the world will be matched only by the fascination of acquiring so complete and comprehensive a collection. And by the satisfaction of sharing this collection—and the knowledge it brings—with one's children and grandchildren throughout the years to come.

Subscription deadline: April 5, 1977

The International Society of Postmasters has authorized The Franklin Philatelic Society, the international stamp division of The Franklin Mint, to handle the processing of all subscriptions and shipment of the First Day Covers in this unique collection. Your application should therefore be mailed directly to The Franklin Philatelic Society, Franklin Center, Pennsylvania 19091, by the subscription deadline of *April 5, 1977.*

Because the supply of stamps available to the International Society of Postmasters for this collection is limited, the Society must reserve the right to close the edition even *before* April 5. Subscription applications will be accepted in sequence of receipt. It is therefore suggested that you enter your application promptly.

SUBSCRIPTION APPLICATION

The Stamps of All Countries First Day Cover Collection

Valid only if postmarked by April 5, 1977.
Limit: One subscription per person.

International Society of Postmasters
℅ The Franklin Philatelic Society
Franklin Center, Pennsylvania 19091

Please enter my subscription for *The Stamps of All Countries First Day Cover Collection*, consisting of an official First Day Cover from every stamp-issuing country in the world except those few where covers are not available to me because of government regulations.

My covers will be sent to me at the rate of 3 per month beginning in May 1977, and the price of $4.* per cover ($12.* per month) will be *guaranteed* to me for the complete collection. A matched set of display albums to hold all the covers will be sent to me at no additional charge.

I understand that I need send no money now. I will be billed for my covers as they are sent to me.

*Plus my state sales tax

Signature____________________

All applications are subject to acceptance.

Mr.
Mrs.
Miss____________________

PLEASE PRINT CLEARLY

Address____________________

City____________________

State, Zip____________________

PERSONALIZATION INSTRUCTIONS—CHECK ONE:

☐ Personalize my covers exactly as shown above.
☐ Personalize my covers as indicated on the attached sheet of paper. (Print the name and address you wish in block letters and enclose with this form.)
☐ Do not personalize my covers.

In Canada—mail applications to The Franklin Philatelic Society, 70 Galaxy Boulevard, Rexdale, Ontario M9W 4Y7. Original issue price: $4 per cover, plus provincial sales tax, if any.

The New 810

Datsun introduces the family cars with a 240-Z engine.

Fuel injected response.
No more crawling up hills or creeping onto highways. Because Datsun's new 810 has six cylinders of power. Packed into a proven 240-Z engine that's been tried, tested and retested.

Sedan or station wagon.
Both with solid unibody construction for smooth handling and a quiet ride. Plus the added advantage of fully independent suspension in the sedan.

Comfort of a mid-size car.
Comfort reaches high standards in the new 810. You'll find the interior fully appointed. With tilt steering wheel, six-way adjustable driver's seat, cut-pile carpeting and AM/FM stereo radio. Plus a maintenance warning system, steel belted radials and more.

The new Datsun 810. Suddenly, a comfortable, economical family car with the performance and handling of a 240-Z car.

Suddenly it's going to dawn on you.

DATSUN SAVES

CANADA.
SO MUCH TO GO FOR

Canada is a land of towering mountains, of cities with an exciting difference. Canada offers you clear blue lakes and bright blue skies, sunny days and sunnier smiles. And when you get here, you'll find it easy to be as active and busy or just as peaceful as you want.

Come for a weekend or come for a month. Come whichever way suits you best–by road, air or rail. Whatever kind of vacation you want, at whatever price, you'll get more than your moneysworth in new experiences and great good times. Come to Canada. It's easy to make your own arrangements. Or, talk to a travel agent soon. Then come on! There's so much to go for.

Canada

The splendour of a mountain lake in the Canadian Rockies

A friendly moment with the Royal Canadian Mounted Police

Mingle with the street artists in old Quebec

CONSERVING ENERGY:

Check your home against this home.

No one's watching . . . better turn off the TV. And how about switching to lower wattage light bulbs wherever you can?

