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Tokyo

THE PEACEFUL EXPLOSION

By WILLIAM GRAVES

Photographs by WINFIELD PARKS

Both National Geographic Staff

THE YOUNG JAPANESE newspaperman was full of facts and eager to help.

"Tokyo," he said, producing a small black notebook and opening it on our table in the teashop, "is now world's *largest* city—10½ million people."

I nodded. "Yes, I know. The guidebooks mention that. I've made a note of it."

My friend turned a page. "Tokyo has 8,488 bridges, mostly stone or concrete," he said.

"I'm happy to hear it," I answered. "The guidebooks missed that one. What else have you got in your notes?"

My friend turned another page. "People of Tokyo on an average day"—he took a breath—"eat 6 million pounds of rice, 3.5 million pounds of fish, read 21 different newspapers, buy 6 million train tickets, increase population by 460 persons, commit 641 crimes." He paused. "And have 25 fires and three earthquakes."

"That's quite a full day for one city," I said. He shook his head.

"Tokyo is not a city. Tokyo"—he searched for the word—"Tokyo is an explosion."

At the time, my newspaper friend's remark seemed farfetched. But then, I had only just arrived in Tokyo. By the end of a week it had the ring of truth to it, and after a month it seemed almost an understatement. Tokyo is not one but half a dozen explosions—an explosion of people, of wealth, of knowledge, of skills, of confidence, and above all, an explosion of human energy.

Size Cripples World's Largest City

The explosions naturally begin with people. Into 446 square miles, the capital of Japan today packs a population greater than Sweden's and only slightly smaller than Australia's. To this the city adds 168,000 new residents a year—more than the population of Atlantic City, New Jersey. The result is a case of near-strangulation that has Tokyoites worried.

"Just as the mammoth died out and the whale took to the depths," an editor told me, "so Tokyo will go unless we do something to stop it. Our size is our greatest enemy."

Certainly Tokyo's size in terms of people is

The author first visited Japan as a boy in the 1930's. He came back with the U. S. Navy's Amphibious Forces in World War II and later returned as a Foreign Service Officer assigned to Japan.

fearful when seen from a railroad station. One morning I took an electric train to Shinjuku Station, one of the city's main commuter terminals, which handles two million passengers a day. The overloaded cars were bad enough—husky attendants stood by the doors, shoehorning commuters into the coaches at three times their normal capacity (opposite)—but the platforms were even worse. They resembled the flumes of some giant dam, funneling a vast and irresistible flood that seemed to have no end.

After an hour, however, the crowd thinned out. It was then that I saw the shoes. They stood in a row, two dozen or more—unmatched high heels, oxfords, and a wooden clog or two.

A platform guard saw me and bowed.

"They will be back," he said in Japanese.

"Dare?" I asked. "Who will?"

"The owners of the shoes."

"Where have they gone?"

"To the next station—perhaps the one beyond." He sighed. "When a *tsunami*—a great human wave like that one—happens, the shoes begin to tear off. One cannot reach down or one would never come up. The owners are swept onto the trains. They get off when they can, after a stop or two, and come back. Meanwhile, we collect the shoes for them." He shook his head. "It is one of the prices for living in Tokyo."

Japanese Capital Welcomes the World to the Olympics

Whatever the price for living in Tokyo, its people seem happy to pay it. Everybody agrees that the city's best hope is for millions of residents to move out and form satellite towns around the capital. The trouble lies in finding volunteers.

"I would be the first to go," a restaurant owner assured me, "but then who would feed all these people?" The answer, of course, is that Tokyo's 38,248 other restaurants would feed them, but I didn't say so. I was talking to a man who loves his city.

Tokyo is not easy to love at first sight. In daylight, from the air, it resembles an enormous coffee stain, blotting the green velvet of the surrounding farm country. Seen from the ground, it lies blurred under layers of smog—a city wrapped in soiled cotton wool.

At night, however, Tokyo bursts through its somber wrapping. Then the city is aflame with neon, its low hills pulsing like great beds of coals, with crimsons, lavenders, greens, and golds of flashing electric signs announcing nightclubs, coffee bars, truck tires, television sets, cameras—everything that Tokyo owns or makes in some 57,000 factories.

In the blackness above, seemingly too high to belong to any structure, winks the aircraft-warning light of Tokyo Tower, the 1,092-foot-high radio and television broadcasting spire that has become the symbol of the city (page 448). Today Tokyo has still another symbol, one that is splashed on everything from billboards to cigarette packages—in short, on almost any flat surface. The symbol consists of five brightly colored rings linked in a chain—the emblem of the Olympics.

There is no escaping the fact that Tokyo has been chosen as host for the 1964 games. The Japanese won't let anyone escape it. I heard about it first from the pretty Japanese stewardess on my transpacific

"*Sumimasen*—very sorry. . . ." Railway guards in a Tokyo station pack rush-hour cars to bursting with hapless commuters. Skyrocketing population threatens to cripple the Japanese capital; even now its 10,500,000 residents make it the world's largest city. Long-suffering Tokyoites joke grimly about their city's "crush hour." Miraculously, scenes such as this morning jam at the Shinjuku Station produce few injuries.

jet almost before the wheels were up at San Francisco, and I heard it from my seatmate, a Tokyo businessman, over a cup of coffee near Honolulu. I was reminded once more at Tokyo International Airport by the huge luminous sign bearing the Olympic rings with the words, "Tokyo—1964," and by the customs inspector, who with practiced ease managed to work the subject in with a question about my bags.

When it came the turn of the taxi driver on the ride into Tokyo, I had had enough for one day. "Sir," he began, "Olympic. . . ."

I put my foot down. "I've heard all about it," I said. "That's why I'm here, to write a story about Tokyo and its plans for the Olympics. I've read all the pamphlets and seen all the pictures. Could we just forget the Olympics for a minute?"

There was an aggrieved silence from the front seat, and I was suddenly sorry. "Excuse me," I said, "it's been a long day. What were you going to say?"

He turned apologetically. "Sir, Olympic Highway coming soon—need 100 yen for toll."

Tokyo's Two-billion-dollar New Look

At 100 yen—roughly 28 cents—the Olympic Highway is a bargain. Completed this year just in time for the games, the elevated expressway leapfrogs Tokyo's vast outer belt of suburbs and delivers visitors to the heart of the city (map, page 452). Like many other improvements inspired by the Olympics, the highway was long overdue. The Olympics, in fact, have launched Japan's capital city upon hundreds of new building projects.

"When the Olympic flame lights the great caldron in Tokyo's National Stadium on October 10," a city official told me proudly, "Tokyo will have spent 694 billion yen—almost two billion American dollars—getting ready.

"Of course," he added quickly, "that is not all just for the Olympics. In time we would have built many of the projects—new highways, parks, buildings, stadiums—anyway."

The best place to watch Tokyo spending its millions is still along the Ginza. My first night in the city I took a walk through the great shopping and amusement district whose name, appropriately, means "silver foundry." It refers to the old mint that stood where now great tides of shoppers, moviegoers, peddlers, delivery boys, waitresses, nightclub barkers, noodle vendors—seemingly half of Tokyo—eddy and swirl along the streets.

Twenty-foot Owl Sells Gasoline

Above the human tide there pulses an endlessly shifting aurora—the Ginza's famed neon signs. Here a giant fountain of light drenches sidewalk throngs with a tumbling cascade. Beyond, the acre-size wall of a department store glows with a dozen eerie colors, while higher still an enormous whirling globe sweeps the night sky with mirrors flashing from its equator. Ninety-two feet above an intersection, a full-size Japanese sedan with headlights blazing revolves on a pedestal. Down the block, as if in wonder at it all, a 20-foot-high owl—the trademark for a gasoline—rolls startled eyes to heaven.

What the Ginza sells is hardly less dazzling. Window after window proclaims Japan's industrial magic: transistor tape recorders, matchbox-size radios, cultured pearls, raw silk by the acre, miniature television sets, the world's fastest motorcycles, and typewriters that print 2,500 different symbols.

Always on the Ginza there are the familiar sounds—the blare of loudspeakers pumping jazz from the doors of cabarets, the fretful chorus of automobile horns, cries of pitchmen, the mournful hoot of Japanese streetcars, the thunderous chime of pile driver against steel as Tokyo builds through the night. When at last the visitor turns down a darkened side street to the shelter of his Japanese inn, he has the feeling of escape from a mighty river at flood into some unbelievably quiet backwater.

Japanese have a weakness for statistics. The next day on the Ginza I had lunch with an old friend, Hiroshi Narita, an economist and editor for Japan's largest radio and television network, NHK. Nick, as I call him, took me to his favorite *tempura* restaurant, where we sat at a stone counter, devouring batter-fried shrimp and vegetables as fast as the chef could turn them out.

I mentioned what everyone notices first about Tokyo—its fantastic prosperity. Shop

Explosion in steel and masonry, Tokyo's vast downtown section changes skylines almost weekly with the rise of huge new buildings. Two giants under construction grow beside peppermint-striped Tokyo Tower, a 1,092-foot-high radio and television spire reminiscent of the Eiffel Tower in Paris. Record-conscious Japanese built the pylon some 40 feet higher than its French counterpart. In typhoon winds, the tower's tip sways nearly a yard. Distant freighters ride at anchor in Tokyo Harbor.

windows were full, crowds on the streets were handsomely dressed, and thousands on thousands of sleek Japanese cars choked the streets. Nick nodded happily.

"Even to Americans, the figures are staggering," he said. "In construction, Tokyo starts 800 major new buildings a year, more than two a day. The city's—and Japan's—economic growth rate runs about 10 percent a year, the highest in the world. In 1959 the rate rose to almost 18 percent; now people are talking about the recession." He smiled.

"We have a stock market, too, and it's doing just what yours is. Since 1949, for example, a share of Canon Camera Company stock has multiplied 865 times in value."

"What's behind it all?" I asked, trapping an elusive piece of shrimp with a chopstick.

"We are," Nick said simply. "The Japanese people. You'll get other answers—postwar aid, protective tariffs, new markets in Asia, and all of these things have helped. But basically the boom is built on Japanese brains, skill, and fantastic energy."

I've known Nick a long time, and I couldn't resist adding, "What about Japanese genius for imitation?" He only smiled.

"You're out of date," he said. "Yes, we Japanese copy other people's ideas—what country doesn't?—and we do a good job of it, too. But times are changing. In Tokyo today we have scientists and engineers from all over the world, studying Japanese inventions."

This was news to me. "Inventions like what?" I asked.

"Like Yumeno Chotokkyu, the 'Dream Su-

Tokyo at play invades Asakusa, a vast neon-trimmed amusement and shopping district that rivals the famed Ginza. Stalls sell everything from cameras to Buddhist funerary images. Advertisement beneath a merchant's stop sign offers bargains in suits.

Giant Roman candle, the tubular San-ai Department Store blazes in the Ginza; shoppers know it as the "Dream Center." Land here costs nearly $500 a square foot; say the Japanese, "A pound of Ginza clay is worth a pound of gold."

CENTRAL TOKYO

Kita Ku
Arakawa Ku
Taito Ku
Bunkyo Ku
Toshima Ku
Shinjuku Ku
Kanda
Chiyoda Ku
Chuo Ku
Minato Ku
Akasaka
Shibuya Ku
Shinagawa Ku
Sanya

RIKUGIEN GARDEN
YANAKA CEMETERY
UENO PARK
UENO LIBRARY
UENO ZOO
NATIONAL MUSEUM
FINE ART GALLERY
NATIONAL SCIENCE MUSEUM
NATIONAL MUSEUM OF WESTERN ART
FESTIVAL HALL
TOSHOGU SHRINE
TOKYO BASEBALL STADIUM
NAMIDABASHI
KOKUGIKAN SUMO ARENA
EARTHQUAKE MEMORIAL HALL
NICHIDAI HALL
Asakusa
ASAKUSA KANNON TEMPLE
THEATER
BOTANICAL GARDEN
TOKYO UNIVERSITY
KOISHIKAWA GORAKUEN
GOKOKUJI TEMPLE
TOSHIGAYA CEMETERY
KODOKAN JUDO HALL
KORAKUEN SPORTS CENTER
Olympic boxing and judo
KORAKUEN GARDEN
KANDA MYOJIN SHRINE
MISAKI SHRINE
NICOLAI CATHEDRAL
WASEDA UNIVERSITY
Olympic fencing
YASUKUNI SHRINE
IMPERIAL PALACE
METROPOLITAN GOVERNMENT OFFICE
HIBIYA PARK
IMPERIAL HOTEL
KABUKI-ZA THEATER
STOCK EXCHANGE
TOKYO STATION
SHINJUKU STATION
SHINJUKU GARDEN
AKASAKA DETACHED PALACE
YOGU PALACE
NATIONAL DIET
MINISTRY OF FOREIGN AFFAIRS
TANABE'S NIGHT CLUB
MEMORIAL PICTURE GALLERY
MEIJI SHRINE OUTER GARDEN
MEIJI OLYMPIC PARK
MEIJI BASEBALL STADIUM
MEIJI SHRINE TREASURE MUSEUM
NATIONAL STADIUM
Olympic gymnastics, soccer, track-and-field events, water polo
U.S. EMBASSY
HOTEL OKURA
ATAGO HILL
TOKYO TOWER
SHIBA PARK
ZOJOJI TEMPLE
SHIBA PALACE GARDEN
HAMA DETACHED PALACE GARDEN
CENTRAL WHOLESALE MARKET
TSUKIJI HONGANJI TEMPLE
MEIJI SHRINE
OLYMPIC VILLAGE
YOYOGI SPORTS CENTER
Olympic basketball, judo, swimming and diving
AOYAMA CEMETERY
NEZU ART MUSEUM
PRINCE ARISUGAWA MEMORIAL PARK
KEIO UNIVERSITY
SHIBUYA STATION
SENGAKUJI TEMPLE
NATIONAL PARK FOR NATURE STUDY
SHINAGAWA STATION
To Tokyo International Airport, 9 miles from the Imperial Palace grounds
TOKYO HARBOR
TOKYO BAY

Don Avenue Ku Ward ★ Site pictured
Railroads Subways Elevated railways

Heart of a giant, downtown Tokyo grew around a castle—the Imperial Palace. War and quakes razed early landmarks.

NATIONAL GEOGRAPHIC MAP
BY LISA KIKANDOU AND EUGENE M. SCHAEL

NATIONAL GEOGRAPHIC MAP BY ELIE SARKAS © N.G.S.

per Express,' to name one," Nick answered. I looked puzzled and he added, "It's an electric train that goes 160 miles an hour."

Nick exaggerates. Actually, the Dream Express runs only 158.7 miles an hour. I know, because I went for a speed run later at the invitation of Japan National Railways on the Express's test track southwest of Tokyo.

In one sense the Dream Express is a disappointment—the ride is so smooth that only the blur of landscape through the windows suggests the tremendous speed. What makes the train unique is its elaborate system of springs and shock absorbers, its automatic electronic brakes, and its rubber-cushioned rails that are welded rather than bolted together and laid on prestressed concrete ties.

Nick was right about the visiting engineers: On the test run that day there were railroad experts from the United States, Canada, India, and the Soviet Union, all putting questions to their beaming hosts and all filling notebooks with the replies.

Not every Japanese invention is so easily inspected. One morning I took a tour through the Canon Camera Company plant in south Tokyo, where the work is so delicate that technicians on the assembly line oil the cameras with hospital hypodermic needles.

We came to the huge lens-polishing room, where by a highly secret process the company mass-produces its famous Canon f 0.95, one of the world's fastest commercial lenses.

Our guide apologized for not taking us inside. The polishing room temperature was so delicately controlled, he said, that the heat from a single human body would throw it off. At that moment a technician in a white gown swept past us and went through the door. I gave our guide an injured look.

"What about him?" I asked. "Won't his body change the temperature?"

The guide hesitated, then inspiration came to his rescue. "*Chigaimasu.* Is different," he said with a smile. "Is Canon Company body."

From precision lenses I turned to one of Tokyo's heavier industries. With Mr. Atsushi Tamai I toured a shipyard in Yokohama belonging to Mitsubishi Heavy Industries, Ltd., a colossus of the Japanese economy.

Mr. Tamai, a Mitsubishi technical manager, walked with me through a 50,000-ton tanker under construction. Until recently, he explained, such a ship took nearly two years to build. Today, with the magic of prefabrication, Mitsubishi does it in seven months.

We passed a dry dock where the whaling factory ship *Kyokuyo Maru* lay up for repairs. She had returned from many months in North Pacific waters with a fleet that caught 1,000 whales. We walked among the timbers beneath her stern and gazed up at the cavernous opening in her transom through which whales are winched to be processed on board.

At last we entered the yard's engine-fitting shop, an enormous building the size of a blimp hangar. Near us in the gloom, I made out a solid-looking gray block as big as a two-story house. Men in coveralls were swarming over it, and I judged it to be some sort of engine test chamber.

"We build even bigger ones," Mr. Tamai was saying, "but this shows what our shop does. They are just starting it for a test run."

HI ENTACHROME BY WINFIELD PARKS © N.G.S.

"No women allowed" has been a rule of kabuki theater casting since a shogun, one of Japan's medieval rulers, banished its actresses. Men take their parts. Half-moon eyebrows and rosebud mouth accent the chalk-white face of Tomoemon, a kabuki "heroine."

I realized then that what I was looking at was no test chamber but a marine engine itself. Above the thunder of the huge diesel, Mr. Tamai explained that Mitsubishi was building it for a Philippine freighter and would install it later in the ship. The engine weighed about 400 tons.

I was astonished. "You mean you will pick up 400 tons of engine just like that?"

"Ah, no," Mr. Tamai answered apologetically, "I explain badly. Such an engine is too much for our cranes all at once. First we must take it to pieces, then we carry out the pieces and assemble them in the ship."

That sounded more like it. "How big are the pieces?" I asked.

"About 80 tons each," said Mr. Tamai.

Driving back along the Daiichi Keihin Highway, Tokyo's great economic and commercial jugular that reaches from the capital to the huge port of Yokohama, I was appalled at the traffic. It took us more than two hours to make the 25 miles and that, I learned later, was considered good time.

It is said that Tokyo has a traffic code, but that's an understatement. Actually it has two million codes—a different one for every driver on the street—or so it seems.

One day I called on the director of a large Tokyo driving school, a man of 55 whose company lends him a car to come to work in. I asked him if he minded driving it in Tokyo traffic, and he gave me a look of surprise.

"I wouldn't think of driving in this city," he said. "That is what I have instructors for—they take turns as my chauffeur."

The trouble with Tokyo from a driver's point of view—or any view, for that matter—is its lack of planning. Most great cities of the world have the same problem, but Tokyo has

Tokyo's concrete sinews, elevated expressways thread downtown sections jammed with new buildings. The city's election as 1964 Olympics host sped this project off the drawing board.

Evasive action lifts a pedestrian clear of the pavement in his dash for safety. Tokyo traffic-dodging risks are high: On the city's streets, a thousand die in a year.


八百屋
SCREEN
GLAMOUR
SCREEN
あなたの忘れ物はありました
"YOURS ユアーズ"と名づけました
東口アミューズメントセンターから
手ぶら遊びをした"おしゃれ用品"を
必ずこの店で返してください

Eastern Beauty Meets Western Fashion Beside a Sidewalk Telephone

Gone are wooden clogs and traditional kimono. Among Japanese young women, high heels and chic knee-length dresses are everyday attire. Tokyo's huge Ginza department stores tempt shoppers with top European designs. Copies in inexpensive Japanese cottons and rayons have all but driven classic styles from sight. Young Tokyo saves the conservative kimono and sashlike obi for ceremonial days or family occasions. Sign beneath American fashion magazines advertises a gift shop called "Yours."

America-bound, a gleaming new truck rolls through the assembly line of the Nissan Motor Company automotive works between Tokyo and Yokohama. Of more than a million Japanese cars and trucks produced yearly, Nissan makes one in five. Bright-red paint brands this vehicle an export; Japan reserves the color for its fire engines.

City official Shoji Koyama headed the Tokyo Metropolitan Assembly in 1963, sharing administration of the capital with a governor, Ryotaro Azuma. Portraits of past Assembly presidents line a wall of his chamber in the Metropolitan Government Office. Mr. Koyama now serves in the Diet, Japan's national legislature.

Though it includes almost 11 percent of Japan's population, Tokyo until recently had less than 5 percent representation in the Diet. A revision in apportionment laws has raised the percentage to 7.

Miniature television undergoes inspection at Sony Corporation, Tokyo's astronomically successful postwar electronics manufacturer. With 15 million sets in operation, Japan ranks second only to the United States in television ownership.

Wall-to-wall carpet of white shirts hides the floor of Tokyo's Stock Exchange, barometer of Japan's explosive postwar growth. Some stocks sell for 800 times their 1950 values.

"*Urite*—**sell!**" says the outstretched arm of a brokerage assistant. Same signal with palm turned inward advises, "*Kaite*—buy!"

less excuse for it. Twice in the past 40 years, because of earthquake and war, it has almost ceased to be a city. Twice, miraculously, it has been reborn.

Tokyo began in the way of many Japanese cities, with a war lord's castle. A 15th-century feudal lord named Dokan Ota built his fortress in 1457 near the junction of the Sumida River and Tokyo Bay, on the southeast coast of the island of Honshu. A town called Edo, or "door of the bay," grew up around the castle, and in 1603—just four years before Jamestown was founded—the Japanese shogun, or military dictator, Ieyasu Tokugawa, declared Edo his capital. Later the name changed to Tokyo, meaning simply "Eastern Capital."

Tokyo's history is punctuated with disaster. Catastrophic fires swept the city several times, two of the worst ones in 1657 and 1772. A century and a half later, on a bright September morning in 1923, indescribable tragedy struck. In a series of massive jackhammer shocks, a giant earthquake shattered the city, spreading fires and taking 59,000 lives.

Yet Tokyo revived, and by 1941 the capital of Japan had become one of the world's great metropolises, with 7,250,000 people. What followed was worse than any earthquake—World War II overtook the city. Four years later the Eastern Capital lay a honeycomb of ruin—more than two-thirds destroyed, its population reduced to 3,500,000.

Few Reminders of Wartime Left

Miraculously enough, hardly a battle scar remains today. Only a few months ago one of the best-known reminders of World War II, a pock-marked bomb shelter next door to the glass-and-steel Ministry of Foreign Affairs, came down at last. Greater Tokyo once more

EXTACHROME © NATIONAL GEOGRAPHIC SOCIETY

embraces eight urban counties, 24 towns, and 15 villages—all in addition to the capital's 23 huge wards, known as *ku*.

In the minds of most Japanese, Tokyo's postwar rebirth was a haphazard affair.

"We had the perfect opportunity to plan a completely new city," one architect told me sadly. "Instead, we followed the same old pattern—chaos, confusion, and congestion."

Happily for Tokyo, its postwar architecture is a different story altogether. The city's modern downtown buildings are neither confused nor chaotic, but functional and often beautiful. Moreover, they are built by men determined that no earthquake shall ever again bludgeon their city to death.

I walked through one of the newest buildings, the luxurious Hotel Okura, with Goro Yamasaki, an assistant manager. We inspected a cross section of the 550 rooms, which range from $158-a-day suites to attractive singles at eight dollars. The Okura's beautiful interior—particularly its halls and banquet and reception rooms—subtly blended Western themes with Japanese simplicity. It took me some time to realize that a good part of the hotel was underground. I asked why.

"Until recently the law insisted on it," Mr. Yamasaki replied. "Because of the danger from earthquakes, no building in Tokyo could be more than 31 meters high—roughly 100 feet—or stand too close to another building. The law has been relaxed now, but it was still in force when the Okura was built." He smiled. "Fortunately, we are on a hillside, so we dug six more stories into the slope."

I asked if the Okura was considered earthquake proof. Would it, for example, withstand a massive shock, such as the one that struck Tokyo in 1923?

"Yes, it would," said Mr. Yamasaki hopefully, "but if you want an expert opinion, you should see Professor Kawasumi at Tokyo University. Earthquakes are his business."

Earthquakes are not only Professor Hirosi Kawasumi's business; they are clearly his passion in life. I called on him in his small office at Tokyo University's Earthquake Research Institute, the famous seismic laboratory founded two years after the disastrous quake of 1923. He sat me down beside his desk and began describing the great earthquakes of history as familiarly as if he had been through them all.

Map Forecasts the City's Agony in a Future Quake

Tokyo has an average of some 1,000 earthquakes a year, the professor told me, but fewer than 50 can be felt by humans, and only the very rare one does any damage. I asked what present-day Tokyo's chances were in a major earthquake.