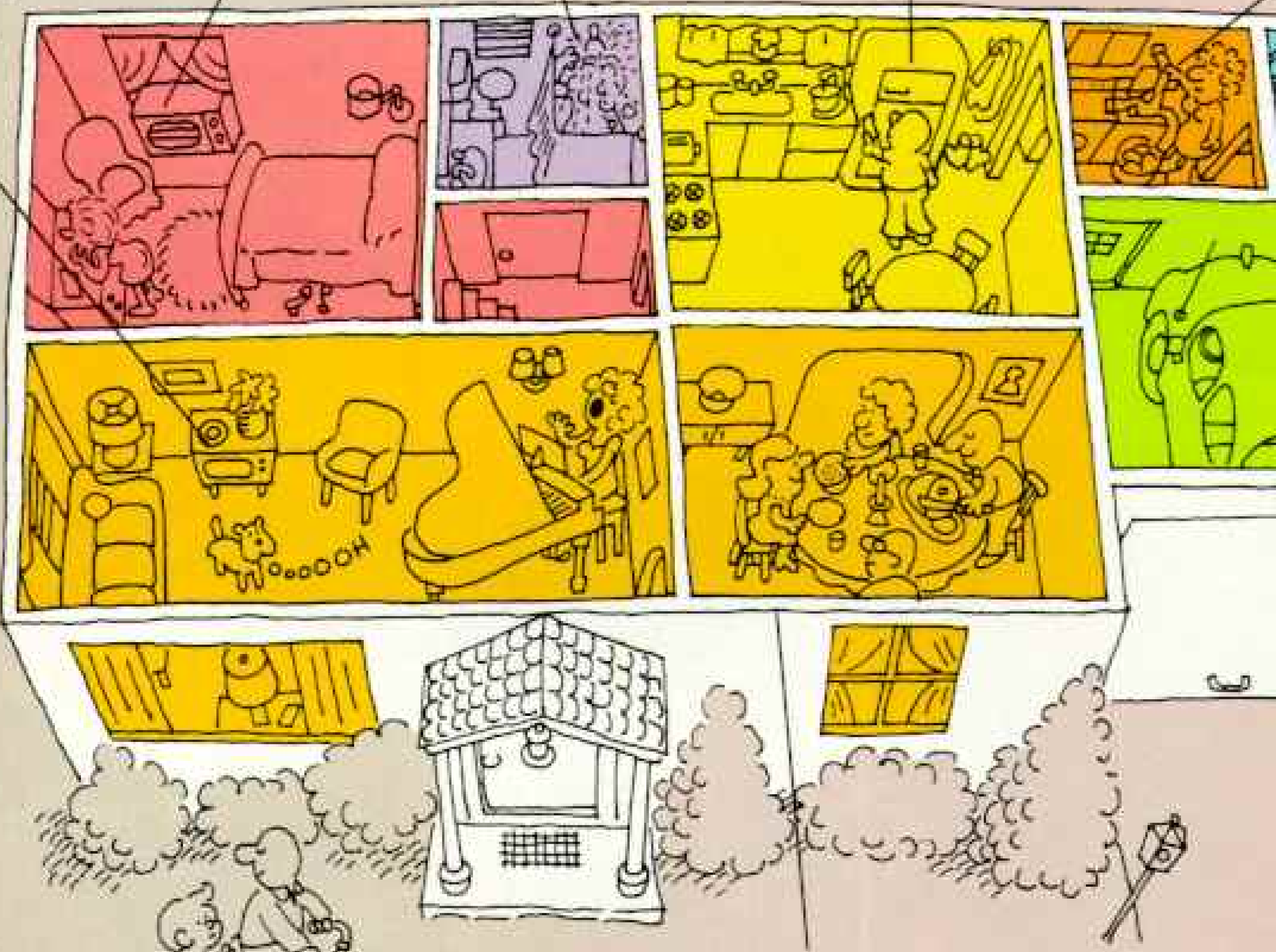
Is that air conditioner really needed every time you use it?

Surprise! Taking showers instead of baths uses only about ½ as much hot water.

Try this: close your refrigerator door on a new dollar bill. Does it hold the bill tightly? If not, the refrigerator probably needs a new gasket.

Also check the Energy Efficiency Rating when buying any appliance, including air conditioners.

Another energy-saver is to thaw meats before cooking.

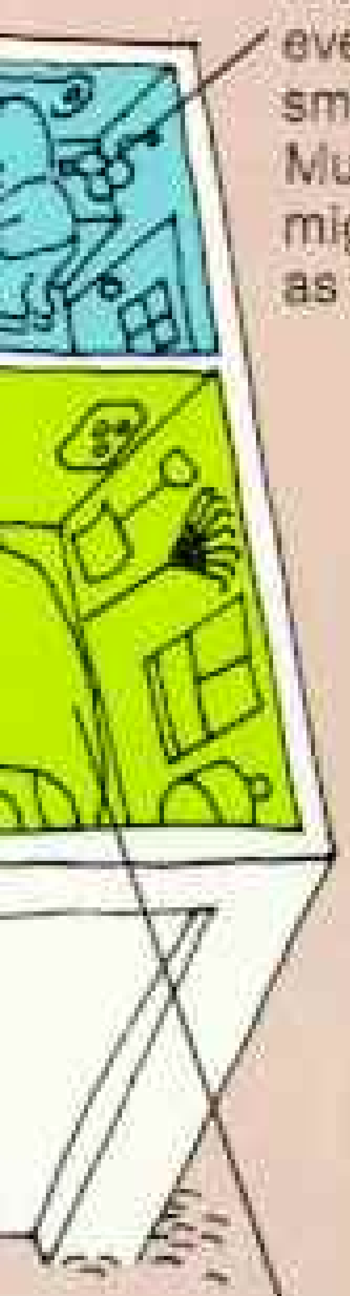


Is your insulation adequate? Attic? Outside walls? Around doors? Have storm windows? Proper insulation is the *single greatest* way to cut heating bills. (Check a contractor for local requirements.)

Use your own energy—save the nation's. Bicycle! Also make a habit of using mass transit. And encourage your friends to do the same thing, too.

Energy for a st

It's as important today as it was during the shortage of '73-'74. Here's why, and what you can do.



During the winter of 1973/1974, Americans realized that it was critical to "save a watt" and "not be fuelish." Energy conservation was the watchword because some of the foreign oil we were using was cut off, and domestic supplies of gas and oil had not been able to meet all of our needs for some time.

Today energy conservation is practiced by many Americans. But greater efforts, by more people, are needed because conserving energy is absolutely vital.

Conservation: another energy source.

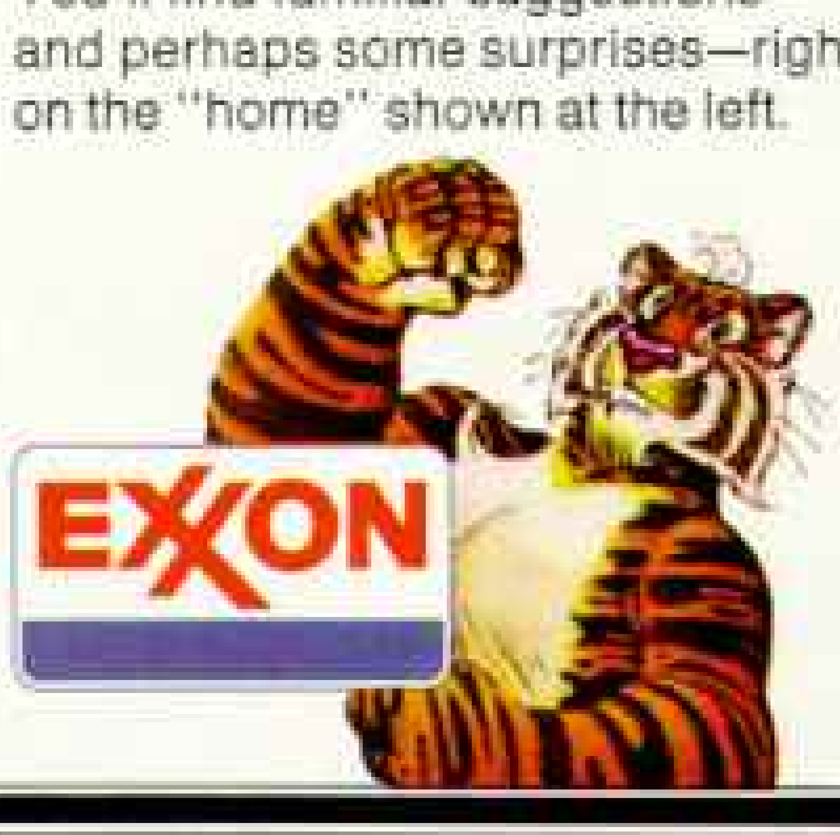
Gas and oil are finite, nonreplaceable resources. That's why Exxon is working on developing other sources of energy, as well as on ways of finding more gas and oil. But development takes time: 3 to 7 years to establish a coal mine; and it's going to take time before enough solar systems can be put into use to make a substantial contribution to our energy needs.

No doubt you're wondering how you and others can save energy, and if your individual efforts can save enough to really do any good. Absolutely! And one of the best places each of us can save energy is at home. When you consider the impact of 57 million American family dwelling units, the savings add up fast. In fact, the National Petroleum Council estimates that 14% of the energy now used in America's dwelling units could be saved . . . the equivalent of 11 billion gallons of petroleum products per year. So you see, your share is much more than just a drop in the barrel.

Saving energy also saves money.

The wise use of energy is also wise money-management, for it can save on your fuel and electric bills. Some examples: HEAT. Each degree above 68° F on your thermostat can add 3% to the amount of energy needed, and a proportionate amount to your heating bill. LIGHT. One 100-watt bulb burning for 10 hours uses the equivalent of 1 pound of coal . . . you pay for it on your electric bill. WATER. If a faucet leaks one drop of water per second, it can waste 700 gallons a year. If it's hot water, that's both energy and money down the drain.

There are countless ways to save energy. Our tip is to find the ways that are most practicable for you. You'll find familiar suggestions—and perhaps some surprises—right on the "home" shown at the left.



rong America

The March Honda: 54 mpg highway. 41 mpg city.*

For as long as the EPA has been testing cars, 50 miles per gallon has been a magic number, a record to shoot for. Like 60 home runs or the 4-minute mile.