"They are excellent," Professor Kawasumi answered without hesitation. "That is, assuming that the shock does not occur dead center beneath the city; nothing man-made can stand a blow like that. But a 1923-type earthquake, where the center is some miles from the city? Yes, our new buildings would stand it. They are built on a different principle from your Frank Lloyd Wright's famous Imperial Hotel. The Imperial was designed to float on a series of slabs, whereas our new buildings are on firm foundations. Those foundations are sunk so deep into the earth we believe they are almost shock proof. The people inside the buildings would survive anything but a direct blow."

I asked what the casualty rate might be in a severe earthquake. Professor Kawasumi thought for a moment.

"In summer or in winter?" he asked at last.

I said I didn't see the difference, and he nodded patiently.

"Westerners imagine our earthquakes as a terrible trembling of the ground, with walls collapsing, bodies being crushed, and then a sudden silence," he said. "Unfortunately, there is more to an earthquake than that."

He picked up a box of matches, struck one, and held it up.

"Here is the real killer," he said solemnly. "The fire that follows earthquakes. In the shock of 1923, the tremors killed only 2,000 people; fire took the other 57,000 lives." He blew out the match. "That is why I ask if your imaginary earthquake

Mirror reflects the gaudy glare of a subterranean cafe on the Ginza. The Albion, a favorite of foreign visitors, features frantic jazz blared over loudspeakers, with house lights that blink eerily to the rhythm. Waitresses in white-satin toreador pants dance, rather than walk, about their chores.

Hot dogs and baseball: A night game in the stadium at Korakuen Sports Center pits the Yomiuri Giants of Tokyo against Taiyo Whales of Kawasaki. *Beisu-boru*, which came to Japan in 1873, proved an instant hit. When the first imported American ball wore out, students held an autopsy and fashioned a duplicate, using a boot sole for the core and unraveling socks for yarn.

Sparks from a welder's torch shower a streetcar track. To spare daytime traffic, repair crews work from dusk to dawn.

is in winter or in summer. In winter, Tokyo has hundreds of thousands of heating fires. The risks in an earthquake then are much greater."

I chose winter for my imaginary earthquake, and for an answer Professor Kawasumi pulled out a map. At first I couldn't make much sense out of it, and then suddenly I realized what it was: a chart of a future earthquake and the damage it would do to Tokyo. Certain areas of the city were heavily shaded in red, some were lightly shaded, and still others were untouched. The shading obviously denoted fire, and the zones were very carefully drawn. It was like seeing the casualty list the day before a battle.

The map showed the central areas of Tokyo—the downtown sections with most of the new construction—completely unshaded. Eastward toward the Sumida River, however, in the poorer sections of the city, the red patches grew until they dominated everything. The contrast was striking and somehow pathetic.

"It cannot be helped," Professor Kawasumi explained. "Tokyo has one of the finest fire departments in the world—our engines can reach any spot in the city within a matter of minutes. But among older buildings and wood-and-paper homes, minutes can mean the difference between a house and a funeral pyre. We still could not save all of the city."

He swept his hand over the heavier red sections. "Each year we are cutting these down in size, with more and newer fire-fighting equipment, fire-prevention campaigns, and safer buildings. We have come a long way from the 'fire-looking' towers that you still see in some neighborhoods. Perhaps one day we can throw our red pencil away."

Courtesy Cloaks Japan's Olympic Hopes

One of the areas of Tokyo that are safe from Professor Kawasumi's red pencil is the section near Meiji Shrine known as Meiji Olympic Park. The park has relatively few trees, and the only buildings are concrete gymnasiums and sports centers. The largest structure is the huge National Stadium, main arena for the 1964 Olympic Games (pages 512-13).

I visited the stadium one misty April morning with Goro Nakasone, an old friend who is now with the Organizing Committee for the XVIII Olympiad. Sizable as the stadium originally was—it seated 55,000 spectators—the committee planned to enlarge it to hold 85,000, and still feared it would be embarrassingly small for the games.

They had a point. During the remodeling, someone realized that the seat marks on the benches—the spaces originally designed for slender Japanese—would never do for hefty Westerners. The committee ordered the benches re-marked—and 13,000 Olympic seats suddenly disappeared into thin air.

The stadium was ghostly quiet when Mr. Nakasone led me through the dim corridors under the stands to a dugout beside the field. In the early light I could

Lonely Coast of Hachijo Jima Suggests a Fragile Japanese Print

Legally part of Tokyo, remote Hachijo Island lies in the Pacific, 175 miles south of the capital. Islanders, numbering about 12,250, earn a bare living from fishing, farming, and a small tourist industry. Ocean swells forever batter Hachijo's south coast, wrapping it in fine spray.

Bullfight without a matador, a Hachijo Jima attraction matches bulls in a butting contest. Handlers manage the animals so as to give the impression of danger while protecting them from injury.

make out the great ceremonial caldron that will hold the Olympic flame when it arrives by air and by runner from Olympia.

High up in the gray mist, a welder's torch winked with the faint glitter of a star atop a huge floodlight tower above the stands.

Standing here, where for two weeks in mid-October the athletes of more than 100 nations would await their turns on the field, I could almost hear the thunder of applause from the stands as a gold-medal champion faced the crowd to the strains of his national anthem. I hoped that more than once the anthem would be Japanese.

So, I am sure, does Shigeru Yosano, though he is far too polite to admit it. Mr. Yosano is Secretary General of Japan's Organizing Committee for the Games of the XVIII Olympiad and a former Japanese Ambassador to Spain. I called on him at the committee's offices. After his secretary had brought the inevitable cups of green tea, I raised the question of Japan's Olympic prospects. Mr. Yosano was all Japanese modesty.

"We are strong in swimming," he began hopefully, then sighed. "But you Americans and the Australians are extremely good. We have some hope in gymnastics and in weight lifting, however, and it is possible we may have a small success in shooting and sailing."

He frowned. "Women's volleyball looks promising—but one never knows. And once we were not bad in equestrian events."

I remarked that for the first time in Olympic history, judo was on the official program. Surely Japan would win that?

"Sa!" said Mr. Yosano, using the favorite Japanese expression for doubt or anxiety. "Perhaps we have a chance—but it is only a very tiny one."

After making allowances for Japanese tact and modesty, I interpreted Mr. Yosano's words as follows:

Japan has excellent prospects for victories in swimming, gymnastics, weight lifting, and wrestling. And if she doesn't take a gold medal in judo, there will be some very unhappy Japanese.

Ships May Serve as Hotels

We turned to the preparations that Tokyo was making for the games. Mr. Yosano said the city estimated it would have 30,000 foreign guests each day during the two weeks of the Olympics—7,500 athletes and officials, 1,500 newsmen, and more than 20,000 spectators from abroad. I asked where Tokyo would put them all.

"The athletes will go in Olympic Village," Mr. Yosano said. "If we run out of housing and hotel rooms, we plan to use passenger ships anchored in Tokyo Bay as floating hotels during the games."

It sounded ideal, combining the best features of the Olympics and a luxury cruise. I asked what else would be new at the games.

"We think our electronic scoring and communications system will be a great improvement over past Olympics," Mr. Yosano said. "It will monitor as many as 25 events simultaneously and announce the results faster than has ever been done before.

"And," he added hesitantly, "we Japanese hope the world will remember the 1964 Olympics not only for the gold medals and for the excitement, but for the welcome everyone will receive here. Japan lost its chance to be Olympic host in 1940 because of the war. Now we hope to make up for that."

I bowed goodbye to Mr. Yosano, and afterward, Mr. Nakasone, my Olympic stadium guide, took me on a tour of a dozen stadiums, gymnasiums, swimming pools, sports centers, and a beautiful equestrian park—each facility either recently built or thoroughly remodeled for the games. By the end of the day I had a fair idea of where Tokyo's Olympic millions were going.

Sad to say, Japan's most colorful sport has no place on the Olympic program. *Sumo* wrestling is too specialized an art—its champions normally weigh more than 300 pounds—for the sport to catch on in other countries.

Sumo is both colorful and brutal, though rules are more humane than they once were. Referees declare a defeat when one wrestler as much as touches a knee to the ground or steps out of the ring, but tournament combatants still run the risk of concussion, dislocations, and fractured bones.

I watched the practice matches one morning in a sumo "house," or training camp, not far from the Sumida River. The wrestlers, fearful-looking giants dressed only in thick G-strings, their hair bound up in the sumo fighter's topknot, took turns battling in a ring of hard-packed earth (page 481). The winner of one match faced all challengers, one after

Stately chorus line strikes a graceful pose at Shichi-go-san Cafe in the Asakusa amusement district. Low-priced restaurants in this area serve as an inexpensive substitute for geisha houses, where dinner, rice wine, classical dancing, and song can cost $100 a person. These dancers, who double as waitresses, perform beneath a canopy of artificial maple leaves.

another, until a better man or exhaustion brought him down.

On entering the ring, each man threw a handful of salt ahead of him to purify the ground, and each stamped his feet to banish evil spirits. Finally, after endless crouching and shifting of weight, came the charge. Two bodies, weighing more than a quarter of a ton between them, met with a shock that jarred the building. It was like watching a shoving match between two bulldozers.

After practice I met the *yokozuna*, or grand champion of sumo, a young man of 23 whose professional title is Taiho, meaning roughly "giant bird." Taiho earns a reported $50,000 a year and receives countless proposals of marriage from adoring female fans.

As I left Taiho's house with a Japanese friend, I noticed two pretty teen-age girls standing some distance down the street, their eyes fixed on the champion's doorway.

As we passed, I heard one say breathlessly to the other, "Perhaps they have seen him?"

But her friend shook her head.

"No," she answered with conviction, "if they had, it would show in their faces."

"Bridge of Tears" Led to Headsman's Ax

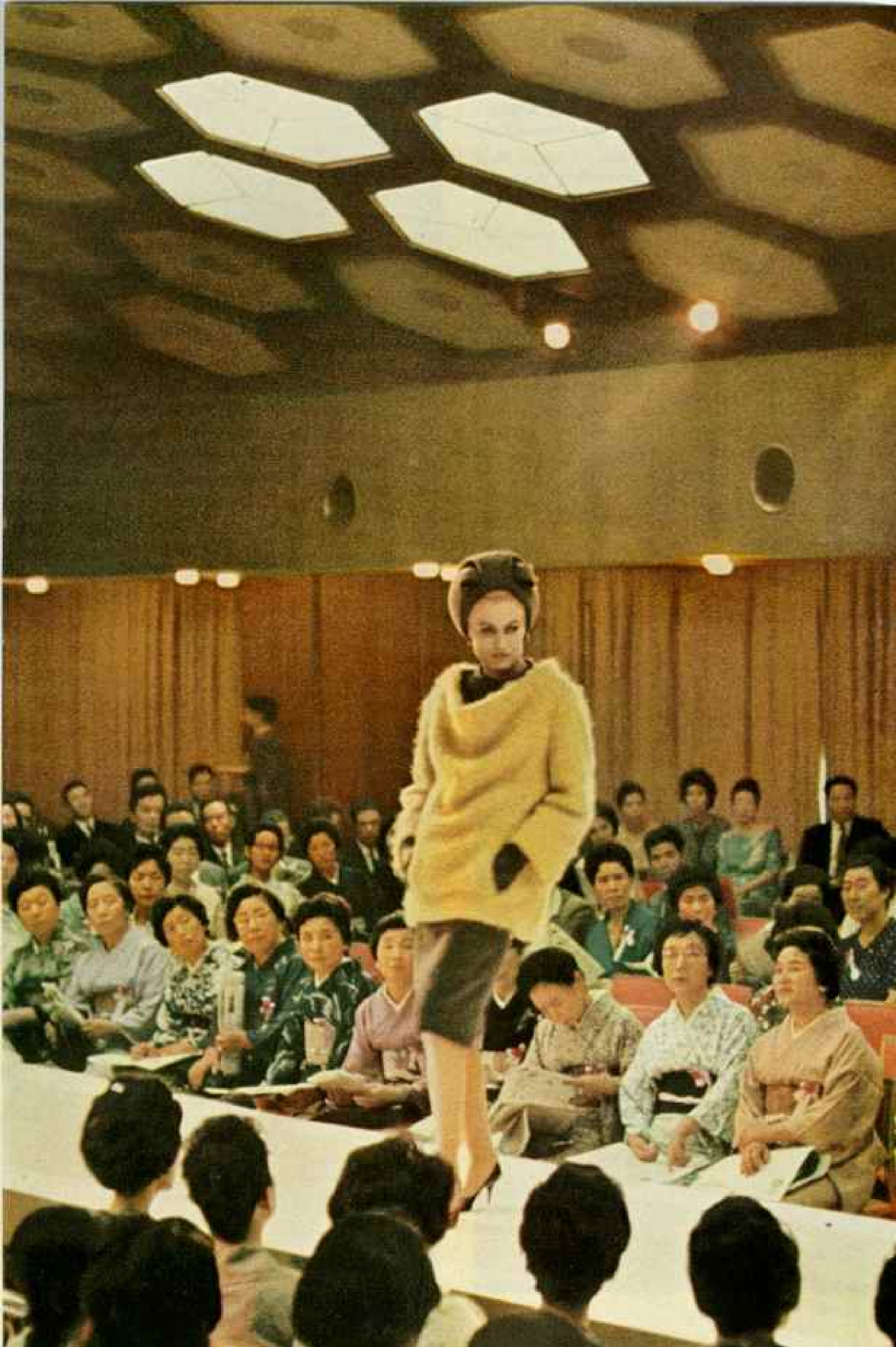
Not far from the sumo wrestlers' camp lies a section of Tokyo that no one talks much about. Its name is rare on tourist maps, and sightseeing guides never mention it. Yet the Sanya district is as much a part of Tokyo as the city's multimillion-dollar hotels and office buildings or its broad expressways and manicured parks. Sanya, in fact, is where some of the city's newest residents—the immigrants from farms and other cities—begin their lives in Tokyo. It is also one of the most heavily red-penciled sections on Professor Kawasumi's earthquake map.

I walked through Sanya one morning with a Japanese friend, Ikumi Hoshino. We entered the district by way of Namidabashi —"The Bridge of Tears"—named more than a century ago for condemned prisoners who crossed it on their way to meet the headsman at the city's execution grounds.

Beyond Namidabashi we came to rows of flophouses, one of which—"The House of Hope"—offered a night's lodging for 20 or 30 yen, five to eight cents. Lodging, in this case, Ikumi explained, meant a thin mat about six feet long by three feet wide, spread on the floor of a large dormitory with perhaps 100 other mats. The lodgers might be part-time construction workers or those so desperate for money that they sold their blood to mobile units cruising the district.

Fifteen minutes' walk beyond Sanya, we came to another section even more forlorn. Here the narrow streets were almost empty, and there was an eerie silence among the houses. I saw only one small crowd of adults and children. They stood spellbound at the door of a neighborhood slaughterhouse—the district's grim version of a circus.

High fashion meets the kimono at a Tokyo style show. Though still partial to kimono and sandal-like *zori*, older women as well as the young flock to Western-style salons. Paris designer Guy Laroche and his imported models stage this display in one of Tokyo's new luxury hotels.



Green Refuge of Meiji Shrine Offers Escape From the Roaring City

A slab of dark jade set in the heart of Tokyo, Meiji Shrine and the vast Inner Garden draw thousands daily to stroll through the 180 acres of wooded retreat. Devout pilgrims, standing reverently in the Outer Prayer Hall, bow and clap hands to summon ancestral gods.

The shrine commemorates the Emperor Meiji and his Empress Shoken. Reigning from 1868 to 1912, Meiji symbolizes Japan's turn from feudal militarism and first experiments with democracy.

This aerial view takes in the huge wooden *torii*, the stylized gate that distinguishes a Shinto shrine from a Buddhist temple. Beyond the first courtyard stands the copper-roofed main gate. Seedlings contributed from all parts of the nation started the Inner Garden forest.

Young Tokyo pilgrims on tour from their school pause beneath the shrine's intricately joined eaves.

The worst sight of all was what Ikumi called a *bataya buraku*, or "ragpickers' village," a jumble of wretched shoulder-high hovels built of rusted sheet metal and old packing crates, the chinks in the walls stuffed with rags and paper. Mountains of other rags and papers stood everywhere, and when the wind blew, it sent flurries of trash whispering among tin walls that hummed like a dozen unmatched tuning forks.

Walking past the rows of shacks, my arms close to my sides for fear of knocking loose a wall or a roof-board, I heard only an occasional low murmur of voices—old people left behind from the day's scavenging in the city. My impression was one of unrelieved misery until I rounded one hut and almost stepped in a garden.

It was a miniature plot no larger than a doormat, but the gardener knew his business. He or she had tucked it away beside a low stone wall where it got the most shelter and sunlight. There was a *bonsai* tree—in this case a dwarf evergreen—a chrysanthemum plant or two, and a morning glory vine, all neatly arranged and tended. For a moment misery seemed far away, and there was only the serenity of a Japanese garden.

Like immense cinder blocks, low-cost apartment houses rise amid factories and oil-storage tanks. *Danchi,* as Tokyoites call the developments, ease the crushing pressure of Tokyo's housing shortage. Families with moderate incomes may rent a bedroom, kitchen, and living room for $20 a month.

Husband enjoys his ease, just as his father did, while wife clears the dishes in their three-room *apato.* Tokyoites call them and their neighbors *danchi zoku*—"apartment-house tribe."

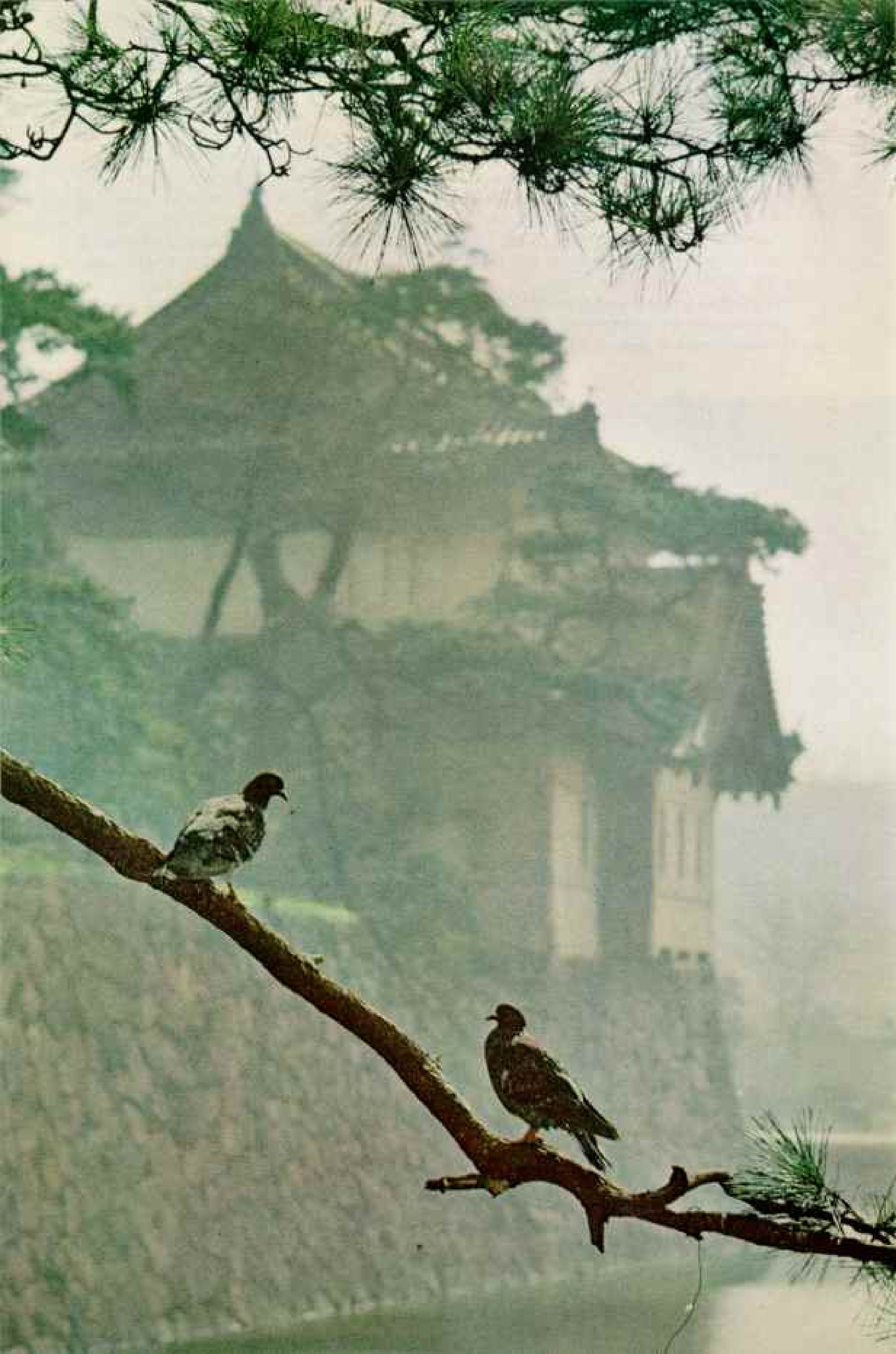
I thought of the ragpickers' village and Professor Kawasumi's map one night not long afterward as I sat in a small downtown coffee bar. I had joined a group of university students who were discussing a recent election. As we sat over our coffee, I felt a slight nudge at my shoulder and suddenly realized that the wall was moving. I glanced down at the table in time to see the coffee in my cup tilt over the rim, and then the room was rocking gently in an earthquake.

Conversation paused, and from the corner the jukebox gave an agonized squawk as the needle shot across a record. Then the rocking subsided. The jukebox, as if built to take earthquakes in its stride, quietly selected another record.

Our conversation returned to politics, and an argument developed over whether democracy had taken root in Japan. The majority opinion held that it had, but an engineering student from Tokyo University disagreed.

"Our politicians are dishonest," he argued. "After every election the police arrest someone for fraud. That is not democracy."

I remarked that no system was free of abuses, that we sometimes had similar problems in the United States. But that didn't



mean we weren't a democracy; it seemed to me it only meant that democracies had to keep their eyes open.*

"Ah," said the engineer, "but it is different for you Americans. Your democracy is old and strong, like a tall *matsu no ki*, a pine tree. Japanese democracy is still only a seedling—and my country is a land of typhoons."

It was a disturbing thought, and I mentioned it later to a Tokyo philosophy professor.

"In Japan," he said, "we have a proverb, 'The frog in the well knows nothing of the ocean.' Our young people are still a bit like the frog. They know little of the world that lies beyond Japan.

"Make no mistake, young Japanese today are fanatically devoted to democracy—you Americans did your work well. But that is the trouble; they expect democracy to be perfect. When something goes wrong, it must be the fault of the Japanese people. Democracy has no faults." The professor smiled reassuringly.

"Don't worry about your young engineer. He will land on his feet in time. The real frogs in the well are the Japanese Communists. Talk to some left-wing members of Zengakuren, one of our Japanese student federations. You'll feel better about your engineer."

Zengakuren's left wing, I knew, had helped lead the Tokyo riots that erupted in 1960 over the revision of the U. S.-Japan security treaty and caused cancellation of President Eisenhower's visit to Japan.† In the crackdown that followed, some of Tokyo's young Communists became publicity shy, but at last, through a friend connected with Japanese youth movements, I managed to meet three leaders of the Zengakuren far left. We found them in a tiny upstairs room of a tenement in Chiyoda Ku, stamping and addressing copies of a mimeographed newsletter.

We moved the meeting to a dimly lit restaurant just off Jinbo Cho in Kanda, the booksellers' quarter near Tokyo University.

All three were mild-mannered, pleasant-looking young men in their early 20's, and all were students at Tokyo University. When the coffee arrived, I brought up the subject of the riots, and their reluctance suddenly vanished. All three proudly admitted that

*See "Japan Tries Freedom's Road," by Frederick G. Vosburgh, NATIONAL GEOGRAPHIC, May, 1950.

†See "Japan, the Exquisite Enigma," by Franc Shor, NATIONAL GEOGRAPHIC, December, 1963.

Morning mist blurs the Imperial Palace wall and massive gate tower.

Imperial family, the Emperor Hirohito and Empress Nagako attend World War II memorial rites at Hibiya Park. A brilliant marine biologist as well as ceremonial leader of Japan's millions, the Emperor maintains his own research laboratory on the palace grounds. His elder son, Crown Prince Akihito, specializes in fish genetics, a vital field to Japan, with the world's largest annual salt-water catch.

they had taken part in the violence and insisted that they would lead new riots if Japan turned "militarist" by increasing the strength of her defense forces.

It came as a surprise that none of the three had good words for the Soviet Union. One student had been a member of a world youth rally in Moscow, where the theme had been Western "imperialism" and nuclear testing. That was fine with my Zengakuren companion, but he had made one small mistake: He got carried away and began to condemn Soviet nuclear tests as well. His Russian hosts were not amused.

"The Soviet security police got very angry," he recalled. "They refused to give us paper to print our leaflets about bomb tests to give to the Soviet people."

In the end the Japanese delegation was asked to leave, and it cost Russia some admirers. "Most Communists and socialists," my acquaintance concluded scowling, "think that the Soviet is a Communist country. But we know better. It is"—he used the word scornfully—"only a Stalinist country."

It seemed to me quite an enlightened attitude, and I began to think the professor had been wrong. Then, as my companions got up to go, they delivered their message for the United States.

"Please tell your people," one said gravely, "that we are only against their imperialist regime. We want to be friends with the American proletariat and help them in their national uprising."

"And when you return home," a second asked earnestly, "please send us information about your underground student movement in Washington, D. C. We want to know all about it."

They would never believe me, I decided, if I told them there was no such thing.

In any competition for the world's widest city limits, Tokyo—not Los Angeles—would probably take first prize. The reason is some-

Grill-to-bumper flood chokes a Tokyo street. During rush hours it may take half an hour to negotiate a downtown block. Beginners' tests are strict but, once licensed, drivers develop an individual style. A sharp horn blast signifies, "Look out! I am about to do something extraordinary."

Midday break: Private roof, mat to lie on, and purring radio complete the lunch hour for a Tokyo office worker. Japanese describe such scenes with borrowed words: "the leisure boom"—pronounced *reija booma.*

thing called Hachijo Jima—Hachijo Island—a speck of land legally belonging to Tokyo but lying 175 miles south in the Pacific. I had seen Hachijo Jima on several maps and wondered about the small outpost. Guidebooks gave its population, 12,250, and area, 30 square miles, but little more (map, page 453). One day a friend, Frank Agui, booked seats for us on the 60-minute flight from Tokyo International Airport to Hachijo.

We took off in the morning haze, turning south over Tokyo Bay with its vast armada of freighters, tankers, and liners, all awaiting a turn at the overcrowded docks of the great bay ports—Tokyo, Kawasaki, and Yokohama.

Then at last we were out over the broad Pacific, its surface like finely etched pewter in the morning light. Half an hour later, we were circling over Hachijo for a landing.

The little island had a somber look from the air—twin volcanic peaks rising darkly above the ocean, a sprinkling of low houses crouched among scattered green fields, and bordering beaches of black lava that writhed into the fringe of white surf (page 463).

At the airport I caught a small tour bus and started out along the southern, or seaward, side of the island. We followed a serpentine dirt road perpetually shrouded in spray thrown up by the long Pacific combers that hammer endlessly at Hachijo's iron coast.

Menu Favors Flying Fish

Hachijo Jima's living comes partly from the sea, or perhaps one should say from the air, since the islanders export *tobiuo*—flying fish. At a fishing village, whose jetties, walls, and even some houses were built of hand-sawn lava blocks, we watched the fleet come in.

One by one the graceful clipper-bowed fishing boats unloaded their blue-and-silver cargoes like torrents of bright coins onto the jetties. There the handlers arranged the fish in rows for cleaning, laying them out with their transparent wings folded back like miniature jets on a carrier deck.

In a village restaurant we had a Hachijo shore dinner—fried fillets of flying fish, pickled flying-fish roe, smoked flying fish, even flying-fish cakes. I managed everything but the pickled roe—when I got it near my mouth, the fumes brought tears to my eyes.

Model in Western bridal gown uses an antique automobile and the Akasaka Detached Palace for photographic background, in the manner of U. S. fashion magazines. Shinto bride (opposite) prefers traditional wig and kimono. Japan's Olympic committee meets in the palace, a former imperial residence.

After lunch our island guide arranged a bullfight for us, Hachijo Jima style. Two weary bulls butted each other in a 10-minute bout carefully controlled by handlers to avoid any injury to the animals. Most of the spectators found it exciting; to me it seemed a poor imitation of sumo.

Our time was short, and we returned to the airport by way of Hachijo's other seaside village. While my fellow passengers explored a small souvenir shop, I fell into conversation with a fisherman, Hisayasu Kitsuta, whose elegantly silver-capped teeth gave him a blinding smile. We exchanged bows, and I said his island was wonderfully serene compared to life in the city. Mr. Kitsuta sighed.

"Please tell that to our young people," he said sorrowfully. "They all want to go to Tokyo, where the bright lights are. One day there will be only old people here, and the next day, no one at all."

Had he ever wanted to live in Tokyo himself when he was young? He shook his head.

"Never," he said firmly, waving across the fields and dark beaches toward the sea. "Here the land is good, the water is clear, and a man can hear the wind. What more could I ask?"

He had a basket of bright shells for sale, and I bought a handful for my six-year-old daughter Robin back in Washington, D. C. I explained that Robin was an islander at heart, and Mr. Kitsuta gave me another 100-candlepower smile.

"Tell her when she grows up to come to Hachijo," he said, "and I will give her a whole basketful of shells."

Unhappily for Mr. Kitsuta, he is in the minority when it comes to Tokyo's bright lights. Few can resist the lure of the city's night life. The lure is not new—a Japanese proverb says that "people of Edo [Tokyo] do not keep their earnings overnight."

Geisha's Training Never Ends

Today the city has 50,000 nightclubs and cafes devoted to separating Edoites from their earnings. No one is more skillful, and more painless, at the art than Tokyo's traditional entertainers, the geisha.

Geisha, unfortunately, are not for everyone. An evening in one of the best geisha houses, including dinner, sake, classical dancing and song, can come to $100. Only the wealthy and those whom Tokyo calls *shayo zoku*, "the expense-account tribe"—men with large company funds for entertaining clients—are at home in the city's geisha districts.

Roughly translated, geisha means "accomplished person," and the profession is both skilled and respected. From feudal times into

Curtain of smog over Tokyo Harbor gives a coppery cast to the waterfront, one of many centers for the Japanese shipbuilding industry, now the world's largest. Desperate for living space, Tokyo dumps its trash into the bay and covers it with soil to create new land.

Shipyard fashion for women combines safety helmet, dungarees, and rubber-soled shoes. This worker toils as a sweeper in the Mitsubishi company's vast shipyard in Yokohama. Mitsubishi's industrial empire, broken up by Allied order following World War II, again numbers more than a score of subsidiaries.

Shed-full of tuna, fresh from the sea, awaits purchasers at the dockside Central Wholesale Market in Tokyo. An immense distribution center, the market handles 1,800 tons of fish and 3,300 tons of vegetables every day. To examine fish quality in the shed's gloom, buyers wield flashlights, their badges of office.

the 19th century, poor families often sold a pretty daughter to one of the great geisha houses, which then owned the girl for life. Today only volunteers are to be found in the houses, but training has changed little over the centuries.

I talked one day with Take Kawasaki, a strikingly handsome woman in her sixties who is a former geisha with 45 years' experience and who now directs the famous Akasaka geisha guild.

"In early times," Miss Kawasaki explained, "geisha were admired but not always envied; Japanese women preferred marriage and the home. Today it is different; the best geisha in Tokyo are as popular as movie stars, and many young girls dream of careers as geisha."

I asked Miss Kawasaki how long a girl must train to be a really good geisha.

"Sa," she answered, "that is difficult to say. Most of us are still learning."

Dragon Promises Year of Riches

For those who cannot afford the geisha's charm, Tokyo has a modern substitute—the nightclub hostess. The hostess's job, though

less specialized than the geisha's, is basically the same—to help customers spend money and forget time.

What Tokyo's thousands of nightclub hostesses lack in formal training they make up for in beauty and brains. Many are better read and better informed than the average university graduate.

Tokyoites tell the story of the Westerner who dropped in at a club one night and found his favorite hostess in tears. His first thought was that a customer had insulted her or that she had fought with the manager. Finally,

Gladiators without swords, ponderous *sumo* wrestlers grapple in a training house. Challengers line up for a chance at the winner. All affect the sumo trademark, a tight topknot; its style indicates a wrestler's rank —plain for novices, elaborate for champions.

Robed and sashed (opposite), a sumo wrestler poses stiffly for a friend and her camera beside the Imperial Palace grounds.

between her sobs, he learned the trouble—she had just read in the afternoon newspaper that William Faulkner was dead.

I don't know if the story is true, but I did meet a nightclub hostess who had a passion for George Shearing and Rachmaninoff; she had a dozen of their recordings at home. I met her at Hanabasha, one of Tokyo's biggest nightclubs. I never learned her real name. Her professional name was Reiko.

In Tokyo nightclub slang, Reiko is what is known as a *toranshista gurru*—"transistor girl"—one who, as the name suggests, is small, compact, and full of energy.

The dance floor resembled the platform at Shinjuku Station in rush hour, so Reiko and I settled for a napkin-size table in a corner. We talked of Tokyo's *reija boomu*—the "lei-sure boom"—and the city's fantastic wealth.

"This year, most richest one," Reiko began. "Japanese call this Year of Tatsu—Year of Dragon. Dragon stand for rich."

I asked about the year before. With two fingers Reiko imitated a pair of legs hopping across the table. "Last year Tokyo move fast—Year of Usagi, Rabbit." And next year? She wrinkled her nose in distaste. "Next year not so good. Year of Mi—Snake." She brightened. "Next year after"—four fingers drummed a faint thunder on the tablecloth—"very friendly year. Year of Uma, Horse."

An hour slipped by, and I stood up reluctantly. Reiko followed me outside, although there was a chill in the air. We bowed politely to each other.

"You know *sayonara*, Japanese goodbye?"

Reiko asked, and I nodded. "Very nice, but little sad," she said. "Mean, 'If it is so we must part. . . .'"

I had heard the expression thousands of times but never understood its delicacy. Reiko bowed once more and gave me a shy smile. "Sayonara," she said, and was gone.

I remember another entertainer in Tokyo, a great beauty named Tomoemon. Tomoemon is a star in the world-famous Kabuki-za Theater, and a symbol of feminine charm to thousands of Japanese admirers. It matters not at all that Tomoemon is a grown man and the father of two young sons. Men have been playing the roles of kabuki heroines for more than three centuries. A

Breath-taking leap lifts a Tokyo schoolgirl twice her height on Japan's high-flying version of the seesaw. Instead of straddling a plank, young enthusiasts grasp the bars and soar in standing position. Like many Japanese, these pupils enjoy freedom from prewar uniforms and taboos against coeducation.

Head down, spike heels set, a lunch-hour golfer tees off at the three-level driving range in downtown Shiba Park. Tokyo's fastest-growing sport, *gorafu* counts fanatics among corporation presidents and salesgirls. Postwar American influence on women extends far beyond fashions and golf links. From voteless status before 1947, Japanese women have risen to fill presidencies of colleges, cabinet posts, and seats in the Diet.

PHOTOGRAPH BY NATIONAL GEOGRAPHIC

Tossing on a wave of backs, a gilded Shinto palanquin steers an uncertain course through the Kanda district. Tokyo's thousands of shrines annually send their patron gods on boisterous tours atop the shoulders of the faithful. These young men hoist a *mikoshi* from the Misaki Shrine under the nervous eye of a priest (far right). Large red ideograms on the backs of coats say "festival." Lapels carry the shrine's name in white.

PHOTOGRAPHED WIDELY PARKE © N.G.S.

real woman on the kabuki stage would be altogether unthinkable.

"The tradition grew up in the Tokugawa dynasty, centuries ago," Tomoemon told me in his dressing room as he changed for a scene. He sat gracefully on the tatami matting before a low mirror, retouching the chalk-white pancake makeup that beautifies kabuki heroines and geisha (page 453). An attendant arranged the magnificently embroidered courtesan's robe that must have contained 20 yards of material.

"In early kabuki, women played the female roles," Tomoemon continued. "But gradually the conduct of the actresses became improper. The shogun, or dictator, finally forbade women to take part in the performances. Kabuki was reorganized into serious drama, with men taking all the roles."

I had heard that the profession of *onnagata*—the actor who impersonates females—is a very proud one. Tomoemon told me that he was the seventh generation in his family to bear the stage name Tomoemon.

"Onnagata is a way of being as well as an art," he explained, penciling thin lines over the white makeup to create a mask of tragedy. "One cannot only play the woman. One must *be* the woman, or else it is merely disguise.

"But we are fortunate today, we onnagata. We lead normal lives on the outside. Once upon a time, all onnagata were required to dress as women both inside and outside the theater. They even had to use the female entrances to public baths."

Curtain time approached, and I had time for one question. With all of Tokyo's new wealth, I said, with the emphasis on change and progress, what would become of the old values? Would kabuki, for example, survive among a younger generation that seemed to care little for tradition and the past? A faint smile lit Tomoemon's stylized features.

"Kabuki will survive," he answered quietly. "Like any great art, it is based on human truth. Truth appeals to all generations. Is it not the same with your Western art? Will your Shakespeare not survive in the modern age?"

The attendant helped him up, and I stood aside for him to pass. He put out his hand and we shook in Western fashion. Then as he reached the door, Tomoemon turned and gave me an exquisite bow.

Earthquake Bares Flaws in Imperial Palace

One of my last days in Tokyo I went to a birthday party with 130,000 other guests. The occasion was April 29, the birthday of Emperor Hirohito, when the Imperial Palace grounds are open to the public.

I joined the vast streams of early morning well-wishers that flowed through the gates of the outer wall of the palace and into a field beside a temporary pavilion. As the time approached for the Emperor's appearance, the crowd grew hushed and there was only the rustle of wind among thousands of small paper Japanese flags.

Suddenly the Emperor was there, waving from the pavilion—a graying, kindly-looking man in his 60's, flanked by the Empress and by his tall, slender son, Crown Prince Akihito. The crowd gave him a thunderous greeting.

Amid the commotion, the air was thick with frantically waving paper flags and even with babies held aloft for their first look at Japan's royal family. But this was Tokyo, the land of Canon and Nikon. Among the flags and babies there were also thousands of cameras, each held as high as possible by its owner and aimed with more hope than accuracy in the Emperor's direction.

Not long afterward, through the courtesy of the Imperial Household, I took a special tour of the inner palace grounds. As the car passed beneath one of the huge watchtowers in the wall, a chamberlain ex-

plained that the palace had been a cooperative project; in building it, the shogun assigned sections of the walls and defenses to his various war lords to raise. The wealthier barons got whole watchtowers to build, while poorer lords took on small sections of wall.

Some of the stones in the wall were immense blocks the size of buses. These, my guide explained, had been brought to the capital by sea, each one slung ingeniously on ropes between two boats so that immersion would reduce its weight.

"The small *daimyo*, the poorer lords," the chamberlain went on, "often saved money by using small stones where they did not show. Centuries later, the 1923 earthquake gave them away. Where the rich daimyo built, the wall generally held firm. It was the cheaper sections that collapsed."

The palace was a vast sanctuary of beauty and quiet in the roaring heart of Tokyo. As we drove through dark stands of towering evergreens, I saw the occasional glint of a small pond or the flash of white that meant a *sagi*, or heron. Each year hundreds of migrating ducks descend on the palace grounds to rest in the quiet pools and forage along the shores. I could well understand the attraction of the palace, but it is a brave duck indeed that flies across Tokyo to enjoy it.

Olympic Symbol Tokyo's Trademark

I left Tokyo at night. I didn't see my customs inspector, the one who had managed to work the Olympics into our conversation when I had arrived, but the luminous sign with the five bright rings still lit up the night at the airport.

The big jet climbed steeply and leveled off over the city. Far below in the darkness of the great Kanto Plain, Tokyo lay glimmering like some enormous galaxy against the black plush of space.

For part of the city the day was ending. Among the rows of shacks in the ragpickers' village, the oil-can cooking stoves would be left to flicker and die. At Tokyo University, Professor Kawasumi's seismographs would scratch and flutter in laboratories gone dark, and beside the Imperial Palace moat the swans would settle down for the night.

Elsewhere in the city the day would only be beginning. Along the lanterned streets of the geisha districts, the old-fashioned curtained rickshas would deliver their splendidly kimonoed passengers to the doors of restaurants. From somewhere in the quarter there would come the faint clap of hands as a last-minute visitor to one of the Shinto shrines summoned her gods before going off to work.

Along the Sumida River the endless mutter of the diesel barges would blend with the long call of freighters standing down the bay, and in narrow back streets throughout the city a *yonaki-soba*—a nighttime noodle vendor—would pipe the first plaintive notes of the evening on his flute.

The whine of the jet engines suddenly shifted to a higher key, and Tokyo's lights drifted behind. I glanced at my seatmate, a pleasant-looking Japanese in his 50's, who was leafing through a pamphlet on Tokyo. As he looked up I caught a glimpse of the Olympic emblem, splashed across a page.

"Tokyo," he began, "very proud this year. Olympics. . . ."

I settled back to listen. THE END

Start of a mighty swing promises a hit in a dock workers' lunch-hour game. During spring and summer, noon whistles signal pick-up games in parks, dead-end streets, and even on rooftops.

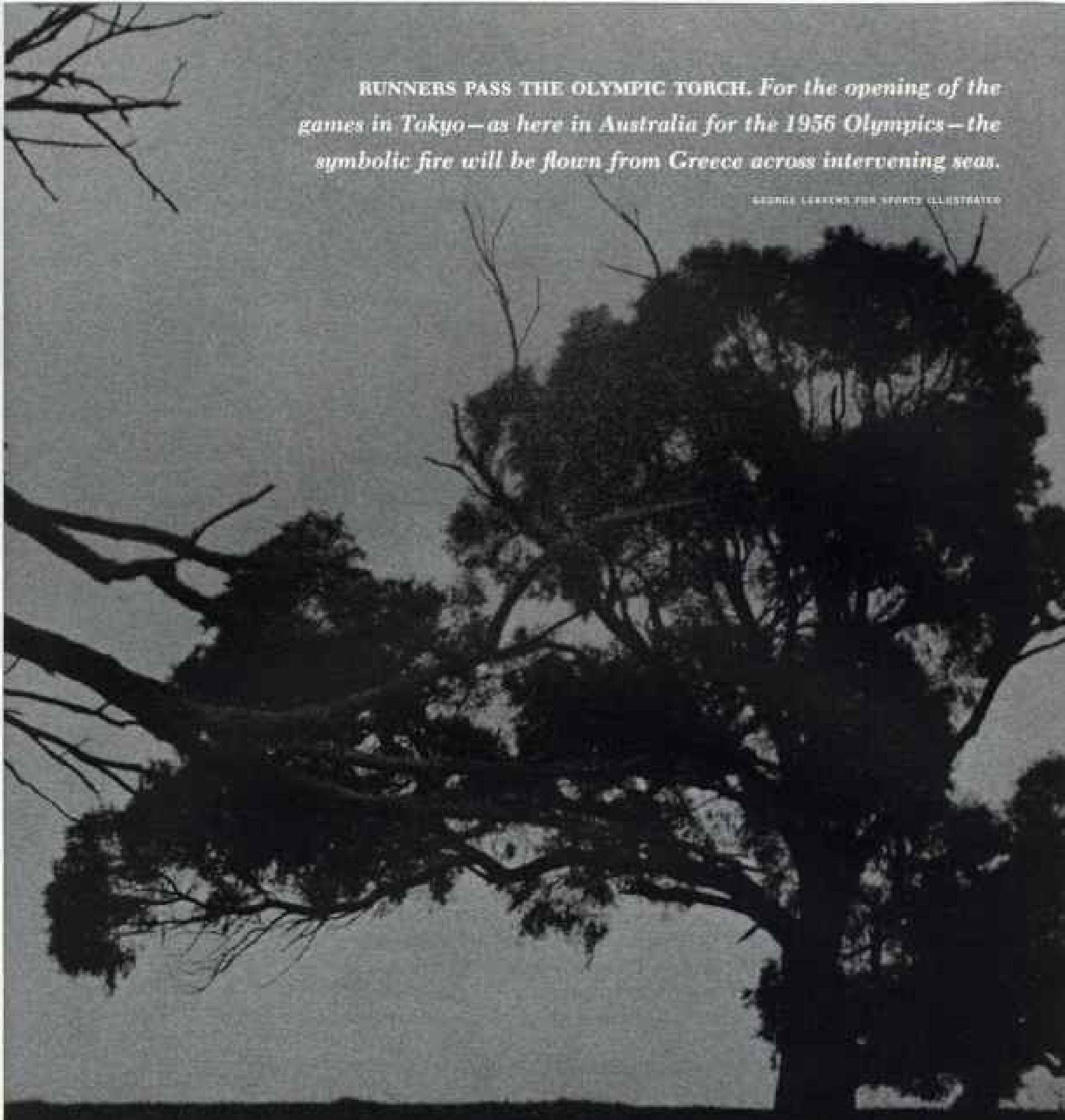
Flying feet and knuckles provide the weapons in *karate*, a murderous fighting technique that originated in China; its name means "empty hand." Utilizing calloused knuckles, elbows, and edges of feet and hands, these students learn to split a one-inch-thick board with a lightning blow. Japanese law forbids the technique except as a supervised sport.

AGAIN—THE OLYM

"LET US EXPORT our oarsmen, our runners, our fencers to other lands. That is the true free trade of the future; and the day it is introduced into Europe the cause of peace will have received a new and strong ally."

With these ringing words 72 years ago, an idealistic Frenchman proposed "the splendid and beneficent task of reviving the Olympic Games."

The games that the good Baron Pierre de Coubertin hoped to revive had been dead 15 centuries, but the



RUNNERS PASS THE OLYMPIC TORCH. *For the opening of the games in Tokyo—as here in Australia for the 1956 Olympics—the symbolic fire will be flown from Greece across intervening seas.*

GEORGE LEAVENS FOR SPORTS ILLUSTRATED

By ALAN J. GOULD

PIC CHALLENGE

spades of German archeologists on the Greek plain of Olympia had brought them to world attention.

By the time De Coubertin died in 1937, neither he nor anyone else could have had any illusions about the Olympics bringing world peace. Already they had been suspended by one world war, and another was on the way.

Yet the impact of the games has been tremendous in terms of brilliant performances and, during recent years, in the extraordinary growth of

friendly international rivalries. Even some "cold war" ice seems to have been cracked.

Holding aloof until they felt equipped to make a respectable showing in big-league competition, the Soviets first entered the Olympic Games in 1952 at Helsinki, 40 years after their countrymen, under the tsarist banner, last participated in the games. The 1952 athletes, however, were the representatives of Stalinist Russia; they lived apart, behind barbed wire, and under the surveillance of Communist secret police.

This attitude was progressively discarded in the next two Olympics. At Rome in 1960, the athletes of Communist and capitalist countries mingled in relaxed and friendly fashion, even though engaged in a spectacular rivalry for top honors (opposite). All Olympic records in women's track and field, and all in men's and women's swimming, were wiped out. Only four individual marks in men's track and field withstood the assaults of many nations led by the United States and Russia.

Coming virtually from nowhere, the Soviet Union in three Olympiads has outscored the United States, 270 to 221, in total medals (first, second, and third) for all the summer Olympic sports. In men's track and field, the blue-ribbon sport, the U.S.S.R. has given the U. S. its biggest challenge since little Finland struck its mightiest blows at American supremacy in the twenties.

It is against this intriguing background that the games will be held this October in Tokyo—24 years late. Japan was to have been the host in 1940, but fate called the world to a grimmer game. For the Japanese the XVIII Olympiad is the long-sought fulfillment of an ambition frustrated by the war lords. For the Olympic ideal it is a long step forward—the first time the games have been held in Asia, home of more than half of the human race (map, pages 506-7).

Human Projectiles in Flight: Russia's and America's Top Broad Jumpers Meet

Symbolizing peaceful coexistence on the athletic field, Russia's Igor Ter-Ovanesyan and the U.S.A.'s Ralph Boston compete in the Olympic Games at Rome in 1960.

Though Ter-Ovanesyan was later to set a new world record of 27 feet, 3¼ inches, his best jump at Rome—26 feet, 4½ inches—won only third place and a bronze medal.

Boston's gold-medal-winning jump, 26 feet, 7¾ inches, erased Jesse Owens's 1936 record at Berlin (pages 501 and 502). Teammate Irvin Roberson of Cornell fell only one centimeter short of Boston's jump, giving the U. S. a one-two finish.

"My heart was really thumping," Boston said after officials measured Roberson's leap.

In 1964 Olympic trials at Randall's Island, New York, Boston twice surpassed 27 feet—by 4 inches and 5½ inches—but a strong following wind caused officials to disallow what would have been a new world record.

Dorando, the Games' Most Famous Loser

One of the events the Russians have never won is the greatest and most truly international of all—the rugged marathon, named for a battlefield in ancient Greece. Not only does it cover the most geography—26 miles, 385 yards of it—but usually the marathon has at least one entry from every country participating in the games, and it is the only Olympic race which has been won by runners from five continents.

Since the beginning of the modern games at Athens in 1896, many a great athletic star has sparkled in the Olympic galaxy. I shall never forget seeing Paavo Nurmi, foremost of Finland's fabulous parade of distance runners, win four gold medals at Paris in 1924 (page 500). In the swastika-plastered setting of the 1936 games at Berlin, I watched as the wonderful American Negro sprinter and jumper, Jesse Owens, also won four Olympic gold medals—to the obvious embarrassment of Adolf Hitler and his theory of Aryan supremacy (page 501).