Now our 1977 Honda Civic CVCC® 5-Speed has become the first car sold in America to do the impossible. According to EPA estimates it got 54 mpg for highway driving, 41 mpg city.*

See your Honda dealer and test drive the car that broke the Mileage Barrier. The 1977 Honda Civic 5-Speed. It's brand new. But already it's a very rare car.

Civic CVCC 1488cc		Price**	EPA Mileage Estimates* Highway	City
Hatchback	5-Speed	$3599	54 (51)	41 (34)
	4-Speed	$3299	50 (46)	39 (35)
	Hondamatic	$3449	37 (34)	32 (28)
Sedan	4-Speed	$2999	50 (46)	39 (35)
Wagon	4-Speed	$3549	41 (37)	30 (28)
	Hondamatic	$3699	32 (32)	27 (25)
Civic 1237cc (not available in Calif. and high altitude counties)				
Sedan	4-Speed	$2779	43	28
Hatchback	4-Speed	$3049	43	28
	Hondamatic	$3199	29	23

*EPA ESTIMATES. The actual mileage you get will vary depending on the type of driving you do, your driving habits, your car's condition and optional equipment. For high altitude models, see your dealer for EPA mileage estimates. Calif. mileage shown in parentheses.

**Manufacturer's suggested retail price plus freight, tax, license and optional equipment. High altitude models $35 extra.

MARCH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TUES	WED	THURS	FRI	SAT	SUN	MON	TUES	WED	THURS	FRI	SAT	SUN	MON	TUES	WED

HONDA CIVIC

What the world is coming to.

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
THURS	FRI	SAT	SUN	MON	TUES	WED	THURS	FRI	SAT	SUN	MON	TUES	WED	THURS

The Official Gold Inaugural Medal
of the Presidential Collectors Society

Now you can own this limited edition gold piece, honoring America's newest president. Once sold out, it will never be offered again. Therefore, this commemorative could become a valuable collectors' item, as well as a cherished keepsake of this important event in our nation's history.

Generously sized, it is the same diameter as a United States quarter dollar. A strikingly beautiful gold piece, with proof-like mirror finish, minted in genuine 10K gold. The obverse side features a portrait of President Carter, reproduced from a sculptured bust commissioned by the Presidential Collectors Society, as their exclusive design.

Attractively packaged in a clear presentation case, this medallion is set in rich velvet, inscribed in 24K gold print.

In honor of this momentous day, the first gold medallion to be struck from the dies will be presented to President Carter as his keepsake of the most important occasion in his life.

Because this gold piece is produced as a limited edition, only one person in a thousand will have the opportunity to own one. Therefore, we must limit orders to 3 per person. We suggest that you order early so that you won't be disappointed.

- **Genuine 10K gold... not "gold filled" or "gold plated".**
- **Included with each medallion is a serial numbered Certificate of Authenticity.**
- **Sold on a 30 day money back guarantee.**

For faster delivery on BankAmericard, Master Charge or American Express orders, you may phone in your order to our toll-free WATS line (all states except Calif.): 1-800-423-2608.

$18.95

Plus postage • limit 3 per order

NOTE: Due to fluctuation in the price of gold, we reserve the right to withdraw this offer.

PRESIDENTIAL COLLECTORS SOCIETY ▪ (213) 980-8845
12164 Ventura Blvd. ▪ Studio City, California 91604

INCREDIBLY LOW PRICED!
Now you can buy a genuine gold piece, at extremely low cost, from one of the largest rare coin organizations. Established 1959.

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12164 Ventura Blvd., Dept. S-3
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Enclosed please find $______ in payment for ______ Gold Pieces at $18.95 each (limit 3 per order), plus $1.00 each for postage and handling. California state residents add 6% sales tax.

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CITY ________ STATE ____ ZIP ____