Yet for sheer emotional impact, no single Olympic episode can overshadow the climactic struggle of a little marathon runner from Italy who didn't even win. In defeat as dramatic as a Greek tragedy, he stirred the faltering revival of the Olympic Games to heights of courageous performance, controversial excitement, and world-wide interest previously untouched.

His full name was Dorando Pietri, but like the storied strongman and hero of ancient Greece, Milo of Crotona, he is known to posterity by one name alone.

Dorando was 22 years old, weighed 122 pounds, and was serving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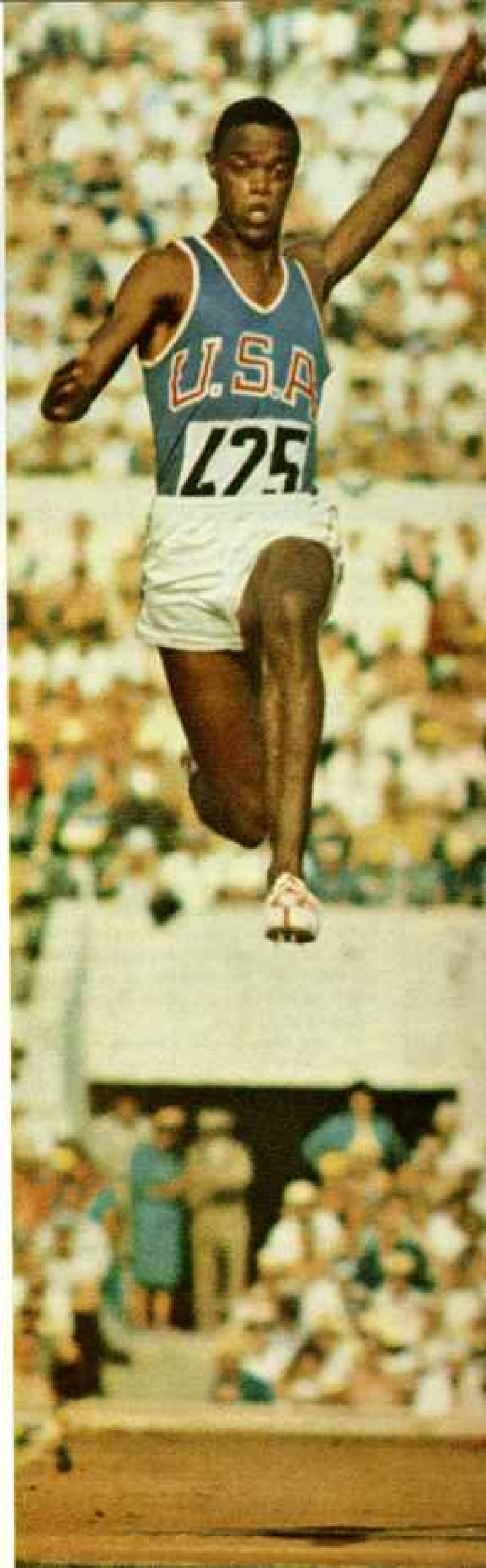
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PHOTOGRAPH BY B. ANTHONY STEWART, © N.G.S.

Winner of the 1908 marathon in London, 78-year-old Johnny Hayes (left) shows author Gould a photograph of Queen Alexandra presenting him the Olympic prize. He became winner after the Italian, Dorando Pietri, collapsed in sight of the tape and was disqualified for being helped to finish. Trophies of Hayes's running days surround him in his Englewood, New Jersey, home.

THE AUTHOR

TO UNFOLD the brilliant background of the world-wide modern Olympic Games, the National Geographic Society turned to one of the greatest newsmen of our time—Alan J. Gould of the Associated Press. He has covered the games in five countries—at Paris, Amsterdam, Los Angeles, Berlin, and London—and has written or edited more words on the Olympics than any other man, living or dead.

In fact Alan Gould, when he retired last year as AP's Executive Editor, had been responsible for more words on all newsworthy subjects than any other editor who ever lived. As the far-ranging, fast-writing young General Sports Editor of the Associated Press, he led the day-to-day reporting of a remarkable era in sport—the fabulous 20's and 30's. Then, shortly after the attack on Pearl Harbor, the Associated Press picked him to supervise its entire world-wide news report, as well as its news photo services. For 21 years he directed war and postwar coverage as the AP news budget mounted to three million words a day.

Though Alan Gould has seen and assessed every great news story for three decades, the subject surest to spark his most vivid recollections is the Olympic Games.

his last year in the Italian Army. Only his King and more enthusiastic countrymen accorded him more than an outside chance as 56 runners from 16 countries started for London from Windsor Castle at a signal from the Princess of Wales, later Queen Mary.

But on that July day in 1908, England was steaming in unaccustomed 83-degree heat. Favored British and Canadian runners fell by the wayside, victims of their own killing early pace. Conspicuous among them was Tom Longboat, the Canadian Indian, who dropped out after 20 miles amid rumors, never verified, that he had been drugged.

As the race built up to its grand climax at the finish line before a crowd overflowing the stadium at Shepherd's Bush, it became a duel between Dorando and Charles Hefferon of South Africa, who worked in the prison at Bloemfontein.

Nearest to the front runners was a surprising American contingent running strongly and led by 22-year-old Johnny Hayes, a New York department store clerk.

If there had been a script writer at work, pulling out all the stops of his imagination, he could hardly have painted a more graphic word picture than the factually restrained British report in describing the last mile—after Hefferon and Dorando had run one-two for nearly seven miles! Even the place name, Wormwood Scrubs, sounds as a marathon runner must feel as he nears the end of that awful ordeal.

"The crucial point of this long and desperate struggle arrived when Dorando came in sight of Hefferon in the Old Oak Common Lane," said the report. ". . . it was in response to a tremendous outburst of cheering from the huge throngs of spectators that Dorando made the fatal spurt which took him past Hefferon before they reached Wormwood Scrubs. Soon afterwards, Hayes passed the South African as well.

No Dying in the Queen's Presence

"Dorando's premature effort had so exhausted him that he could scarcely reach the entrance of the Stadium, where nearly a hundred thousand spectators were awaiting his arrival. . . .

"Dorando was almost unconscious when he reached the cinder path, and turned to his right instead of his left. The slope from the archway was apparently the final stroke. He collapsed upon the track.

"As it was impossible to leave him there, for it looked as if he might die in the very

The Most Controversial Marathon: 1908 Pictures Show High Drama

His heart set on victory, little Dorando Pietri of Italy led the Olympic field as he neared the finish line in London's Shepherd's Bush Stadium. But cheers turn to dismay when he turns the wrong way, staggers, and falls, apparently near death (above).

Sympathizers lift Dorando to his feet and point him toward the tape, a violation of the rules.

Officials disqualify the Italian further by helping him across the line. Johnny Hayes, who finished 32 seconds later, won—only native American ever to take the marathon race.

BROWN BROTHERS

presence of the Queen and that enormous crowd, the doctors and attendants rushed to his assistance [preceding page]. When he was slightly resuscitated, the excitement of his compatriots was so intense that the officials did not put him on an ambulance and send him out, as they would no doubt have done under less agitating circumstances.

"The first fall and the first assistance rendered had, if it had been only realised, disqualified the Italian for the prize. But there was a generous idea in the heart of nearly every spectator that one who had suffered so much should not be disappointed of the finish he had so nearly reached."

In short, there were many helping hands until Dorando, after several more falls, had staggered into the tape—followed just 32 seconds later by Johnny Hayes.

Of course, after the impassioned babel of debate, the Italian was disqualified and the American declared winner.

"Meanwhile," continued the official report, "Dorando lay between life and death for two hours and a half. The tidings that Her Majesty the Queen [Alexandra] had given him a Gold Cup, as a token of her gracious sympathy with the courage she had watched, was the first thing that turned the scale in the Italian's favour. His heart had been more than half an inch displaced, but by the next morning he looked as well as ever. Hefferon, of South Africa, alone divided Hayes from his two compatriots, [Joe] Forshaw and [Roy] Welton, who came in third and fourth respectively."

This, incidentally, has been Uncle Sam's only real victory in this race of races, the marathon. The United States also won at the 1904 games in St. Louis, Missouri, but the victor, T. J. Hicks, was British-born.

Both Dorando and Hayes, by the way, were induced to turn professional, and marathon running became, in the words of the British chronicler, an "epidemic . . . which attacked the civilised world from Madison Square Gardens to the Valley of the Nile." Dorando easily defeated Hayes in two races in New York's old Madison Square Garden. Both were beaten in another race by the Canadian Indian, Tom Longboat.

This Time Nobody Lent a Hand

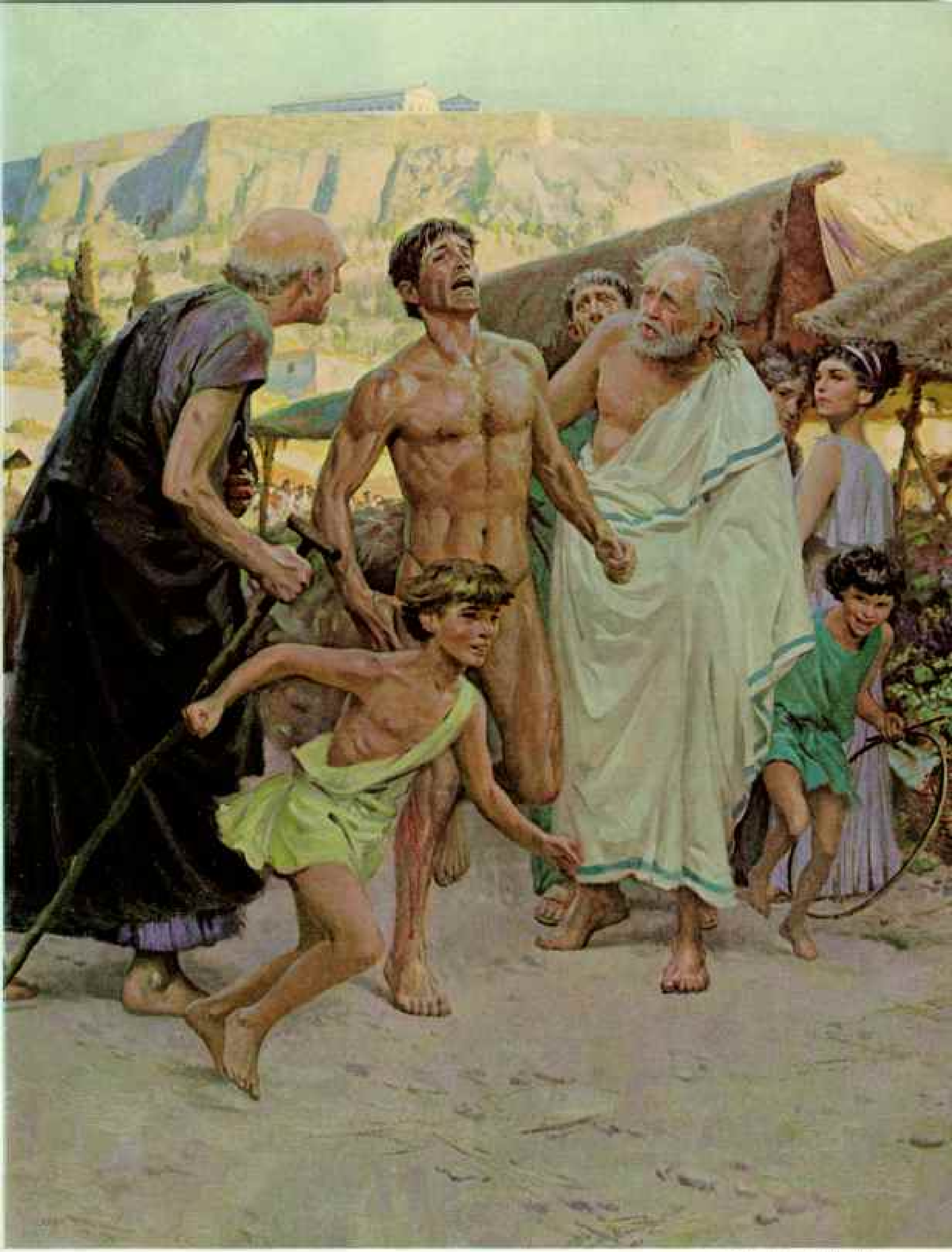
In one of the five Olympics I have watched and covered for the Associated Press, I saw history almost repeat itself. Oddly, it was exactly 40 years later and again the setting was London. Just as before, a sultry day took a heavy toll among the marathon favorites.

On that August day of 1948, a 21-year-old Belgian paratrooper, Etienne Gailly, led the way into Wembley Stadium for the final lap. Like Dorando, he was on the verge of collapse. Unlike the Italian, Gailly did not actually fall, but he was virtually "out on his feet," barely tottering forward, and was quickly overtaken by two of his pursuers, Delfo Cabrera of Argentina, the winner, and Britain's Tom Richards.

Another great London crowd shouted sympathy and encouragement, but the lesson had been learned. Not a single helping hand was extended to the Belgian until he had staggered across the finish line.

Over the years the winners of the marathon add up to perhaps the oddest assortment of athletes ever to find their way into the record book. Among them have been a little

"Rejoice, We Conquer!"
Finish of the World's
First Marathon



History records that a courier brought Athens these words of victory over invading Persians at Marathon in 490 B.C., then fell dead. Painting depicts the exhausted messenger's arrival in the city, beneath the sheer walls of the Acropolis. With poetic license, Robert Browning, in one of his *Dramatic Idyls*, attributed the 25-mile run to Pheidippides, who had been dispatched from Athens before the battle to ask help of Sparta, 140 miles away. He covered that distance in two days.

Greek shepherd, a onetime baker's boy from Paris, a South African mounted policeman, a sewing machine salesman from Helsinki, an Algerian auto mechanic, a 20-year-old Argentinian newsboy, a Korean-born student from Tokyo, and, at Rome in 1960, a member of the Ethiopian Imperial Bodyguard (page 503).

Anything can happen in the marathon. Here is the great leveler, the supreme athletic event in which the good big man can be beaten by the good little man. In the long run—and it *is* a long run—victory is not only a matter of superb physical condition, and ability to ration running power, but of stout heart and inflexible will.

Contestants in this event come in all sizes and shapes, but usually the best marathon runners are little and lean, as if made of leather and wire with a bellows for a chest.

It is a common misconception that the marathon is patterned after a distance race in the ancient Greek Olympics. Actually, there is nothing comparable in record or legend.

The marathon was included in the modern games at the urging of a Frenchman, Michel Bréal. It commemorates the feat of a Greek courier who in 490 B.C. ran and climbed his way from the plain of Marathon to Athens to announce Greek victory over the Persians (preceding pages). A legend popularized by the English poet Robert Browning in one of his *Dramatic Idyls* credits the run to Pheidippides, but classical scholars find no confirmation of this in the ancient histories.

The distance from Marathon to Athens now, by highway, is nearly 25 miles. It was probably longer and a lot more rugged in ancient times. The Greeks in 1896 did their best to duplicate the historic route, and it measured just 260 yards short of 25 miles.

Thereafter the Olympic course varied each time, and was not standardized at the present official distance of 26 miles, 385 yards until 1924 at Paris. For

Greek wrestlers in the ancient Olympic Games compete near one of the treasury buildings, repositories for votive offerings to the gods. Shadows indicate the hour is late, suggesting the final event in the pentathlon. Referee carries his badge of office, a forked stick. He will proclaim the winner after one man has been thrown to the ground three times. In the earliest games, the Greeks had only foot races. From time to time they added other events; one of the most popular was wrestling.

In re-creating such scenes for NATIONAL GEOGRAPHIC, artist Tom Lovell had the guidance of leading classicists to assure accuracy in every detail.

Visitors to present-day Olympia linger in the ruins of the Temple of Zeus. Statues of Greek Olympic heroes once stood in front of the shrine.

PAINTING BY TOM LOVELL AND HIS EXTRAPOLATIONS BY PHILLIP HARRINGTON © NATIONAL GEOGRAPHIC SOCIETY

some strange reason, officials picked as the standard the distance of the 1908 (Dorando's year) race, which was arbitrarily started on the grounds of Windsor Castle so the royal grandchildren could see the start.

In Ancient Greece a Dead Man Won

First recorded in 776 B.C., the ancient Greek games at Olympia for centuries were the greatest peacetime festivals of the civilization bordering on the Mediterranean Sea. In their heyday, when the statue of Zeus looked down upon his worshipers, Olympic celebrations featured sprint races and chariot races and usually were climaxed by all-round tests of endurance, such as the pentathlon. This comprised the broad jump (with dumbbells), foot racing, hurling the four-pound discus, throwing the javelin, and, finally, wrestling.

At one time the feature event was a brutal boxing-wrestling affair called the *pankration*, meaning "all-strength," which was fought until surrender or death. One practitioner of this gentle art, Arrachion, achieved unenviable distinction when, locked in a fatal stranglehold, he broke his opponent's foot with a dying wrench. In that instant his agonized foe

surrendered—and the olive wreath went to the dead man.

When at last Greece began to fade, so did the games. As Rome emerged, the Olympics lost their purity and strength. They reached a low point in A.D. 66 when the Roman Emperor Nero entered the games and won every event in which he participated, the other contestants knowing what was good for them.

By A.D. 394 the Olympic Games were dead, and they remained so until De Coubertin sparked their revival and the first modern Olympic Games were held at Athens in 1896. No sooner had the Athens games been com-

Greek Runners in Heavy Armor Race for Fame and an Olive Wreath

At first the foot race covered only a *stadion*, one length of the stadium, about 200 yards. Eventually longer races were added. Under Spartan influence, runners sometimes wore armor. The starting line may be seen behind these contestants, who wear the gear popular about 450 B.C. Echo Stoa's long tile roof rises in center; a treasury building stands at right. Lead runner's serpent-decorated shield obscures the Temple of Zeus.

HUNNEWELL PRESS PHOTO SERVICE (ABOVE), WIDE WORLD (LEFT), BROWN BROTHERS (BELOW), AND CULVER PICTURE

Hands on ground, America's Tom Burke uses the revolutionary four-point crouch to win the 100-meter dash in the first modern Olympic Games, held at Athens in 1896. Burke took the 400-meter run also.

Boy wonder Bob Mathias was an unknown 17-year-old Californian five months before he won his first Olympic decathlon at London in 1948. Four years later at Helsinki he took his second decathlon championship, the only athlete ever to repeat in this grueling test.

Flying Finn, Paavo Nurmi competed in the 1920, '24, and '28 games, winning seven times. He and teammates jolted Americans accustomed to sweeping victories.

Throwing the javelin was one of many sports in which American Indian athlete Jim Thorpe excelled. Standout in the 1912 games in Stockholm, he later was stripped of his medals for having played professional baseball.

Star in four Olympics, Ray Ewry won a record ten gold medals for the U.S. in the standing jumps, no longer held. An invalid as a boy, he exercised at his doctor's orders. Here he does the standing high jump at Paris in 1900.

Blinding bursts of speed near the finish helped Jesse Owens defeat rivals at the tape. A big winner at Berlin in 1936, he embarrassed Nazi "master-race" theorists.

pleted than De Coubertin found himself embroiled with the Greeks. Understandably, with all its great traditions, Greece wanted to perpetuate its place in the sun and become the permanent host.

This ran directly counter to one of the Baron's basic aims, that of making the Olympics truly international. Finally, after some fast diplomatic footwork, the decision was made to hold the second Olympics at Paris in 1900, and a precedent had been established for holding the games in a different city every four years.

Politics and Circus Tactics Pose Threats

Other troubles beset De Coubertin and his colleagues. Lacking the firm control that the International Olympic Committee later applied, programs for the games at Paris in 1900 and St. Louis in 1904 got out of hand. In effect, they became sideshows for the Paris International Exposition and the Louisiana Purchase Centennial Exposition in St. Louis.

The IOC has had to resist such efforts and also attempts to use the Olympics for political purposes. I was at Berlin in 1936 when the games were beclouded, first, by the racist prejudices of the Nazis, and, second, by the ominous rumblings preceding World War II.

Even before the games, Nazi propaganda minister Joseph Paul Goebbels solemnly exhorted visiting reporters to extol the "New Germany's" economic and social progress. When my dispatches pointed up this violation of the Olympic spirit, and critical reactions to it, I was given an indirect but official warning about this "unfriendliness."

It would have taken stronger discouragements than these, however, to keep the Olympians from pursuit of their goals: International athletics unsullied in amateur status or spirit, free from commercial exploitation or political pressures, dedicated to the strengthening of individual character and, ideally, to greater world brotherhood through friendly competitive sports.

At Tokyo there is no telling what heights, lengths, or bursts of speed may be achieved under the combined spurs of better equipment, improved techniques, more highly specialized training methods, and vastly expanded competition. The growing crop of new records already has put many of Rome's 1960 performances in the shade. For example, America's Don Bragg won the pole vault there at 15 feet, 5⅛ inches, but the revolutionary fiberglass pole has been largely responsible for lofting the world record past 17 feet.

Higher, Faster, Farther—How Vastly Olympic Records

NEW IDEAS, training methods, and equipment propel athletes to feats once considered impossible. Women today regularly beat some of the records set by the great Johnny Weissmuller in swimming. High school boys now better Jesse Owens's 9.4 seconds in the 100-yard dash. Roger Bannister, first to shatter the 4-minute mile, believes that future milers may achieve 3½ minutes. In this series of paintings, artist Carlos Lacámara shows graphically how Olympic record-holders of today compare with those of the past.

Russian high jumper Robert Shavlakadze in 1960 defeated teammate Valery Brumel and American John Thomas in an epic twilight contest. All three topped seven feet, more than a foot higher than Ellery Clark's 1896 record. Harold Osborn, the 1924 winner, is the only athlete in Olympic history ever to win an individual event plus the coveted decathlon.

Known as the "thief of starts" because of his quick reflexes, Germany's Armin Hary won the 100-meter dash at Rome in 1960. Eddie Tolan took the first Olympic photo-finish race in 1932. In that year women eclipsed Tom Burke's 1896 mark. In 1960 Wilma Rudolph ran 100 meters in 11 flat.

Running broad jumper Ralph Boston added almost six feet to Ellery Clark's 1896 mark and erased Jesse Owens's 1936 leap—the longest-standing Olympic track-and-field record. In 1900 Al Kraenzlein won the broad jump and three other individual gold medals, a feat yet unsurpassed in one Olympiad.

Debate over the "ultimates" in human ability prompted an American expert, Brutus Hamilton, to try calculating the answers scientifically 30 years ago. An all-round champion in his college days at Missouri and a famed college coach at Missouri and California, he was also to become head coach of a sensationally successful U. S. Olympic track-and-field team in 1952. In 1934 he arrived at a set of supposedly unbeatable "perfect" records for all standard events.