Or charge this order on your BankAmericard, Master Charge or American Express

- ☐ **BankAmericard**
- ☐ **Master Charge**
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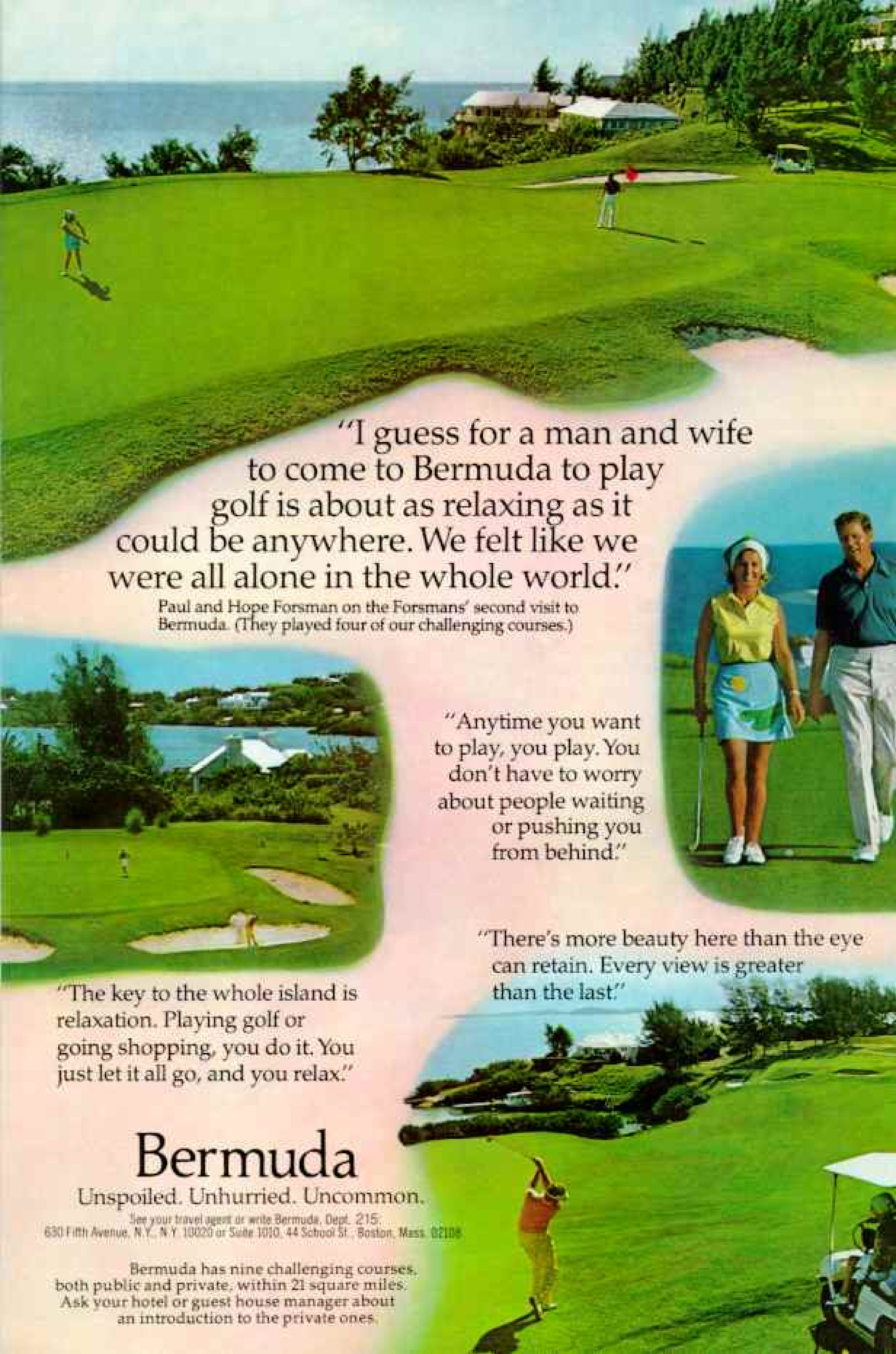
Expiration Date ________


"I guess for a man and wife to come to Bermuda to play golf is about as relaxing as it could be anywhere. We felt like we were all alone in the whole world."
Paul and Hope Forsman on the Forsmans' second visit to Bermuda. (They played four of our challenging courses.)
"Anytime you want to play, you play. You don't have to worry about people waiting or pushing you from behind."
"The key to the whole island is relaxation. Playing golf or going shopping, you do it. You just let it all go, and you relax."
"There's more beauty here than the eye can retain. Every view is greater than the last."
Bermuda
Unspoiled. Unhurried. Uncommon.
See your travel agent or write Bermuda, Dept. 215:
630 Fifth Avenue, N.Y., N.Y. 10020 or Suite 1010, 44 School St., Boston, Mass. 02108
Bermuda has nine challenging courses, both public and private, within 21 square miles. Ask your hotel or guest house manager about an introduction to the private ones.

We made health food long before it became a fad.

In 1894, two brothers, Will and Dr. John Kellogg, named it Toasted Corn Flakes.

They didn't make it with intentions of starting a cereal company. Instead, their toasted corn flakes were developed for the patients at the Battle Creek Sanitarium.

Dr. John felt the need to find a lighter, healthier food to replace the heavy, fat-ladened breakfast of the times.

Ready-to-eat cereals aren't thought of as "health food" today. You won't find them among the rosehips and the wheat germ in any health food store.

Yet the whole idea behind today's attraction for health food — pure and simple good nutrition — is what Kellogg's is all about.

Corn Flakes, like most of our ready-to-eat cereals, are fortified with essential vitamins and minerals.

Kellogg's fortified cereals and milk are part of a breakfast that's low in cholesterol and low in fat. A typical one-ounce serving of Kellogg's Corn Flakes® cereal, by itself, is just 110 Calories.