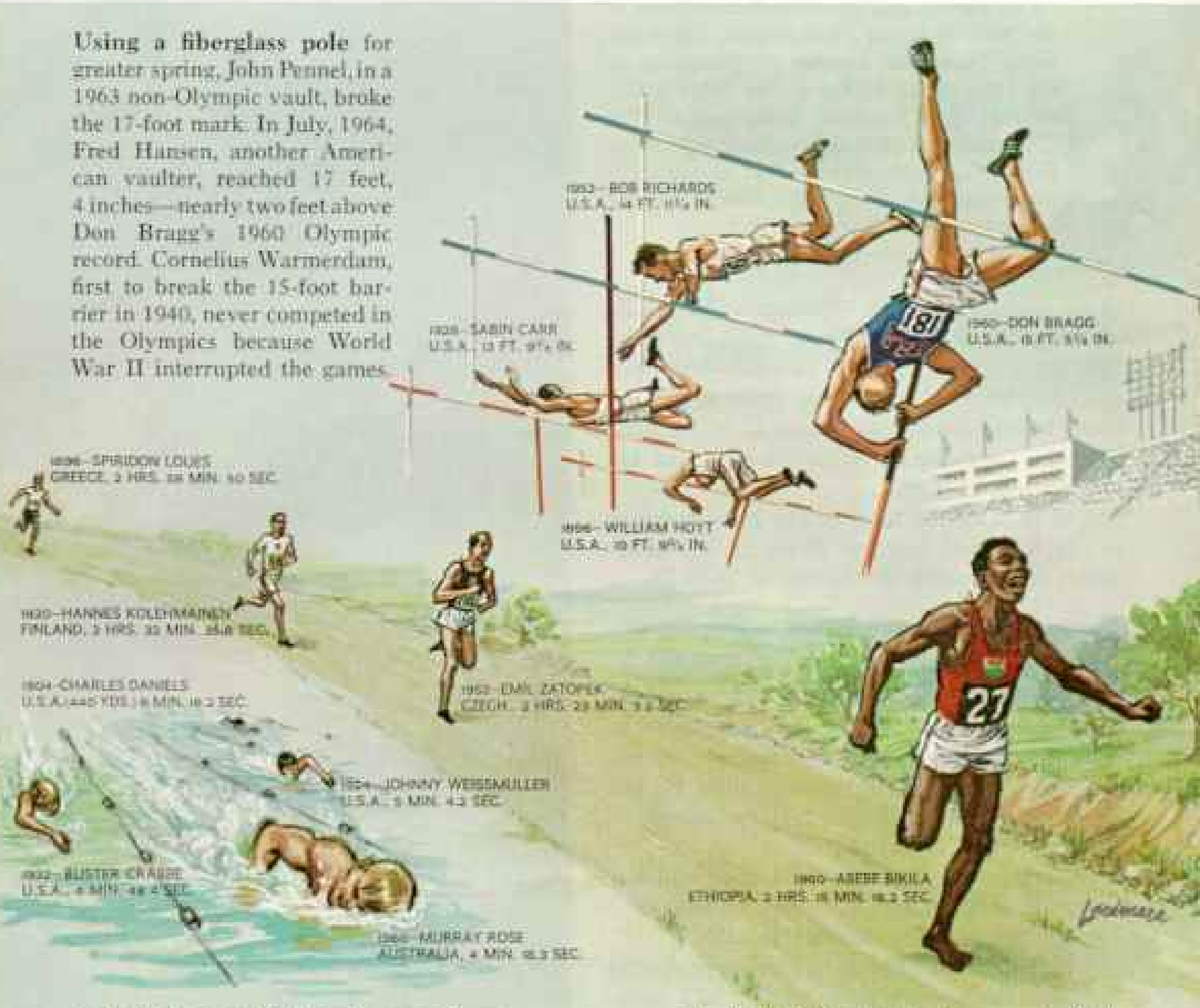
Today only one of Hamilton's 18 "perfect" marks—27 feet, 4.74 inches in the broad jump—remains unsurpassed, although Ralph Boston of the United States recently bettered it with an unofficial leap of 27 feet, 5¾ inches (page 490). The official world record, held by Russia's Igor Ter-Ovanesyan, stands at 27 feet, 3¼ inches, less than an inch and a half short of Hamilton's ideal.

Why have carefully deduced theories of human athletic capacity been shot so full of holes? Does it mean that stars of 25 to 50 years ago would not be in a class with modern champions if they could return in their prime, with the aid of improved conditions?

I have put these questions to many sports authorities, and I believe the most pointed answers come from Robert J. H. Kiphuth, Yale University's renowned swimming coach,

Have Improved Since the First Modern Games in 1896

Using a fiberglass pole for greater spring, John Pennel, in a 1963 non-Olympic vault, broke the 17-foot mark. In July, 1964, Fred Hansen, another American vaulter, reached 17 feet, 4 inches—nearly two feet above Don Bragg's 1960 Olympic record. Cornelius Warmerdam, first to break the 15-foot barrier in 1940, never competed in the Olympics because World War II interrupted the games.



Australia's youthful swimmer Murray Rose chopped almost 46 seconds off Johnny Weissmuller's 1924 time in the 400-meter free style. No race at the distance was held from 1896 to 1904. Buster Crabbe and Weissmuller, best in their day, later won film roles as Flash Gordon and Tarzan.

Barefoot Ethiopian, palace guard Abebe Bikila won the 26-mile, 385-yard marathon four years ago, eclipsing by 43½ minutes the 25-mile time of Greek shepherd Spiridon Loues in 1896. The distance was standardized in 1924. Marathon times can be misleading because courses vary widely in terrain.

athletic director, and recipient last year of a Presidential Medal of Freedom for inspiring "generations of athletes with high ideals of achievement and sportsmanship."

"It's mostly up here—psychological," said Kiphuth, tapping his head. "Until the crawl stroke was introduced for speed swimming, free style, the idea of beating 60 seconds for 100 meters seemed just as remote as the 4-minute mile in foot racing. Look what happened to mile running after England's Roger Bannister first cracked the 4-minute barrier in 1954—and just barely, at 3:59.4. The floodgates opened, all over the world, because it broke the mental barrier, too.

"There have been miles in which the first eight finishers were under four minutes, including runners whose previous performances indicated no such capacity. Does that mean all these boys are faster runners than the great Paavo Nurmi, whose best was 4:10.4, a world record in 1923? Of course not!"

Nurmi was the great Finnish runner of the 1920's, the "Golden Age of Sports." He was ranked with such demigods as Babe Ruth, Bobby Jones, Bill Tilden, Red Grange, Jack Dempsey, and Gene Tunney. To his countrymen he was an idol, spurring them to Olympic heights not known before or since.

Doughty little Finland, with a population

Star swimmers for the United States, Donna de Varona and Don Schollander train in the Foothill Junior College pool, Los Altos Hills, California. Donna, 17, competed in the 1960 games at Rome. She holds world records in the 100-meter backstroke and the 400-meter and 440-yard individual medleys. Don, 18, world-record holder in the 200-meter free style, is the first swimmer ever to break two minutes in this event.

then approximating Chicago's, actually matched the United States in track-and-field first places, nine to nine, in 1920—the only time this has ever been done. In three successive Olympiads, the tally was U. S. 29, Finland 24, and Nurmi collected seven of his country's gold medals.

I have watched most of the great runners of the last half century. None, in my judgment, could match the Nurmi of 1924-25.

Great Czech Seemed Dying in His Tracks

Jet-age aficionados may rate Czechoslovakia's phenomenal Emil Zatopek above the Finnish star. For stamina, competitive ferocity, and an agonized, seemingly-about-to-collapse running style that could be turned abruptly into an explosive burst of speed, he would be hard to match.

At London in 1948 I saw Zatopek win one Olympic gold medal, at 10,000 meters, and barely miss winning another at 5,000.

This half-dead-appearing runner produced his most memorable feats on Nurmi's home grounds four years later—after bald, 55-year-old Paavo ran the stadium lap with the torch lit in ancient Olympia and carried in relays to Helsinki. Zatopek obliterated Olympic records in the 5,000- and 10,000-meter races, then loped to victory in the marathon. He beat his nearest rival by half a mile and his time (2 hours, 23 minutes, 3.2 seconds) was more than six minutes faster than that of any previous Olympic champion.

Zatopek had never run a marathon in his life, and before the race he was asked if he really expected to win.

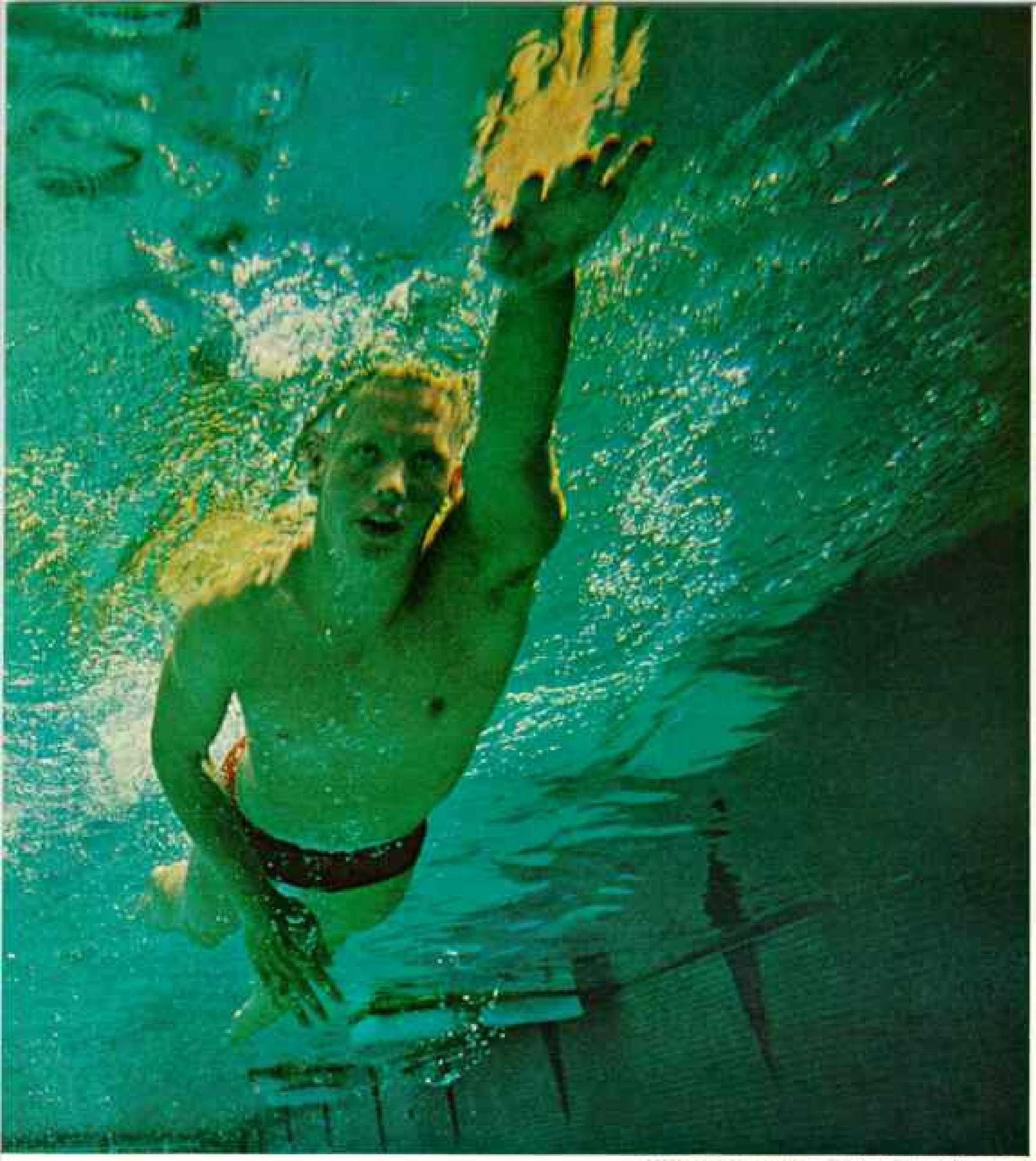
"If I didn't think I could win," he said, "I wouldn't have entered."

Afterward, as he sat calmly eating an apple and waiting for the rest of the field to finish, he said: "The marathon is a very boring race."

Not even this iron-man show could outshine the luster of Nurmi at Paris in 1924. He won the 1,500- and 5,000-meters on the same afternoon, both in record time and with rivals staggering. He was easily home first in the 3,000 meters, a team race in which he paced his countrymen to victory. He won his fourth gold medal in the cross-country, at 10,000 meters, on a scorching day, more than 500 yards ahead of his nearest rival and fresh enough to trot around the infield while other finishers toppled from exhaustion.

Paavo's star appeared on the wane when he was victorious in only one of three starts in the Olympics of 1928 at Amsterdam. Athletically speaking, he was getting old—at 31—but he was far from through.

After record-breaking comebacks in 1931, Nurmi set the marathon as his goal in the 1932 Olympics at Los Angeles. In tune-ups



PAINTING BY JACK FIELDS © NATIONAL GEOGRAPHIC SOCIETY

that year he surpassed all records for the distance, and it looked as if Nurmi would crown with triumph the most glamorous of all Olympic careers. But the powers that rule amateur athletics decreed otherwise. On the eve of the games, they rejected his entry for accepting sums exceeding his expenses during a German tour in 1931, and his career as an amateur was ended.

By Olympic rule, an amateur is "one who participates and always has participated in sport as an avocation without material gain of any kind."

Jim Thorpe was the central figure in the most famous of all Olympic disbarment proceedings. Six months after the celebrated American Indian had captured both the pentathlon and decathlon at Stockholm in 1912 (page 500), and been hailed by the King of Sweden as the world's greatest all-round athlete, the Worcester, Massachusetts, *Telegram* disclosed that Thorpe had played professional baseball in the South in 1909-10.

Thorpe admitted it, but explained that he had only done what other college boys were doing in vacation time.

"I did not know I was doing wrong," he said.

Nevertheless, Thorpe was stripped of his Olympic medals and special trophies he had been awarded by the King of Sweden and

Olympic symbol, five interlocking rings, originally represented five continents; now it stands for international friendship. Ring colors include at least one hue from the flag of every competing nation.

Let the games be truly international, urged De Coubertin, founder of the modern Olympics.

others. The Olympic records were changed to eliminate all references to Thorpe and to award first places to the runners-up.

Thorpe died at Lomita, California, in 1953 at the age of 64. Three years earlier, an Associated Press poll named him the greatest football player and the greatest all-round athlete of the first half of the 20th century. No one ever approached his score in the pentathlon —consisting of the broad jump, discus and javelin throws, 200-meter sprint, and 1,500-meter run—from the time it was introduced in 1906 until it was discontinued after 1924.

The military, or modern, pentathlon, was first held in 1912 at Stockholm. It consists of fencing, shooting, swimming, cross-country running, and cross-country riding.

In the first military pentathlon, the U. S. was represented by a young lieutenant named George S. Patton, Jr., later to achieve fame as the dashing field general of World War II. He placed fifth in a field of 32.

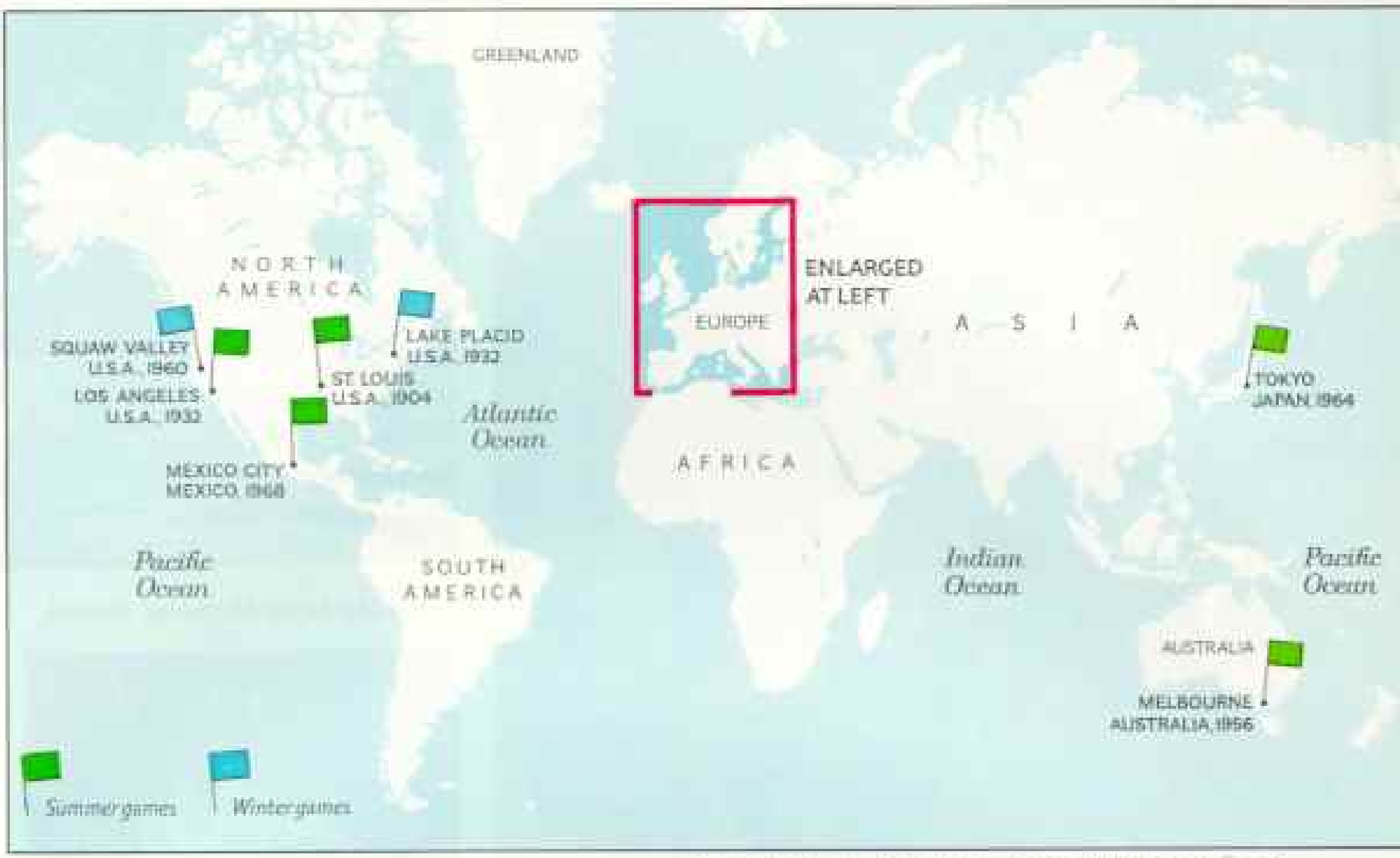
The decathlon was added in 1912, and since discontinuance of the track-and-field pentathlon it has become the standard for all-round excellence. It includes four pentathlon events—running broad jump, discus, javelin, and 1,500-meter race—plus a 100-meter sprint, high jump, pole vault, shot put, 110-meter high hurdles, and 400-meter run.

Beginning in 1932, the United States has held a monopoly of the Olympic decathlon, twice finishing one-two-three and producing the only double winner, Californian Robert Mathias in 1948 and 1952 (page 500).

Avery Brundage, the multimillionaire Chicago builder and renowned collector of Oriental art who heads the International Olympic Committee, represented the United States in both pentathlon and decathlon in 1912 and three times won the national all-round championship. Today, at 77, Avery Brundage is the powerhouse of Olympic leadership (page 512).

Officially, there is no team winner, since the Olympic fathers frown on all methods of scoring the results nationally as contrary to the spirit of the games, which are intended to glorify the athletes. Nonetheless, from the beginning, various team scoring systems have prevailed, usually to suit national customs and preferences.

Without claiming any originality or copyright, I compiled team scoring for track and field on a 10-5-4-3-2-1- basis in reporting the 1928 games at Amsterdam for the Associated Press. Others followed suit, and it is now generally considered the unofficial standard, since it has the combined advantage of putting a premium on winning the gold medal and providing a more balanced team tally.



Sites in four continents for winter and summer spectacles have made his dream come true.

Since World War II, competition in 22 sports has been standardized, from archery to yachting. At least 15 must be on an Olympic program; 20 are scheduled for Tokyo:

Sport	Present champion (based on gold medals)
Athletics (track and field)	U.S.A., men; U.S.S.R., women
Basketball	U.S.A.
Boxing	U.S.A. and Italy (tie)
Canoeing	5-way tie, men; U.S.S.R., women
Cycling	Italy
Equestrian events	Australia
Fencing	3-way tie, men; 2-way tie, women
Field Hockey	Pakistan
Football (soccer)	Yugoslavia
Gymnastics	Japan-U.S.S.R. (tie), men; U.S.S.R., women
Modern Pentathlon	Hungary
Rowing	Germany
Shooting	U.S.S.R.
Swimming and Diving	U.S.A., men; U.S.A., women
Water Polo	Italy
Weight-lifting	U.S.S.R.
Wrestling, Free Style	Turkey
Greco-Roman	Turkey-U.S.S.R. (tie)
Yachting	5-way tie

In addition, volleyball and the Japanese sport of judo make Olympic debuts at Tokyo. There will be no archery or handball.

The Olympics abound with evidence that there are no permanent national monopolies on superiority in any branch of competition.

The United States has never been beaten in basketball, but the sport has only become a fixture since 1936, and Russia, among others, has been mounting an increasing challenge in the sport an American invented.

In saber fencing, Hungary has been unbeaten since 1924. Italy has a winning streak with the épée that dates from 1932, but in 1960 Russia broke a Franco-Italian monopoly in foils competition.

There was a time when Norway dominated the Winter Olympic Games, started 40 years ago, but since the Russians entered in 1956, they have won each time.

Thus far in Olympic men's track and field, the United States has always won, by any scoring system. But the Russians have been coming up fast. In women's track and field, they took command in 1960 at Rome. Led by the redoubtable Press sisters, Tamara and Irina, they won six of the 10 events (page 509).

In the original games at Olympia, women could not participate, and those who were married could not even attend. The 2d-century geographer Pausanias tells the story of

Hurdling to an 80-meter record,

Outstriding 100-meter rivals, Wilma Rudolph sprints to one of three gold medals she won for the United States at Rome in 1960.

Flying Dutch housewife, Fanny Blankers-Koen, at London in 1948 became the first woman to win four gold medals.

Pherenice, daughter of Olympic champion Diagoras of Rhodes and doting mother of an aspirant for an olive-leaf crown. Disguised as a trainer, she accompanied her son, Pisirodus, to the games, watched his triumph, and rushed to embrace him. As she did so, her robe fell, betraying her disguise.

Because of popular sympathy and her illustrious background (her brothers, too, had been Olympic champions), Pherenice escaped penalty, but it was decreed that henceforth trainers, as well as athletes, should remain naked during the competitions.

Feminine participation in the Olympics, as in politics, was sharply restricted before World War I. Only sports considered genteel and ladylike, such as archery and lawn tennis, were permitted. At Stockholm in 1912 swimming was added, but not until 1928 at Amsterdam did women crack long-standing IOC opposition to their entry in track and field.

Far from soothing the controversy, this seemed to accelerate it. One of the five events was the 800-meter run. It was won by Germany's Lina Radke in schoolboy time (2:16.8), but so many contestants finished in distress that the event was dropped and not restored until 1960. That year it was won by a Russian

Babe Didrikson (right) wins at Los Angeles in 1932.

One of a famous sister team, Russia's Tamara Press puts the shot at the 1963 Russo-American track meet in Moscow. At Rome in 1960 she won a gold medal with a record heave of 56 feet, 9⅞ inches, while her sister Irina finished first in the 80-meter hurdles in 10.8 seconds.

On flying skates, Lidia Skoblikova of Russia takes a gold medal, one of four she won at Innsbruck in the Winter Olympics of 1964.

girl, Ljudmila Shevcova, in 2:04.3, and no contestant collapsed.

Now there are 10 track-and-field events for women, in which concessions to the presumed "weaker sex" are reflected chiefly in the hurdles distance, 80 meters instead of 110 for men, and in the shot put, where the implement weighs 8 pounds, 13.8 ounces, as compared to 16 pounds for men.

Today, women's competition is an Olympic highlight. Rivalry is keen among contestants from all parts of the world, and the caliber of performances has steadily improved, notably in swimming and track and field. At Rome, the wonderfully speedy Wilma Rudolph, 20-year-old coed from Tennessee State College, won the 100-meter dash in 11 seconds flat, which would have beaten some of the men champions in the early Olympics.

Another American girl, slim Chris von Saltza, won the 400-meter free-style swim in 4:50.6, and all six finalists were clocked in faster time than Johnny Weissmuller achieved in winning the men's 400 and setting an Olympic mark of 5:04.2 at Paris in 1924.

The most versatile of this century's women athletes was Mildred (Babe) Didrikson.

This lithe Texas girl was barely 18 when

REHEARSINGS BY ELIE SAUCIER © NATIONAL GEOGRAPHIC SOCIETY

Winning the 1964 U. S. Olympic trials, the Vesper Boat Club of Philadelphia outdistances Harvard (right) on Orchard Beach lagoon, Long Island Sound, New York. California (not visible) placed third and Yale (center) fourth. The 99-year-old Vesper Club won Olympic eights in 1900 and 1904, but U. S. collegians held a monopoly from 1920 to 1960, when Germany's Ratzeburg club triumphed. A former Ratzeburg crewman advised on training of Vesper oarsmen, who had only a month to work out as a team before the trials. All four finals crews used the new German-style shovel oars.

she entered the 1932 Olympics in Los Angeles, and if a special Olympic rule for women had not prevented her from competing in more than three individual events, she probably would have broken all existing Olympic records for women. As it was, she set new world marks for the javelin and 80-meter hurdles.

She also tied with teammate Jean Shiley in the high jump, in which both girls set a new record. In the jump-off she was disqualified because officials said her feet did not go over the bar first, but the Babe disputed this.

"I'd been jumping the same way all afternoon," she said.

Mother Gains Four Gold Medals

The first woman athlete to win four Olympic gold medals was a Dutch housewife and mother. At London, in 1948, tall, rangy Francina (Fanny) Blankers-Koen outclassed all rivals in the 100- and 200-meter dashes, raced from behind to victory in the 400-meter relay, and was pressed only in the 80-meter hurdles by Britain's Maureen Gardner.

If there is any sport which rivals the track-and-field events it is swimming, at least as far as Americans are concerned.

American interest in swimming can be traced back to the great Johnny Weissmuller, star of the 1924 Olympics. Weissmuller was both a sprint and distance swimmer, and he set world records in 67 events. Standing six-feet-three and weighing 190 pounds at his peak, he was beautifully coordinated, a dedicated athlete, and above all, relaxed.

"Even as a kid," he once said, "I didn't tense up. Not even the Olympics bothered me."

After the 1928 games, he retired from competitive swimming to become an actor. During two decades in the movies, he earned two million dollars and world-wide fame as Tarzan of the Apes. And he set something of a precedent: In 1932 Clarence "Buster" Crabbe won the 400-meter free-style race, and he, too, went on to movie fame.

Crabbe's victory brought America her only gold medal for swimming in the year in which the Japanese suddenly emerged as the best swimmers in the world. Again in 1936 the Japanese excelled in swimming events. But in 1952 they made a surprisingly poor showing, and since then Australia and the United States have dominated men's swimming.

Another of the great Olympic sports is row-

Dunking rewards coxswain Robert Zimonyi, winner in more than 200 races, who piloted Vesper's short Italian shell over the 2,000 meters in 6:01.3. Zimonyi steered Hungarian crews in three Olympics before defecting after the 1956 revolution.

ing. From 1920 at Antwerp, where the U. S. Naval Academy triumphed, to Melbourne in 1956, when Yale rallied from a preliminary setback to win the championship final, college eight-oared crews of the United States won eight Olympic titles in succession: Navy (2), California (3), Yale (2), and Washington (1). Germany ended this long dominance at Rome four years ago.

Dr. Spock Pulled an Olympic Oar

Incidentally, the young man who rowed Number 7 on the Yale crew which I saw win the 1924 rowing championship has a unique claim to fame. He is Dr. Benjamin Spock, who has since, through his best-selling books, helped millions of mothers raise their babies—perhaps including future Olympic champions.

The most durable and versatile of Olympic rowing champions was Jack Beresford of England, who won the single sculls in 1924. In his first bid in 1920 he lost a close race to Jack Kelly of Philadelphia's Vesper Boat Club, whose son also became an international rowing star, and whose daughter is Princess Grace of Monaco.

Just as there have been some controversies in the Olympics, there have been some fine examples of sportsmanship, too. For instance, after falling himself, Paavo Nurmi stopped to give a helping hand to a French rival and both rallied to finish one-two in a qualifying trial in the 3,000-meter steeplechase at Amsterdam. And, at Berlin in 1936, America's great Jesse Owens may have been saved from elimination in the broad jump through the help of his chief opponent, Lutz Long of Germany.

Owens had twice fouled out by stepping over the take-off mark and had only one more chance to qualify. His coach, Larry Snyder, urged him to move his take-off point a foot back of the mark.

The incident is still vivid in Jesse's memory, though 28 years have intervened.

"Yes," he wrote us recently, "Lutz Long assisted me in measuring the new distance, and at my suggestion he laid down my sweat shirt at the new mark. While he was helping me, he was also reassuring me, telling me that I could qualify without any difficulty. I did qualify, and I went on to break the Olympic record."

The heights of Olympic conquest have by

Main Olympic arena in Tokyo, Japan's National Stadium will hold a standing-room throng of 100,000 expected on opening and closing days, October 10 and 24. The huge bowl, completed in 1958 for the Third Asian Games, will become the principal site of the first Olympics ever held in Asia. This crowd cheers runners during Tokyo International Sports Week last fall, when the city played host to athletes from all over the world.

Touring Tokyo, Avery Brundage, president of the International Olympic Committee since 1952, reviews plans for the 1964 games with Japanese officials. In 1912 Brundage represented the United States in the Olympic pentathlon and decathlon. In 1914, '16, and '18 he won the national all-round championships in track and field.

EKTACHROME (ABOVE) BY NATIONAL GEOGRAPHIC PHOTOGRAPHER WINFIELD PARKS AND KODACHROME BY EIJI MIYAZAWA, BLACK STAR © N.G.S.

no means been monopolized by the acknowledged super-stars, such as Nurmi, Owens, and Thorpe. Olympic history is bright with the feats of athletes who have defied the form charts and conquered more-celebrated rivals by sheer drive and determination.

Triumphs of the Human Spirit

Britain's Arnold N. S. Jackson was no respecter of reputations when he bolted out of the blue to win the 1,500-meters at Stockholm in 1912, and upset, in record time, the greatest array of milers the United States ever sent to the Olympics—Abel Kiviat, Norman Taber, John Paul Jones, and Mel Sheppard.

When the husky Syracuse football halfback and sprinter, Raymond J. Barbuti, toed the mark for the 400-meter final at Amsterdam in 1928, he was given only a long-shot chance to beat Canada's speedy favorite, Jimmy Ball. But in a dramatic stretch duel, Barbuti's all-out drive lasted just long enough to stand off the fast-closing Ball. The exhausted American sprawled to the cinders as he hit the tape, a winner by inches.

The only man ever to win gold medals in both summer and winter games is Edward P. F. Eagan, and a dozen years separated his unique "double." The Rhodes scholar from Colorado and Yale won the light heavyweight boxing championship at Antwerp in 1920, and at Lake Placid, New York, in 1932 he was a member of the victorious United States four-man bobsled team. He now heads the People-to-People Sports Committee.

Most people would agree that it is preferable for East and West to test their skills on the athletic field rather than the battlefield. Even Soviet leader Nikita Khrushchev has been quoted to that effect by U.S. Under Secretary of State Averell Harriman. After they attended a U.S.-U.S.S.R. track meet in Moscow last year, Khrushchev remarked:

"This is the way to compete—not war!"

As De Coubertin said: "Peace would be furthered by the Olympic Games . . . but peace could be the product only of a better world; a better world could be brought about only by better individuals; and better individuals could be developed only by the give and take, the buffeting and battering, the stress and strain of fierce competition." THE END

CAMBODIA

Indochina's "Neutral" Corner

Article and photographs by THOMAS J. ABERCROMBIE
National Geographic Foreign Staff

"FRIEND or American?" challenged the leader of the excited crowd coming up the road. Angry faces quickly surrounded us.

"Speak!" the rabble-rouser insisted. Then, turning to his crowd, he shouted, "If it's an American, we'll fix him!"

He wore frayed tennis shoes, a cast-off olive army jacket, and baggy black trousers. But his face was not the friendly face I had come to know so well in Cambodia. His dark eyes stared boldly, narrowed with hate.

In the dried-up rice fields nearby, instructors drilled ragged ranks of soldiers in judo and bayonet. Hearing the disturbance, they turned their heads.

"Let him be, he's French," my interpreter lied loudly. I took the hint and explained, in French, that we were on the way to the rubber plantation at Chup. The mob was not convinced. We edged back to the jeep.

"Stop! Stop!" protested the mob as I started the motor. A forest of hands clung to the open vehicle and groped at the cameras and baggage. The American passport in my briefcase would quickly expose our bluff.

I remembered an outbreak of violence in Phnom Penh, Cambodia's capital, two weeks earlier when mobs attacked the American and British Embassies. The rioters ripped the 10,000-volume United States Information Service library into a cloud of confetti.

One thing was certain: This was no time for talk. The front of the jeep was still clear. I floored the accelerator and let out the clutch with a snap. Screeching tires churned up a cloud of choking dust. Yells of protest were drowned by the motor's roar.

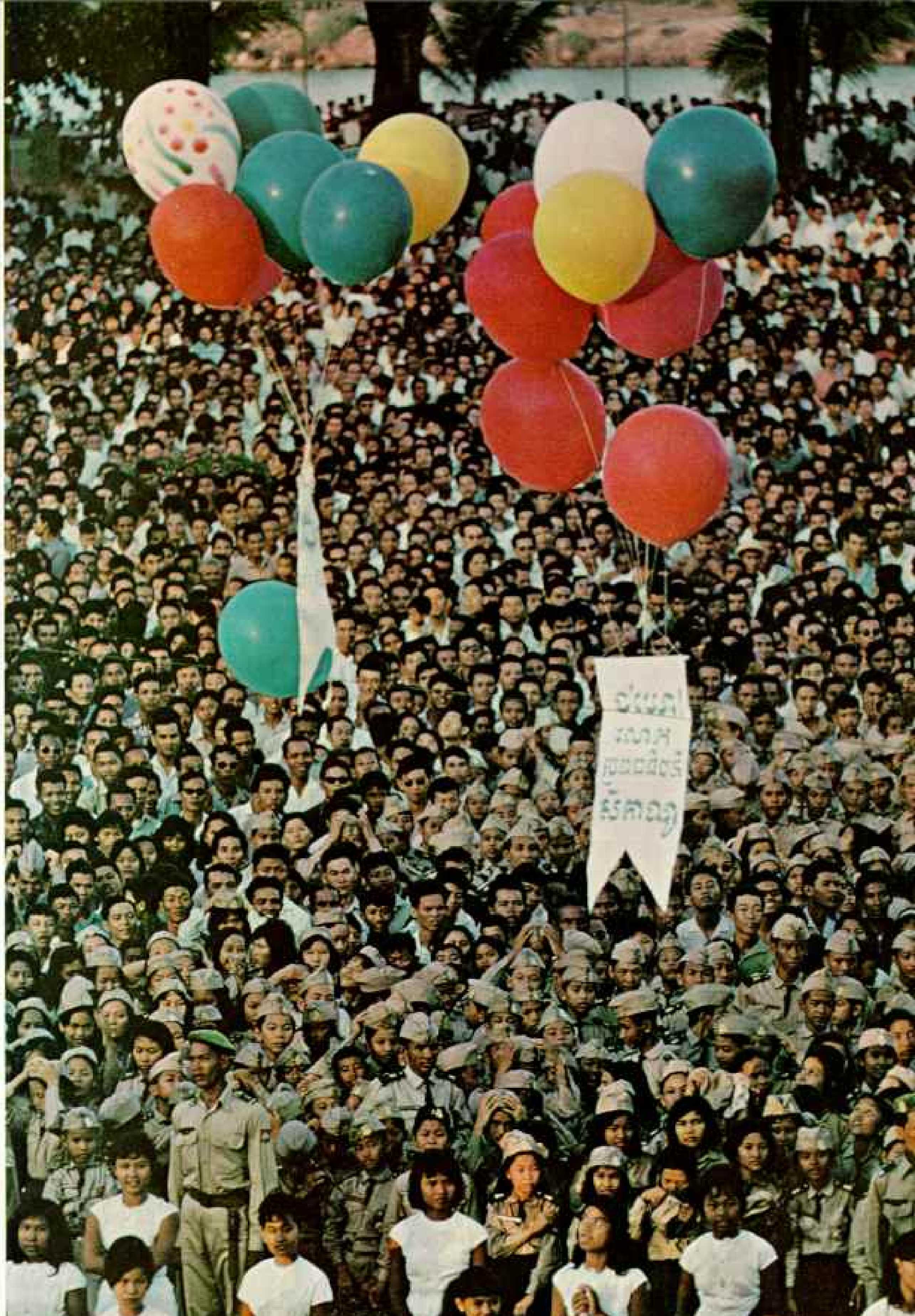
Border Attacks Inflame Emotions

"I can't believe my eyes," apologized my young Cambodian interpreter, Chea Chansarin, when I slowed the jeep. "Cambodians are just not like that."

I, too, was surprised. For three months I had traveled in Cambodia and lived among its people. I had found it a land of rice plains and hilly jungle. The fertile heart of a once-mighty empire, Kambuja, today's Cambodia is among the smallest countries in Southeast Asia—about the size of Washington State—and home of 5.8 million, most of whom are Khmer, as Cambodians call themselves.

With them I shared wedding joys and the traditional festivities of a funeral. I talked

Balloon-borne banners proclaiming "Long Live President Soekarno" welcome the Indonesian leader to Cambodia's capital. Uniformed Royal Cambodian Socialist Youth pack the front rows of this crowd outside Prince Sihanouk's palace in Phnom Penh. Under his leadership, Cambodia strives to avoid the costly wars of neighbors Viet Nam and Laos, but finds the "neutral" path winds dangerously to the left. Having renounced American aid, the country now looks to Red China and France.



Buddhist spire crowns Phnom Penh (the Hill of Lady Penh) that gave its name to the capital. *Cyclos*, or pedicabs, thread among cars along broad Boulevard Norodom.

Cyclos monopolize the morning rush hour on the Boulevard Monivong. Fares still average 10 cents. Gasoline shortages and prices—$1.50 a gallon—thin motor traffic.

with monks and bureaucrats, soldiers and doctors, fishermen and tribal chiefs. I found them a proud people but easygoing, usually smiling, always polite.

But now that was changing—for Americans at least. I watched the smiles fade to looks of distrust, sometimes of fear, as newspapers and Radio Phnom Penh increased their anti-American propaganda.

Cambodian-American relations had been steadily deteriorating since Cambodia renounced the American economic and military aid program in November, 1963.

More recently, South Vietnamese troops had chased a band of Viet Cong guerrillas across the frontier into the village of Chantrea in southeastern Cambodia. Sniping set off a street battle, and 17 Cambodians died. American soldiers had been spotted with the Vietnamese forces. Now, smoldering anti-U. S. emotions were bursting into flame. It was healthier to be considered one of the French, who long ruled Cam-

bodia and the rest of Indochina, than to be recognized as an American.

It had not been so when I first arrived in Phnom Penh one quiet Sunday last January. The city was enjoying its official day of rest. I hailed a *cyclo*, or pedicab, from the cluster at the door of my hotel.

"There is no better way to see the city," my driver assured me in passable French, "and legs are much cheaper than gasoline."

Bronze Buddhas: a Sign From the Gods

A baseball cap shaded his mocha-colored face set with bright oval eyes. His smile was his fortune—literally. Every other tooth was gleaming gold.

"Where will you go?" he asked eagerly.

"Well, where does one go on a Sunday morning?"

"To the Wat Phnom, of course." A running start and we glided into the tree-lined boulevard, pedaling east toward the rivers.

The city took shape around the famous Wat Phnom, meaning "Hill Temple." Six centuries ago, Cambodians say, rainy-season floodwaters washed a huge *koki* tree onto the hillside home of a lady named Penh. Inside the hollow trunk she found four bronze Buddhas. People saw this as a sign that the gods had abandoned their city of Angkor and floated downstream seeking a new capital.

To house the sacred bronzes, the lady built a shrine atop her hill, and a city sprang up around its base. Later, invading Thai captured Angkor. The fleeing king moved his court south, ultimately to Phnom Penh, the Hill of Lady Penh (opposite).

Today the capital wears the cloth of many cultures. Along Rue Khemarak Phoumin, I found one perfect blend of West and Orient: the Chinese sidewalk cafe. Here one can relax, light up a Mekong cigarette, sip a Communist beer from Shanghai, enjoy a French pastry or Vietnamese *sach ko ang* (bits of gingered beef and rice), or just watch the busy parade of life go by in four languages.

Our cyclo coasted on through the Chinese quarter. Nearly a third of Phnom Penh's population of 403,500 are Chinese. Together with Vietnamese importers, shopkeepers, and moneylenders, they dominate the city's—and country's—commerce. In the shops strange goods caught my eye: dogmeat sausages, incense sticks, begging bowls, silver elephants, betel leaves, Chinese comic books, brass gongs, and bamboo flutes.

Fishermen cast nets into the murky waters off the Quai Sisowath, and eyed the girls hawking lotus seeds from graceful gondolas. Teeming sampans, junks, and ferryboats curtsied at their moorings in the rolling wake of a passing oil tanker.

Phnom Penh straddles the *quatre bras*, or four arms, where the Tonle Sap and Bassac Rivers meet an elbow of the mighty Mekong to form a watery "X." Ocean steamers churn the 130 miles up the Mekong to Phnom Penh, Cambodia's No. 1 port (map, pages 522-3).

The capital has changed, but Lady Penh's Hill still glows with timeless charm. I climbed the wide stone steps to the top of the phnom. Long stone cobras with seven heads formed the swooping balustrades.

Saffron-robed Buddhist monks strolled

silently under yellow umbrellas. Old women with shaved heads wore black *sampots*, the Cambodian ankle-length sarongs, and spotless white blouses. Mobs of children romped, munching sunflower seeds and sugarcane "lollypops." Others with kites under their arms waited patiently for the wind. In a small temple, Chinese women honored ancestors by burning clusters of incense sticks.

Fortunetellers had spread their oilcloth mats with mystic books, copper amulets, powerful herbs, and magic slates.

The fortuneteller helps with important decisions. When should I move into my new house? A propitious date for our marriage? A name for a son—and an alternate to fool the evil spirits?

One seer held forth under a scowling stone lion that guarded the entrance to the pagoda. Kru Chap Touchet was his name. Kru means "master," and he looked the part. He sat with lean, ascetic body arched over crossed legs—in Cambodia, a position reserved for monks and holy men.

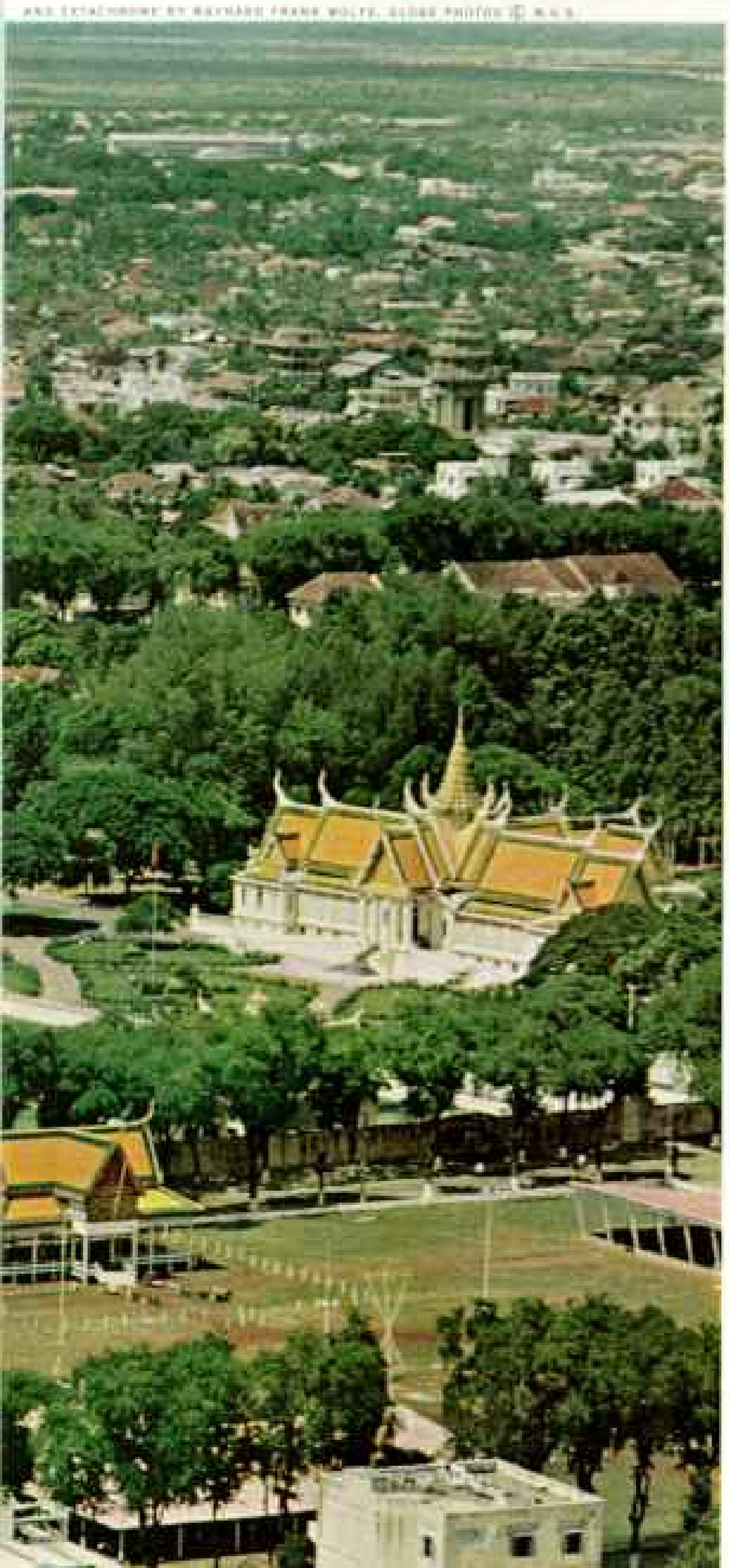
Could such a powerful diviner help a foreigner like me?

"Certainly. But first, your name?"

My reply, "Tom," impressed him. "Thom" means big, or great, in Cambodia, where names are highly important. He addressed me thereafter as Lok Thom—"Mr. Big."

"And your birthday?" he asked.

This was more difficult. Comparing my calendar with the Cambodian lunar-solar year, we finally determined I was born, auspiciously, on a red day in the second Year of the Horse. Cambodians color each day of the



Fiery Prince Norodom Sihanouk addresses a crowd in Phnom Penh. After winning Cambodia's independence from France in 1953, he abdicated two years later to plunge into politics. He became Premier, then Chief of State. Few rulers in Southeast Asia enjoy greater popular support.

Yellow roofs trimmed with stylized wooden serpents and tiered spires are traditional architecture to the 403,500 people of Phnom Penh. Throne Hall (center) is reserved for coronations. Forming a cluster to the left are the Royal Ballet and Reception Halls and the fabulous Preah Morokot Pagoda, with floors of silver tiles. At lower right spreads the Veal Men, or Royal Plain, where the National Congress meets twice a year. Beyond it stands the Royal Residence.

week. Master Touchet handed me a worn book and a small bamboo pick. "Hold the book over your head," he said. "Now pick a page."

Master Touchet opened the book and mumbled the inscription my pick had pointed out. It led him to a heavy leatherbound text he called *Khoun Teay*—Book That Tells. He thumbed through the mystic menagerie that dwelt on its brittle pages: the green-faced giant, Piphek, a necromancer from Hindu legends; Garuda, half-man, half-bird; colored elephants, and strange faces numbered like a butcher's chart. He stopped at Chak Khoun, a three-faced god who sees the past, present, and future at one glance.

"You have traveled much—you will travel more," he intoned as he chalked cryptic calculations on his slate. "Wherever you go, you will be welcomed." Except for the incident on my way to Chup, his prediction was right.

Monkey god and demon, enacting an ancient legend, duel with wooden daggers. Hideous masks and gay brocades disguise dancers from the Royal Ballet at Angkor Wat.

From his chariot, Prince Rama slashes through an army of demons to rescue wife Sita. A legend from the Ramayana unfolds in stone at Angkor Wat (page 528).

Left foot to the stomach and a boxer leaves the canvas. Elbows and knees, as well as gloved fists, are fair play in the rugged sport Cambodians call free boxing.

Fortunetellers apart, the future for all Cambodians is now in the hands of their fiery Chief of State, Samdech Preah Norodom Sihanouk Upayuvareach (page 519).