Kellogg's Corn Flakes are light. Tasty. And nutritional.

Chances are, there's probably a package of our "health food" in your kitchen.

Kellogg's
CORN FLAKES

Leave it to Cadillac to lead the way.

. . . with the next generation of the luxury car. Fleetwood Brougham. Coupe deVille. Sedan deVille. Designed and engineered for a changing world. Retaining the things that have made Cadillac America's most popular luxury car . . . Roominess. Elegance. Security. And adding to it. With more maneuverability than in 1976 for easier parking. More rear legroom and headroom in the DeVilles. More extensive measures to help fight corrosion. Even more comfort and convenience. Small wonder Cadillac 1977 has received such fantastic acceptance in the marketplace. But you must drive it. You must drive it to know why we call it the next generation of the luxury car.

Cadillac 1977

Country bridges . . . thousands are on the verge of collapse. Yet to repair all of them involves almost incomprehensible sums. What's the answer?

The U.S. Dept. of Transportation reports there are over 34,000 functionally deficient bridges on the Federal aid road system in the U.S. today. Many are old, rusting things, structurally deficient, unable to carry today's bigger loads. All too often a heavy load or flash flood will collapse one, endangering lives, interrupting traffic until the bridge can be repaired.

Replacing all our old and obsolete bridges would prevent failures. But it would cost well over $10 billion according to DOT. That's a big price tag. Particularly when many of these bridges are on lightly travelled country roads many of us never see.

It's a problem we can't ignore. Bridges are vital elements in our ability to get farm goods to market, and deliver needed supplies to our farms. Rail abandonment programs and increased farm output have resulted in a sharp increase in shipments of farm produce by truck.

Bad roads and long detours around condemned bridges increase transportation costs. The cost is ultimately passed on to consumers in the form of higher food prices.

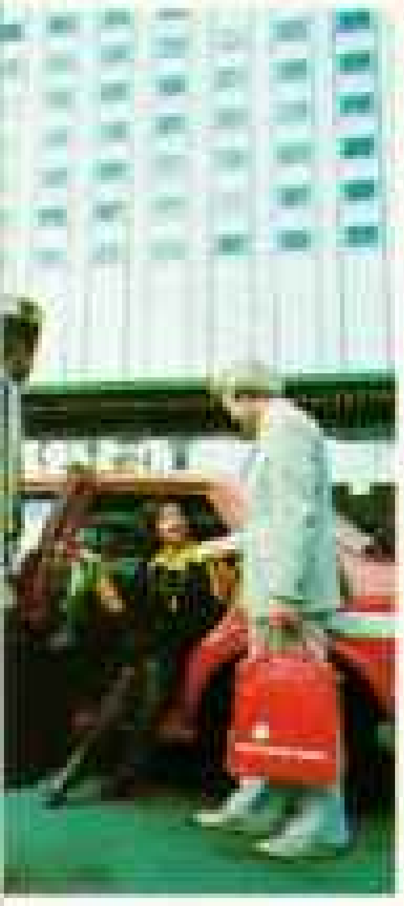
Replacing all 34,000 deficient bridges at one time is not realistic. At the same time, modernizing key country roads and bridges must have a high priority in the nation's overall transportation program.

Caterpillar Tractor Co. makes machines that build roads, pipelines, railroads, airports and waterways. We believe good rural roads are vital to our National well being.

There are no simple solutions. Only intelligent choices.

CATERPILLAR

Caterpillar, Cat and ⊞ are Trademarks of Caterpillar Tractor Co.



No other airline has so many ways to save you money in the Orient.

The Northwest Orient VIP Travel Plan. Finest and most comprehensive travel plan of its kind.

Orient VIP Shopping Savings. Discounts up to 30% on fine merchandise from respected merchants in five Orient cities. Save 15% on translation services and 10% on city tours.

Orient VIP Hotel Savings. 19 distinguished Orient hotels offer you discounts from standard rates or a better room at standard rates, depending on the hotel. Late 6:00 p.m. check-out privileges, too. To qualify, book your room in advance through your travel agent or Northwest.

Orient VIP Tours. A complete variety, carefully chosen for reliability, in every price range. All include money-saving group air fares.

Northwest offers much more. Before your flight reserve your seat by phone, order bilingual business cards at a nominal charge. On board enjoy the VIP seating section next to First Class, limited duty free shopping, our most elegant inflight service, movies and stereo ($2.50 charge in coach), 747 comfort all the way.

Call 800-328-7120 toll-free. (800-552-1290 in Minnesota). We'll send you, free of charge, our colorful Orient tour booklets and a copy of "How to save money in the Orient!" Or call your travel agent.