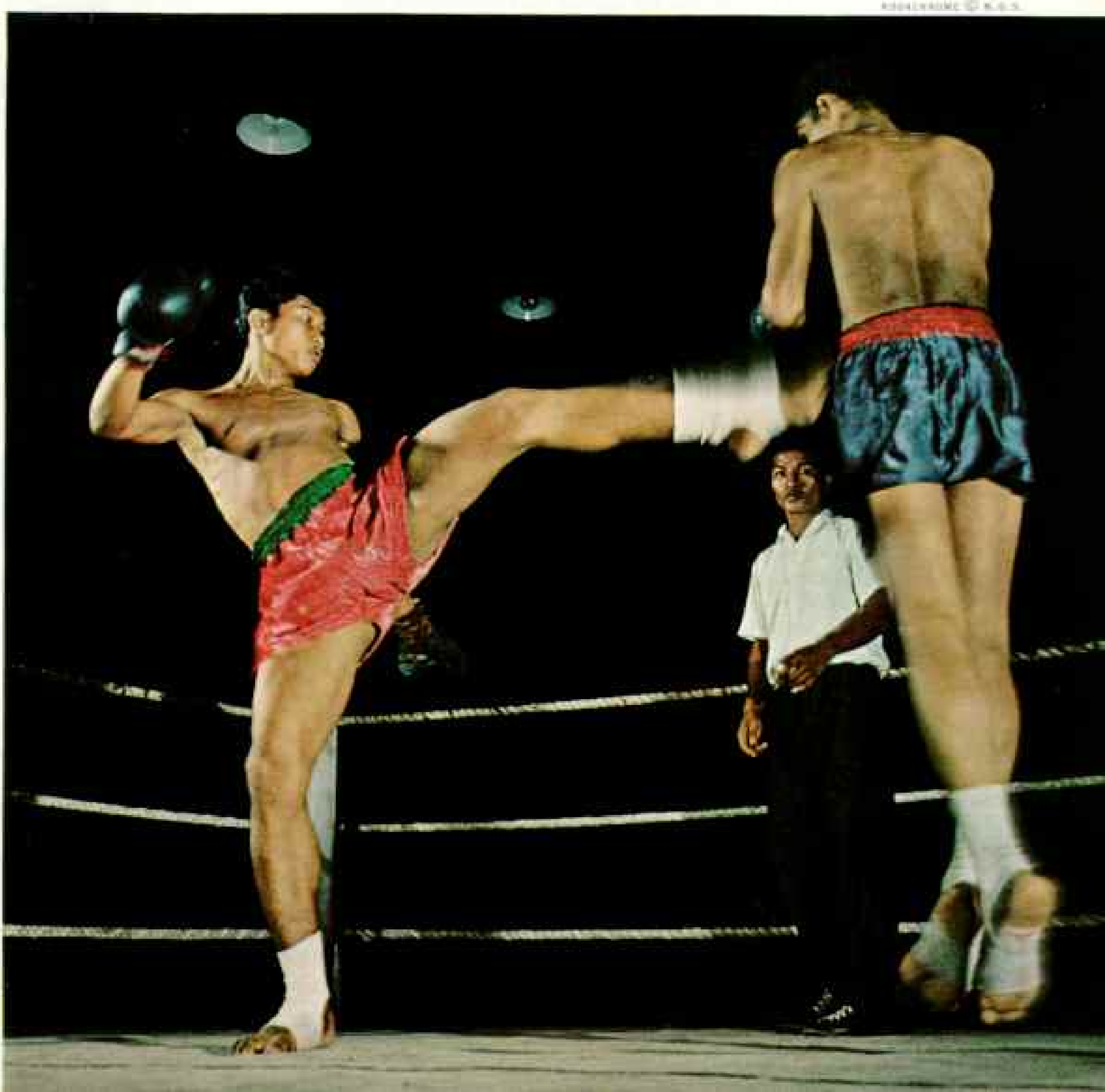
When 19-year-old Prince Sihanouk was installed as King in 1941, Cambodia had been a protectorate of France for three-fourths of a century. The royal power had become merely symbolic. Understandably, it seemed at first that the young monarch was more interested in pleasures than in politics. He played the saxophone, jumped horses, painted landscapes, even produced movies. He seemed the image of a "playboy king."

But riding the waves of nationalism that washed away France's claims in postwar Indochina, the Prince began to assert his authority. In 1953, after a series of bold political maneuvers, he finally obtained his country's freedom from France. Cambodians hailed him as "Father of Independence."

In order to plunge deeper into politics, he abdicated the throne and formed his own party, the Sangkum Reastr Niyum, or People's Socialist Community. It quickly elected him Premier—then Chief of State. Since then his support has been virtually unanimous.

His tactics on the international scene, if bizarre, have kept Cambodia out of the cruel and costly wars devastating the rest of Indochina. He has demanded conferences with U. S. participation, changed his mind, thrown over U. S. aid, and asked for more aid from France and Red China. At times he has called the Cambodian Communists "traitors," then hailed Red China as Cambodia's friend.

I wondered if Cambodia's neutrality was simply the uncomfortable interval while



deciding which side is the stronger. In this case, had the Prince already decided?

"I believe in a 'sawtooth diplomacy,' " he told me. "The path of neutrality is never a straight line."

We talked at his modest home a few blocks south of the palace. In his study the atmosphere reflected his nonaligned tastes. I sat on a Danish chair, admired a Chinese water color, sipped French champagne, and was cooled by American air conditioners.

"Cambodia still needs and wants foreign aid, but it must be free of strings," His Royal Highness went on. "The Americans have helped generously—to protect us, they say, from Red China.

"But it is Thailand and Laos who look covetously at our frontier provinces; it is South Viet Nam, aided by massive military assistance from the United States, who attacks our border villages—not Red China."

But what if the Communists overrun all Southeast Asia? Certainly the position of Cambodia—of His Royal Highness himself—would grow still more precarious.

"All the more reason to maintain strict neutrality," the Prince insisted. "If the United States withdrew, South Viet Nam would be finished. And, if you'll pardon me for saying so, I believe the battle is already lost. We want to be friends with the United States, but why can't we be friendly with China at the same time?"

In one of his speeches, the Prince had perhaps best explained the plight of a small nation caught up in the cold war.

"When two elephants are fighting, the ant should step aside."

Cambodia has not always played the role of an ant in the path of elephants. No country in Asia possesses prouder monuments to past greatness.

Rising out of the dense jungles 150 miles northwest of Phnom Penh stand the ruins of the ancient Khmer capital, Angkor.

Khmer civilization crystallized in the sixth century with fusion of two Indianized states, Chenla, in the Mekong Basin, and Funan, in the hilly south. Two hundred years later the Angkoran era began, and the Khmer Empire flourished for six centuries. At peak the empire

CAMBODIA

THE SPLENDOR of jungle-choked temples, such as the noble ruins at Angkor, tells of 12th- and 13th-century glory when the god-kings of the Khmer ruled an empire that reached from Burma to the South China Sea. Today Cambodia, rich in rice and rubber, is a land of farmers living in thatched stilt houses clustered around the village pagoda.

Most of the population dwells along the shores of the Mekong River and Tonle Sap (Great Lake). Since the country gained independence from France in 1953, its capital has blossomed into a cosmopolitan city.

OFFICIAL NAME: Preah Reach Ana Chak Kampuchea (Royal Kingdom of Cambodia). **GOVERNMENT:** Constitutional monarchy since 1947. **AREA:** 66,606 square miles. **POPULATION:** 5,800,000, including a minority of about 800,000 Chinese, Vietnamese, and Europeans. **LANGUAGE:** Cambodian; French widely used. **RELIGION:** Hinayana Buddhism. **ECONOMY:** Rice culture main occupation; fishing and forestry. Industry small but growing. **EXPORTS:** Rubber, rice, corn, cattle. **MAJOR CITY:** Phnom Penh (population 403,500), capital and major river port. **SEAPORT:** Sihanoukville. **CLIMATE:** Monsoonal. Rainy season, June-November. Average daily high at Phnom Penh near 90° F., and average daily low near 74° F.


GULF OF TONKIN
NORTH VIET NAM
SOUTH CHINA SEA
SOUTH VIET NAM
CAMBODIA
HAINAN
Plain of Jars
Vientiane
Nong Khai
Udon Thani
Nakhon Phanom
Thakhek
Sakon Nakhon
Savannakhet
Khon Kean
Kalasin
Roi Et
Yasothon
Ubon Ratchathani
Sisaket
Buriram
Surin
Pakse
Bolovens Plateau
Dangrek Range
Vinh
Ha Tinh
Dong Hoi
Cease fire line, July 22, 1954
Quang Tri
Hue
Da Nang
Hoi An
Quang Ngai
Kontum
Pleiku
An Nhon
Qui Nhon
Song Cau
Tuy Hoa
Ban Me Thuot
Nha Trang
Da Lat
Phan Rang
Phan Thiet
Bien Hoa
Saigon
Vung Tau
Go Cong
My Tho
Can Tho
Rach Gia
Long Xuyen
Vinh Long
Khanh Hung
Quan Long
Vinh Loi
Con Son Islands
Phnom Penh
Kompong Cham
Kompong Chhnang
Kompong Thom
Battambang
Pursat
Siem Reap
Angkor (Ruins)
Kampot
Sihanoukville
Kompong Som Bay
Ha Tien
Phu Quoc I.
Cardamom Mountains
Mekong River Delta
S I A M
STATUTE MILES
0 50 100
Elevations in Feet
Soundings in Fathoms
Port Depths in Feet
Airfields
Map by Ted Dachtera and George J. Khumbahador
© National Geographic Society

included not only Cambodia but much of present-day Thailand, Laos, and Viet Nam.

Not until 1432, after their enemies the Thai had sacked the capital, did the Khmer finally abandon Angkor.

Today tourists land at nearby Siem Reap airport to take guided tours, swim in ancient reservoirs, watch Cambodian ballet, and buy gaudy miniatures of Angkor's sculptures.

Impatient to see the ruins, I drove northward from Siem Reap with my friend Lo Nguy, a young student of archeology working in the Office National de Tourisme. We stopped near the south gate of Angkor Thom, literally, "Great City." And great it was!

A wide moat and wall outlined the precincts of the long-dead metropolis, a giant square two miles on each side.*

We walked across the wide moat, choked with blossoming lotus. A few yards away a

*See "Angkor, Jewel of the Jungle," by W. Robert Moore, NATIONAL GEOGRAPHIC, April, 1960.

Sundown silhouettes a sugar harvester near Kampot. Mornings and evenings he scrambles up rickety 50-foot poles to collect juice from flowers of toddy palms. Bamboo pails hang from his belt.

boy scrubbed and splashed a dusty elephant. On each side of the causeway, rows of melancholy sandstone giants bearing the long body of the serpent Vasuki formed guardrails.

God-king Guards a City Gate

The gate, tall and massive, was guarded by four giant faces of Lokesvara, or future Buddha, smiling enigmatically from the tower.

"Some say they are likenesses of King Jayavarman VII, the builder of Angkor Thom," said Nguy. "The faces, staring north, south, east, and west, symbolize the all-seeing power of a god-king."

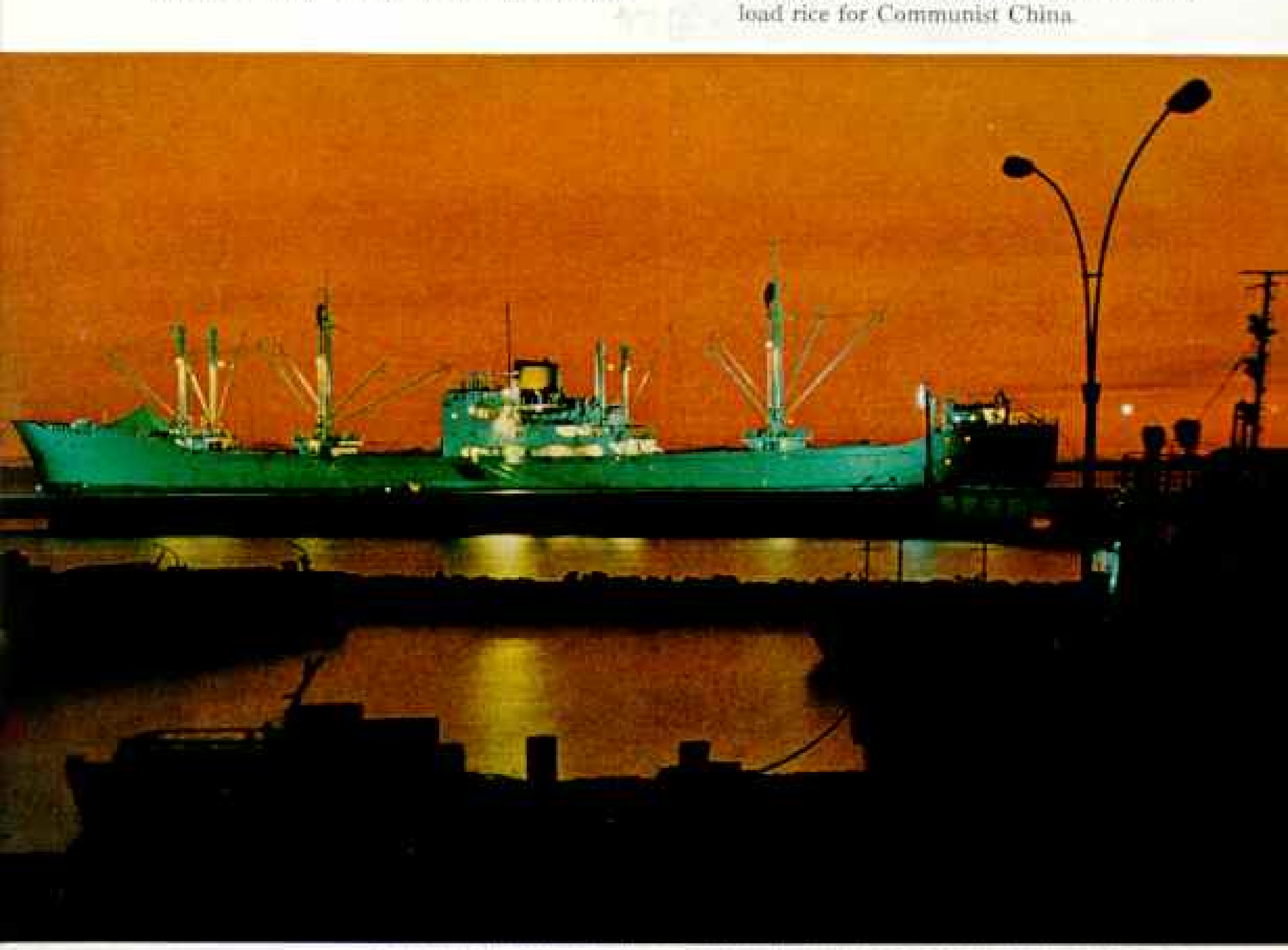
The last tourist bus had left when we reached the center of the dead city. Except for the wind rippling the silk-cotton trees and the far-off jabber of gibbons, all was quiet.

Before us stood the Bayon, a tower of towers, blue and gray in the moonlight. Nguy led me through its maze, up steep, narrow stairways, across ruined vaults and galleries, past tumbled cells and broken columns. Where kings and high priests once prayed and made their offerings, bats fluttered unseen in the tumbling shadows.

"The bas-reliefs of the Bayon give us one

Carnelian smile glitters in a farmer's mouth. Tradition regards white teeth as bad luck. Cambodians darken them with betel nut or use gold and gems.

French-built pier at Sihanoukville on the Gulf of Siam is Cambodia's only deep-water port. Ships from France and Sweden, lighted against a copper-colored tropic twilight, load rice for Communist China.



Kaleidoscope of cultures

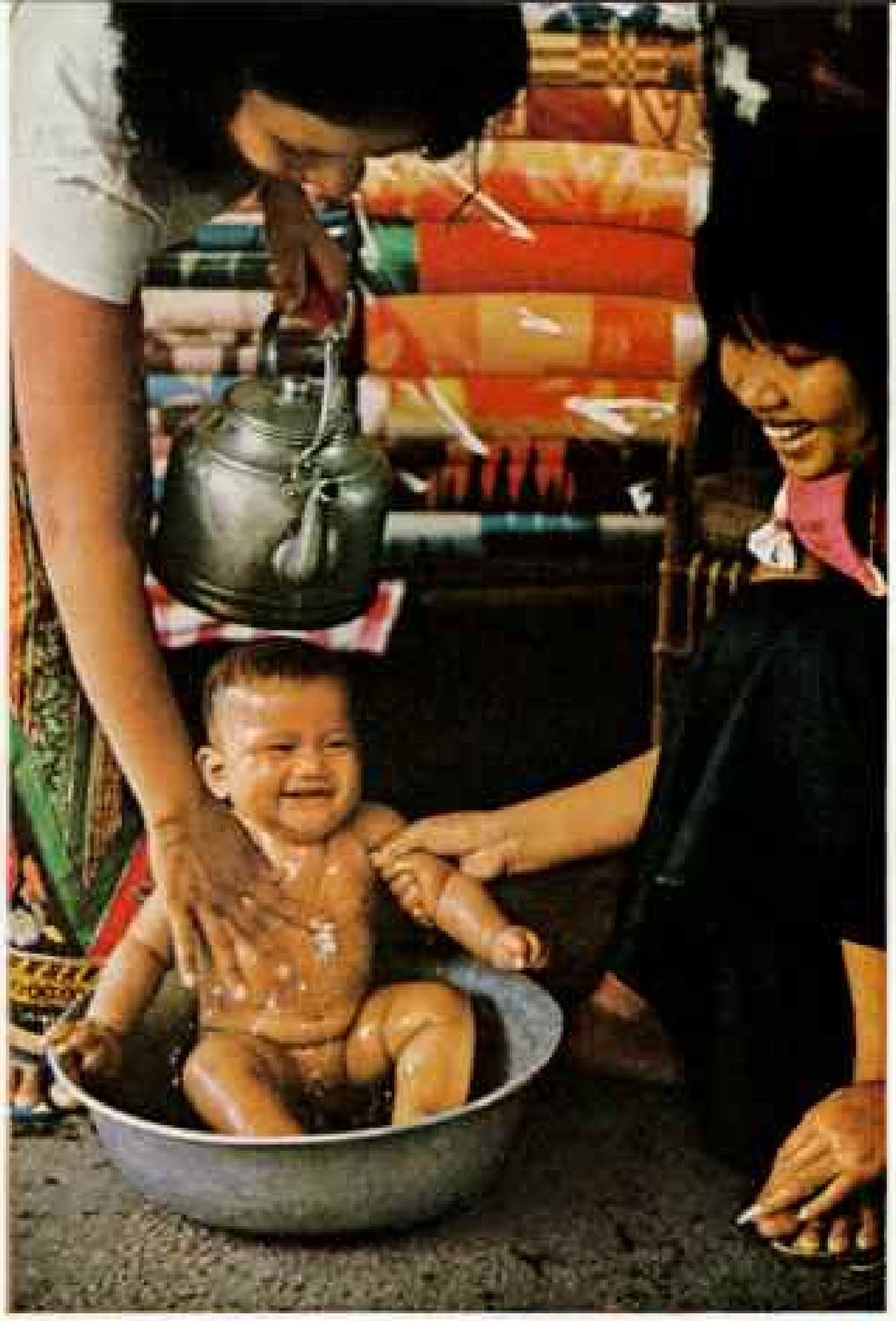
NIMBLE FINGERS pluck an eight-stringed *gorez*. Khmer-Loeu hill-tribe boy plays in his hut near the Laotian border. Gourd held against chest amplifies the monotonous melody.

Bath in a basin delights a healthy boy of Phnom Penh; mother pours from her kettle.

Bountiful rice crop piles up in a Chinese-owned mill near Battambang (lower left). Porter balances a 200-pound bag with his hook.

Barefoot lumberjack crosscuts a sunken log near Phnom Penh. He lives with his family in the palm-leaf shelter on a giant raft floating down the Mekong River from forests around Kratie. Bamboo trunks buoy hardwood logs.

Chopsticks fly as boys lunch outside their home in Phnom Penh's Chinese quarter (pages 544-5). Almost a third of the capital's residents are Chinese; they control most of its shops and trade. Rarely holding citizenship, they maintain their own language, customs, and schools.



of the best pictures of everyday life at Angkor," explained Nguy, leading me along an outer gallery.

Etched in the chalky moonlight, the carvings told their story. Fishermen cast their nets; women wearing sampots haggled in the market place; builders hewed timbers and carried palm-leaf thatch; others drove wooden oxcarts, or cooked rice and fish on spits.

What had happened to this once-powerful race?

"Just look around you—in any village in Cambodia," said Nguy. "Kings have come and gone, but life for the villager has changed little over the centuries."

And what of the pomp and ceremony of great kings and generals on the biggest bas-reliefs? Surely they were gone forever.

"Come to Angkor Wat tomorrow night," said Nguy. "You may be surprised."

Ancient Angkor Lives Again

The greatest single attraction in the venerable Khmer capital will always be Angkor Wat, which means "City Temple." It was here that Khmer art reached its peak (following pages).

Its size alone is staggering. The 2½-mile-long moat that surrounds it could easily encompass the entire Vatican City, the Acropolis, the Roman Forum, the Pentagon, and Yankee Stadium—leaving room in the inner courtyard for three U. S. Capitol buildings!

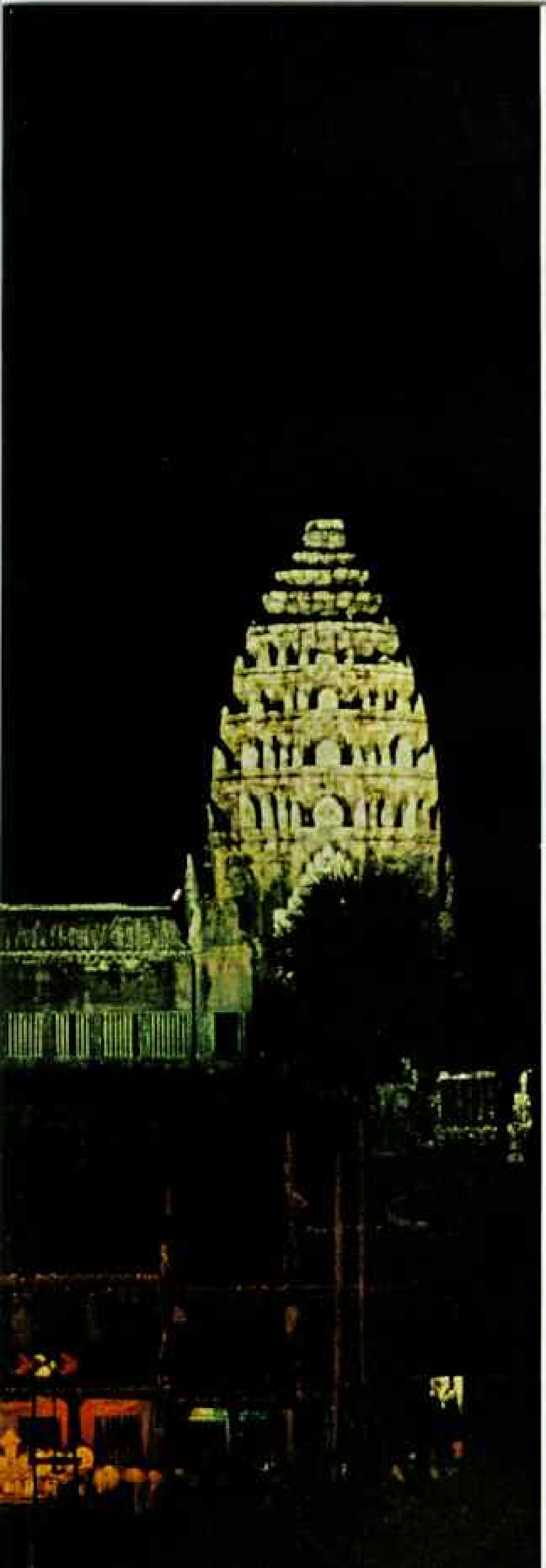
But the details of its Oriental beauty, not its size alone, mark Angkor Wat as a temple of temples.

Behind tiers of ornamented galleries, the perfect symmetry of its five lotus-bud towers soars gracefully 215 feet above the jungle. Graceful bare-breasted *apsarases*, or heavenly dancers, adorn walls and pillars. Heroic legends from the Hindu Ramayana and Mahabharata unfold in a half-mile-long bas-relief—glorious legends in sandstone polished by centuries of pilgrims' fingertips.

For a week, carpenters had been building a stage in front of the main portico, electricians had laid miles of cable, and dancers had rehearsed for a royal show.

Prince Sihanouk was coming. Once more, if only for a few hours, the King of the Khmer would hold court at Angkor.

Night fell. Along the broad causeway a thousand lights flickered—kerosene lamps carried by small boys, lighting the way for



tourists and the idly curious thronging to see the spectacle.

"*Bonsoir, lok!*" (Good evening, mister) shouted one anonymous lamp bearer in a mixture of French and Cambodian, and followed me across the moat.

Cheers greeted the Prince and his party. The orchestra of gongs and flutes and one-stringed violinlike *tros* began to play.

Angkor's sculptures seemed to come to life as the Royal Ballet swept in from the shadows. Dressed in shimmering brocade sampots, sequined jackets, and tall golden helmets, the girls moved through a forest of swaying gilt fronds (following pages). From a silver cup they tossed white rose petals on the royal party, singing:

"We are members of the great family of Asian nations. Each petal is a wish for happiness."

Flag and Anthem Praise Famed City

After the dancing, fireworks exploded into the sky, lighting every corner of the temple and flashing split-second impressions of the mixed crowd around me: a woman with shaved head nursing a child; a royal guard with white jacket, baggy brocades, and spear; a saffron-clad monk.

I half expected the Prince to be carried off in a golden palanquin under red parasols with golden handles. So traveled ancient Angkor's kings. Instead, clad in a dark business suit, he sped off in an American limousine. The tourists trudged back to their air-conditioned hotels.

But, to emerging Cambodia, Angkor is more than just an artistic marvel. It is a symbol of greatness. The Cambodian sees it every day on his country's flag and hears its glory sung in the national anthem.

When French naturalist Henri Mouhot discovered Angkor in 1860, he asked who had built these magnificent temples. The

Floodlights Gild the Lotus-bud Towers of Angkor Wat for a Royal Reception

King Suryavarman II raised this majestic temple in the 12th century, when Cambodian art attained its peak. The shrine is the best preserved of Angkor's monuments. Bathed in color, the entrance becomes a stage for the Royal Ballet, calling to mind days when the talented Khmer ruled the city. Abandoned in the 15th century, Angkor Wat was reclaimed from the jungle only a century ago.

answers were vague: "It is the work of giants," and even, "It made itself."