NORTHWEST ORIENT
The best of both worlds

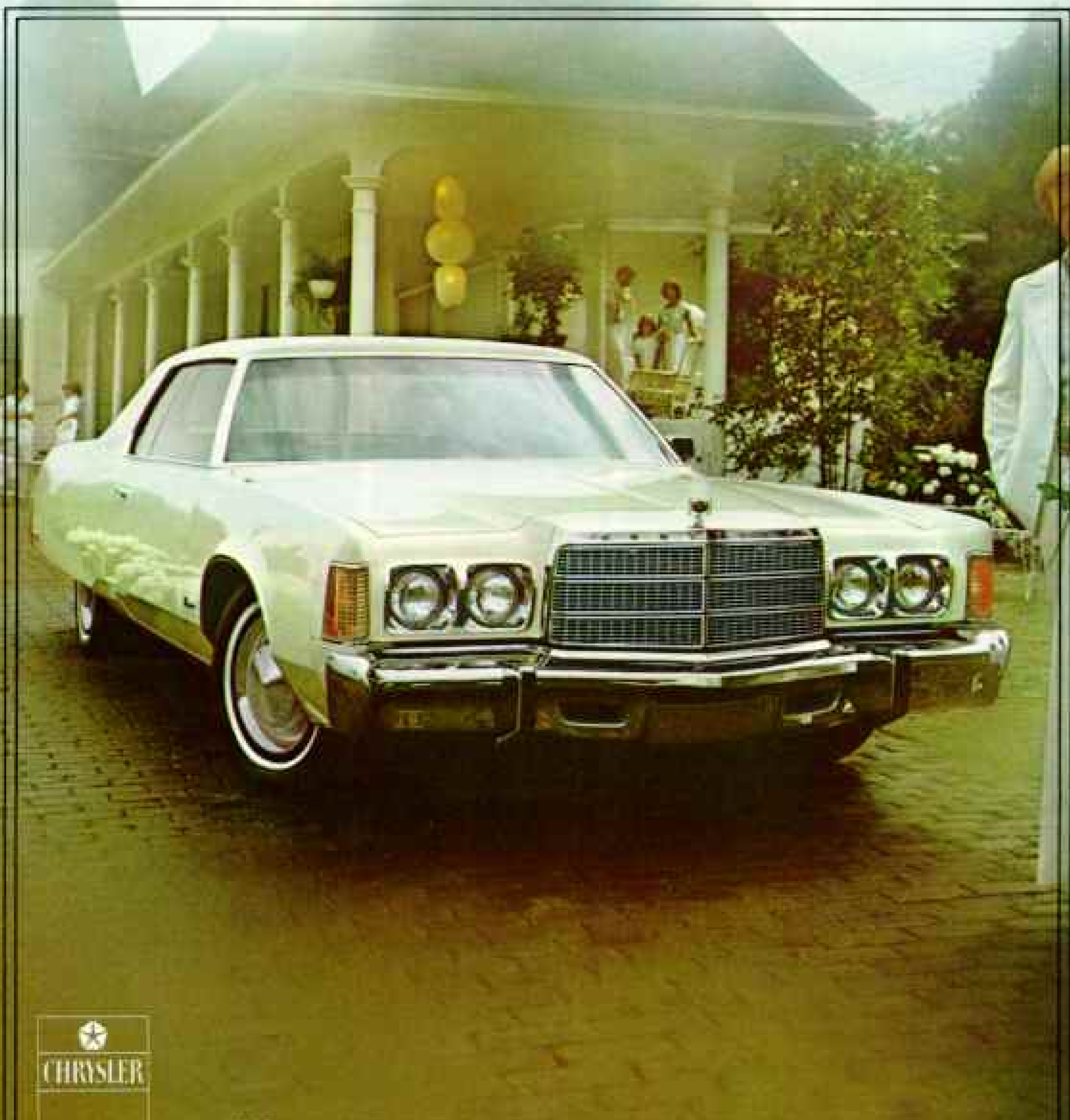
1977 Newport. $5374*. It's a lot of Chrysler for the money.

With Chrysler Newport for 1977 you get all the traditional values like size, comfort and handling, with the additional value of a most reasonable price.

Now at that price, consider all the standard features of Chrysler Newport: automatic transmission, power brakes, power steering, steel-belted radial tires. (In fact, the only options on the Chrysler Newport shown below are $46 fender skirts and $48 whitewall tires.)

Chrysler Newport also gives you the engine that thinks. The exclusive Lean Burn Engine.** It contains a small computer that constantly monitors engine conditions and adjusts ignition timing with split-second accuracy. The result is more responsive acceleration and performance.

Evaluate Newport for 1977; measure its worth in terms of its substantial standard features, its traditional size and all of its Chrysler qualities. Whether you lease or buy, you'll find it's impressive from top to bottom line. See your Chrysler-Plymouth dealer.



When a car makes you feel good about its looks, that's styling.

When a car makes you feel good about yourself, that's character.

Monte Carlo.
Personal. Original. Affordable.

Chevrolet

There are places where you can feel more alive than anywhere else in the world.

Where you can spend days alone together on your own pure white sand beach. And spend your nights eating in gourmet restaurants and dancing to native entertainment.

Where you can water-ski, fish for the really big ones or just play around in a beautiful, crystal-clear turquoise sea.

Where you can go shopping for exotic crafts in the native straw markets.

And where the people are as warm as the sunshine.

The places are Nassau/Paradise Island, Freeport/Lucaya and the easygoing Out Islands of The Bahamas.

Come and see how beautiful a vacation can be. For reservations or our colorful, informative tour brochure, see your Travel Agent. Or call us toll free at 800-327-0787. In Florida call 800-432-5594. In Dade County 443-3821.

It's all in The Bahamas. And it's better in The Bahamas.

BAHAMAS

Nassau/Paradise Island Freeport/Lucaya The Out Islands

CHANGE OF ADDRESS?

ATTACH YOUR NATIONAL GEOGRAPHIC LABEL HERE, print new address below, clip and mail to National Geographic Society, Washington, D.C. 20036. (Have a question about your magazine? Attach label to this form, and clip to your letter.)

NAME ______

NEW ADDRESS ______

CITY ______ STATE ______ ZIP CODE ______

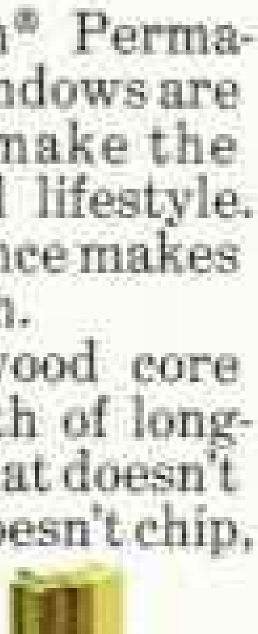
Andersen® Perma-Shield®

Traditional beauty for easy living.

Neat, trim Andersen® Perma-Shield® Casement Windows are a beautiful way to make the most of a traditional lifestyle.

Their low maintenance makes them easy to live with.

For above their wood core lies an exterior sheath of long-life rigid vinyl. One that doesn't rust, pit or corrode. Doesn't chip, flake, peel or blister.



And Andersen's special wood treatment with a water-repellent preservative helps resist warping, decay and insect attack.

It's this use of wood (a natural insulator) in Andersen's snug design which helps make Perma-Shield Casement Windows easy on your heating and cooling bills.

And easy on you, too.

Insist on beautiful Andersen Perma-Shield Casement Windows. In classic white, or our earthy hued, Terratone.

For more details, see your Andersen dealer. He's in the Yellow Pages under "Windows." Or send coupon.

To: Andersen Corp., Box 12, Bayport MN 55003.

Please send me more information about Andersen Windows and Gliding Doors

I plan to ☐ Build ☐ Remodel

Name

Address

City

State Zip

The beautiful way to save fuel.®

Andersen Windowalls®


She says I never give her flowers.
A diamond is forever.
To give you an idea of diamond values, the piece shown is available for about $1350.
Your jeweler can show you other fine diamond jewelry starting at about $200. De Beers Consolidated Mines, Ltd.

The Ultimate Cooking Center: Microwave. Self-cleaning. Smoothtop.

Now with Vari-Cook® oven control for even greater cooking versatility.
The Litton Micromatic® double-oven microwave range, now with Vari-Cook oven control, makes it easier to bring out the best in microwave cooked foods. Simply change cooking speeds as you change foods: High, reheat, roast, simmer, warm, defrost or any speed in between. Set different speeds for different foods to bring out old-fashioned slow-cooked goodness, but at time and energy-saving microwave speeds.

Cooks four ways.
The ultimate cooking center gives you all the best ways to cook. Cook with microwave speed in the upper oven. Bake or broil in the lower conventional oven. Stir up something saucy on the smoothtop. Or prepare one dish or a complete meal using both ovens for a combination of conventional browning and microwave speed.

Good Housekeeping

Self-cleaning ease.
Save clean-up time, too. Litton Micromatics have a self-cleaning oven system that removes even the toughest baked-on stains. And a one-piece smoothtop that keeps spills from dripping away.

Completely convenient.
Everything about the Micromatic double-oven range is designed for your convenience. Vari-Cook oven control. Micro-Timer® digital control. Automatic oven timer. Special 8-inch "quick-heat" cooktop element. One-piece smoothtop. Safe push-to-turn infinite heat controls. Black glass see-thru oven doors. And closed-door smokeless broiling.

You'd expect it from Litton.
Because at Litton, innovation means better microwave cooking throughout our full line of energy-saving countertop ovens, combination and double-oven microwave ranges. Your Litton dealer can demonstrate how to save time and energy with all of them. For his name and address, call us now, toll free **(800) 328-7777.**

LITTON
Microwave Cooking

Litton... changing the way America Cooks.