I put the same question to a young Cambodian schoolteacher. His answer was precise. "We built it."

Lake Benefits Farmers and Fishermen

South of Angkor lies Tonle Sap (Great Lake), for Cambodia a double bounty: It's an automatic irrigation system, and it teems with fish—after rice, the leading crop.

During the rainy season, from June to November, the Mekong River rises as much as 45 feet, actually reversing the flow of the Tonle Sap River back into the lake itself.

The lake, about 200 square miles in area during the dry season, swells to fifteen times its normal size, flooding rice fields around its broad basin. Shrinking back, it leaves rich silt and a new crop of flopping fish in every pond and ditch.

The Cambodian farmer is a fisherman too. I saw families armed with nets and wicker scoops seining fingerlings from the tiniest puddles. Others waded about to pluck the tenacious mudskipper fish that survive low water by burrowing into the mud.

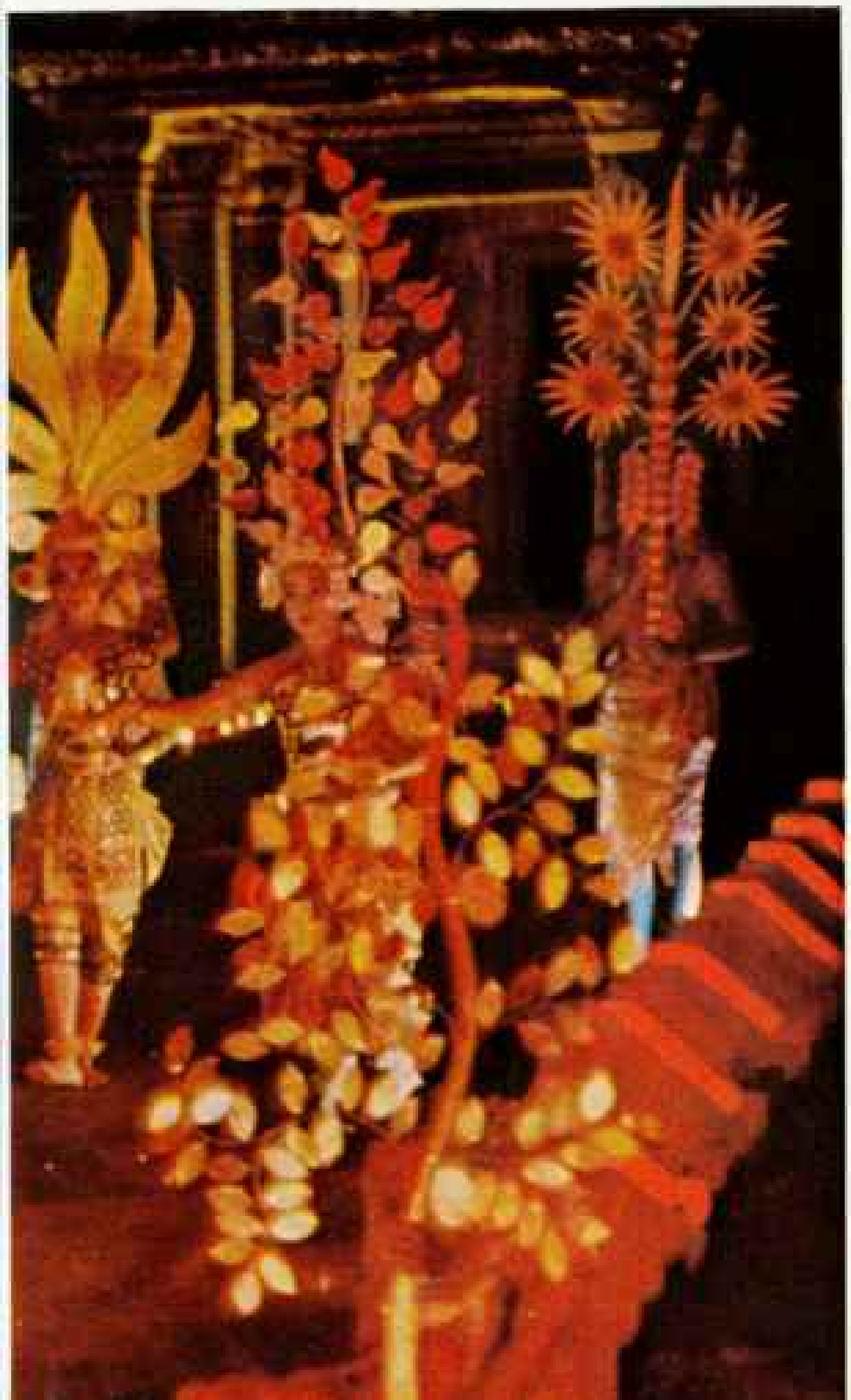
On the lake itself I saw the big fish harvests. Where the Siem Reap River meets the lake, I hired a long pirogue reminiscent of a Venetian gondola. My gondolier was lean, cheerful Wan Meun. His body was tattooed with Buddhist prayers and animistic symbols. He sculled skillfully along the winding channel through the mangrove swamp that guarded the lake.

Traffic was heavy. We dodged sampans, saucy motorboats, ungainly junks, brightly painted packet boats.

We passed an old man and his wife paddling their house and garden. The clumsy raft of bamboo was perhaps 20 yards long and buoyed with oil drums. The decks were plastered with drying fish. Herbs and vegetables grew in pots all around.

"It is what we call a *trung trei*, or fish farm," Meun explained. Beneath the raft hung a big live-box. Captive smaller fish, fed

Beauty into beast. A young dancer near the entrance to Angkor Wat prepares to put on the mask of Yeaksa, a red-faced prince. She takes four hours to sew on her costume of velvet and silk.



Graceful fingers and hands mark the Royal Ballet; footwork plays a minor role. Tall helmet and jewelry may weigh 15 pounds. Princess Bupphadevi leads the troupe in a dance of welcome.

for a few weeks on corn mush, grew profitably fat. An estimated 40,000 families earned their livelihood from the huge lake, living in such houses afloat or on stilts.

Out on the lake we stopped at a miniature stilt house trimmed with red-and-white flags.

"The temple of Takang, patron spirit of fishermen," said Meun. He left three sticks of smoking incense, assuring us a good day.

We approached a long bamboo fence that led across the flat misty water to a cluster of boats, mere specks, at the far end. It was a giant fish weir, shaped like an arrow, nearly a mile long. Around us scores of other giant "arrows" bristled from the shore.

Aboard one of the boats, owner Louk Rom shouted orders to his crew. They swam inside the weir, laughing, splashing, and driving the fish into the big trap at its point. The frenzied fish flopped desperately, some leaping six feet through the air trying to escape (pages 534–5).

With a washtub-size wicker basket and a hoist, men scooped for an hour to pour the shimmering harvest into Rom's boat.

"The Tonle Sap is one of the richest fishing waters in the world," said Rom. "The traps are always full—but not so our pockets.

"Chinese moneylenders buy up government fishing concessions and lease them to us—at their price. Since they control the market, we must sell at their price."

We roasted a plump *trei chkowk*, a sort of lake chub, over charcoal in the stern of Rom's boat, scooping up the delicious white meat and boiled rice with our fingers.

Rom's barge was full of squirming carp, chub, and eels. Next morning he would start the four-day trip to Phnom Penh's markets. I think he looked forward to the journey.

"We may never grow rich," he admitted, reaching for another steaming morsel, "but Takang will never let us go hungry."

Model Farmers Learn New Skills

A short way inland men and women were cutting a field of winter rice with sickles. It had been a good season, even if sheaves seemed scant and spare, and some fields hadn't even been planted.

"Rice is rice," said one old man, bent and crooked as his sickle, but still cutting his share, "and our bowls are always full." Such, it seemed to me, was Cambodia's national attitude: the quiescent life, the resignation of Buddha. A boon? Perhaps. But it was also a bane to progress.

I found one place doing something about it: the Station Génétique du Riz in Battambang, capital of the rice-bowl province in northwestern Cambodia.

"Seed selection is the first step to a better crop," said station director Meas Chhuth. "The average farmer today harvests little more than his grandfather did a century ago; usually only enough to feed his own family. But we are starting some new trends. We are teaching more than 3,000 model farmers throughout the province that, by using a little modern science, they can harvest profitable surpluses."

Profitable to the country as a whole, too, I thought. Rice provides Cambodia with more than a third of its foreign exchange.

"But to compete for overseas markets, quality is as important as quantity," Mr. Chhuth cautioned. His desk was stacked with sheaves of rice—bound, sorted, and labeled.

"The Cambodian housewife prefers the smaller-grained rice, considered inferior in Europe. So we've developed larger varieties for export. This is our best."

He handed me a sheaf. It bent from the weight of its plump kernels. A small bamboo tag identified it: "F3C81.5, type Sihanouk."

Beans Augment Bumper Rice Crop

A bouncing, dusty half-hour jeep ride brought us to one of the model farms. Its owner, Mr. Um Sunly, greeted us wearing an American-style sport shirt and a French beret. He was larger than the average Cambodian and burly as a water buffalo. It was near the end of the dry season, between crops. We had time to talk.

We climbed the steps of his house, set high on mangrove piles. Banana trees and a young lemon grove shaded the front yard.

Like so much of Cambodia's arable land, many of Mr. Sunly's 75 acres had long lain fallow. Four years before, he decided to put it to work and came to Chhuth's office.

"At first I had doubts," he admitted. "But I bought some better seeds. Mr. Chhuth showed me how to make compost fertilizers; the soil here is generous, but it needs help. Commercial nitrates are scarce and expensive.

"Water was a problem; I was at the mercy of the rains. So with hired coolies I dug a canal to the river a mile away and built dikes. With poisons we attacked locusts and mice. Last year we put in a dry-season planting of mung beans to build soil nitrogen.

"Of course a man can just broadcast a bag of seed rice and let the rain do the rest. It's an easy harvest—but a poor one. No more than half a ton per acre." He smiled.

"Last year I got *four* times that—plus a bonus of beans to market!"

With his profits Mr. Sunly has bought a small diesel irrigation pump and talks about a tractor next.

Serpentine Banyan Tree Binds a Serene Stone Giant With Wooden Fetters

Deserted for centuries, Angkor battled the invading jungle. Vines and roots pried stones apart, toppled towers and vaults, and heaved pavements; forests choked moats and canals. This Lokesvara, or future Buddha, guards a gateway to Ta Som Temple.

All over Battambang Province I saw tractors kicking up dust. Along the highways, others headed toward the mills, towing trailers heaped with bulging bags of rice.

At the Ministry of Agriculture's mechanized research station at Thmar Kol, I watched tractors in action, nine at a time, plowing in echelon across the 3,000-acre spread.

Enthusiasm for Interview Vanishes

I was keeping a late-afternoon appointment with the farm's genial director. But when I told him I was an American, his smile vanished. When I told him I was a reporter, he himself vanished, saying he was not really the director at all.

A young assistant apologized. "It is the times. Recently the radio has warned the people to be on guard for Western journalists."

The message struck home. I was one of the few Western journalists in Cambodia.

The tractors (eight Yugoslavian Zadrugars and an American Massey-Ferguson) roared in one by one for refueling and a crew change.

"We haven't licked all the problems," the assistant said. "The Yugoslav tractors sometimes boil over in the 110° heat. For spare parts, we must depend on our blacksmith shop. Harvesting machines that work well in Europe or America bog down in the mud here in Cambodia.

"Still, we've already proved our machines can produce better rice, cheaper."

Few farms in Battambang can support a tractor; 80 percent are smaller than 10 acres. So a man with a tractor rents it out to others. The system is catching on.

"In 1957 there were only 20 tractors in

the province," the assistant said. "Today more than 600 are used by farmers."

It was dark when I left the research station. Dust dimmed the tractors' headlights as they worked on into the night.

Boxing Draws Crowds in Phnom Penh

I returned to Cambodia's capital, which seemed almost sedate by contrast. No roaring tractors here; in fact, not even much automobile traffic. Since American aid had been cut off, gasoline had become too scarce. Much of Phnom Penh's quiet night life centered at the Bar Jean, where one could join the French colony for an evening of good food mixed with talk of better days. Or one might sample Vietnamese dishes at the Lotus d'Or, a floating restaurant originally built as a movie set.

But almost every weekend, banners stretching across Rue Khemarak Phoumin summon sports-loving Cambodians to some exciting event: a soccer game, a basketball game, or a Cambodian boxing match.

With nets and wicker scoops, farmers scour a flooded field for fish. During the dry season, receding floodwaters leave fish flopping. Sloughs yield catches until the last puddle evaporates. Then children wade into the muck to pluck out tenacious, burrowing mudskippers.

Trapped fish leap frantically in a bamboo weir on the Tonle Sap, one of the world's richest fishing grounds.

On championship boxing nights, streets are blocked off around Phnom Penh's arena; seats are jammed from ringside to rafters.

Drums beat and reed flutes wail the signal to start the match. The boxers climb into the ring, wearing regulation trunks and gloves—but no shoes. Before the fight, each boxer performs his special solo dance-prayer.

Tonight one does a graceful ballet interpretation of the boxing art; his opponent, less animated, prostrates himself on the canvas.

I ask why the bouts are scheduled for only five rounds. Beside me, Capt. Sisowath Kussarak, president of Phnom Penh's Club de Boxe et Judo, replies:

"This is twice as tough as your English boxing. Five rounds are plenty. Not many matches last even that long."

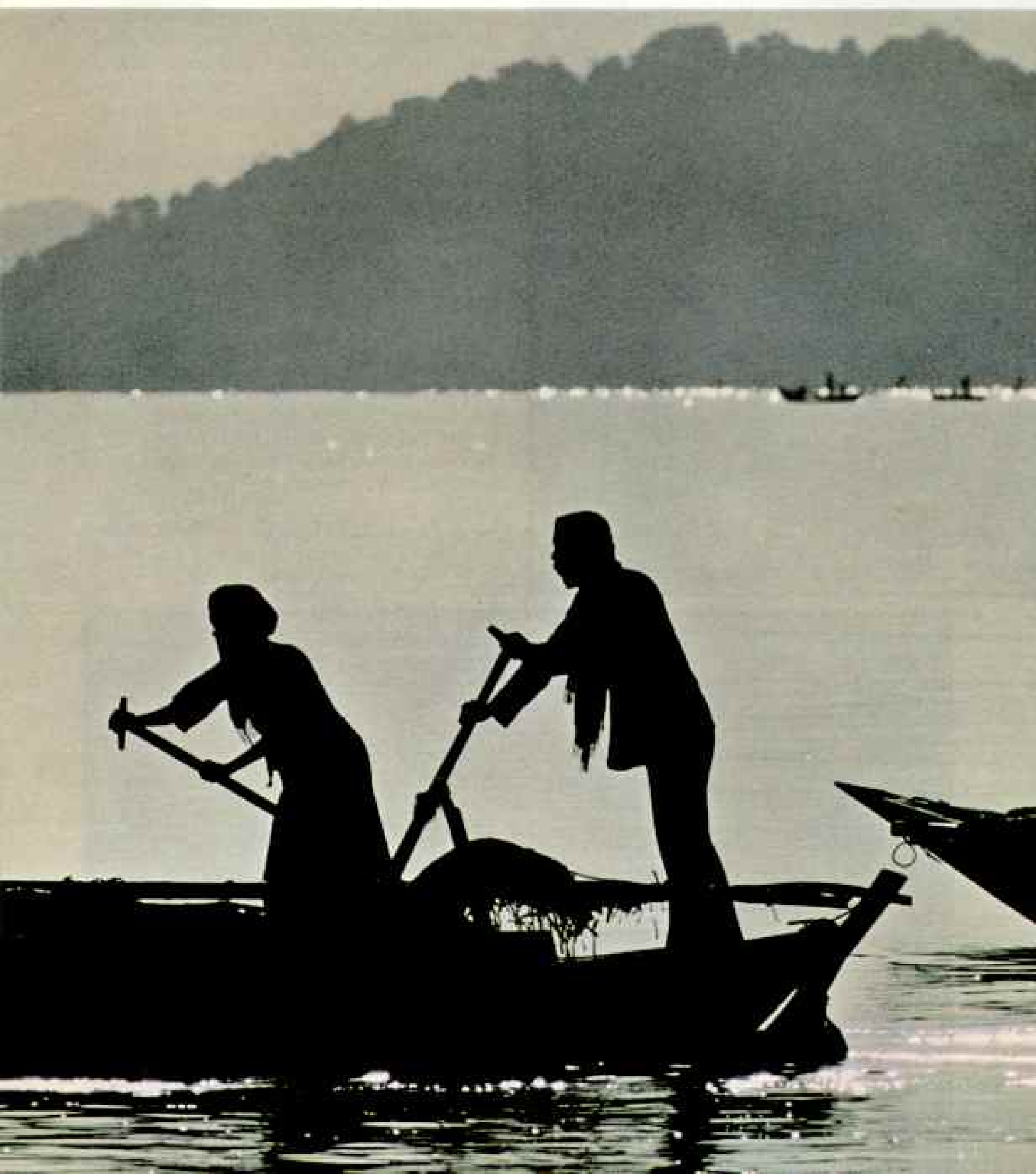
Bong! Round one.

Right cross!

Left foot to the stomach (page 521).

Left elbow to the face!

"Cambodian boxing originated before the days of Angkor," Captain Sisowath explains



in scholarly fashion. "To settle disputes, our ancestors strapped iron spurs to their hands and feet and fought to the death."

Bong! Round two.

Right heel to the head.

Left jab. Another left jab.

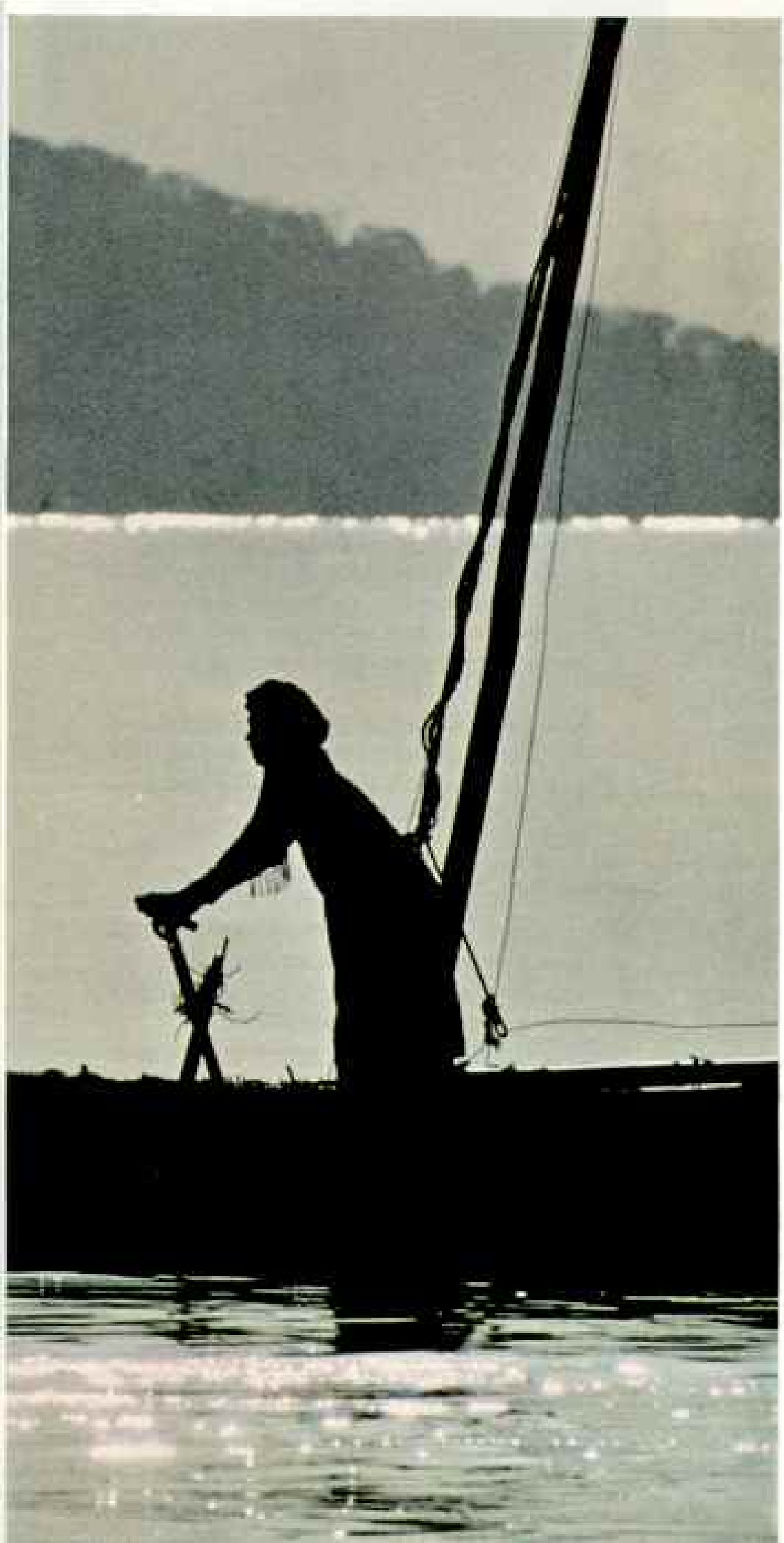
The featherweight in red trunks begins to waver. On his biceps he wears copper bracelets. I ask why.

"Good-luck charms," Captain Sisowath explains to me. "Boxers are a superstitious lot—there's no harm. Of course we make sure they're wearing no talismans in the gloves."

Bam! A solid right foot to the jaw knocks red-trunks through the ropes. The match is over. The crowd is wild. A few spectators wave 100-riel notes—worth about $3.00—in the air. The victor trots through the aisles collecting his bonus for a good fight.

After savoring the capital's recreation, I drove south on the 133-mile Cambodian-American Friendship Road to the country's only deep-water port, Sihanoukville.

The road project was not quite finished be-



PHOTOGRAPHS © NATIONAL GEOGRAPHIC SOCIETY

Comely visitor from Phnom Penh bargains for seafood at Kep, a resort on the Gulf of Siam. Thirty riels (about 90 cents) buys a feast of crabs and lobsters.

Pirogues Scull in Slow Motion Across a Sea of Sparkling Silver

Fishermen glide into Kep with their catch of lobsters. Silhouetted in the misty dawn, Antay Island rises in the distance.

fore American AID teams were sent packing last January. It cost more than $30,000,000 to push the broad highway through unmapped jungles of the Cardamom Mountains into the coastal lowlands of Kampot Province.

I passed evaporation pans along steaming tidal rivers, where women in conical hats raked up conical piles of sea salt. On ten-foot trellises stretched ripening rows of Kampot's black pepper. If Kampot is hot and dusty, I thought, at least it has flavor.

End of Aid Leaves Port Deserted

The newly built town of Sihanoukville and the beautiful tourist beach nearby seemed quiet and deserted, as did the port itself.

French engineers completed the pier in 1960. A concrete arm, bent at the elbow, reaches half a mile into the Gulf of Siam, with dockage for four 10,000-ton vessels. It was bare except for one last American bulldozer, half-crated, awaiting a ship.

"Before American aid stopped, a ship had to wait a day or two for a berth here," the harbor pilot, a Frenchman, told me. "But nowadays—well, I haven't seen a ship for more than a week. All our longshoremen have gone back to their fishing nets."

A serious effect of the economic-aid cutoff was Cambodia's shortage of foreign exchange. The price of gasoline had already doubled to $1.50 a gallon. Imported foods such as canned milk and French cheese were scarce. Lack of structural steel slowed building projects.

Before I left next evening, two freighters eased in to load rice for Red China. They came without cargo (pages 524-5).

Cambodia's export trade today hangs on rice, corn, and rubber.

In 1921 the French first began planting rubber in the fertile red basalt soils of the Chup plateau, northeast of Phnom Penh. Today Chup is one of the world's biggest rubber plantations. Stately trees spread in perfect rows over 80 square miles.

"We have more than 7,000,000 trees in our garden," said Jean-Pierre Lobrecht. He and 30 other French administrators and engineers run the sprawling plantation.

"It's almost a little country within a country," Lobrecht went on. "We run our sawmill, schools, pagodas, markets, a dairy—you must try some of our cheese—hospital, and repair shops for a fleet of a hundred tank trucks for transporting liquid latex. About 10,000 workers live in villages scattered throughout the plantation."

That's one man for every 700 trees, I calculated. No wonder the forest seemed deserted.

Driving down one long row, I finally found a workman trimming a razor-thin slice off one carefully scarred trunk. It began to bleed white into a small cup (page 541).

He washed his hands for lunch with a dab of latex, letting the gooey liquid dry, then peeling it off. The last speck of grime came off with it.

Vietnamese Looks for Peace in Cambodia

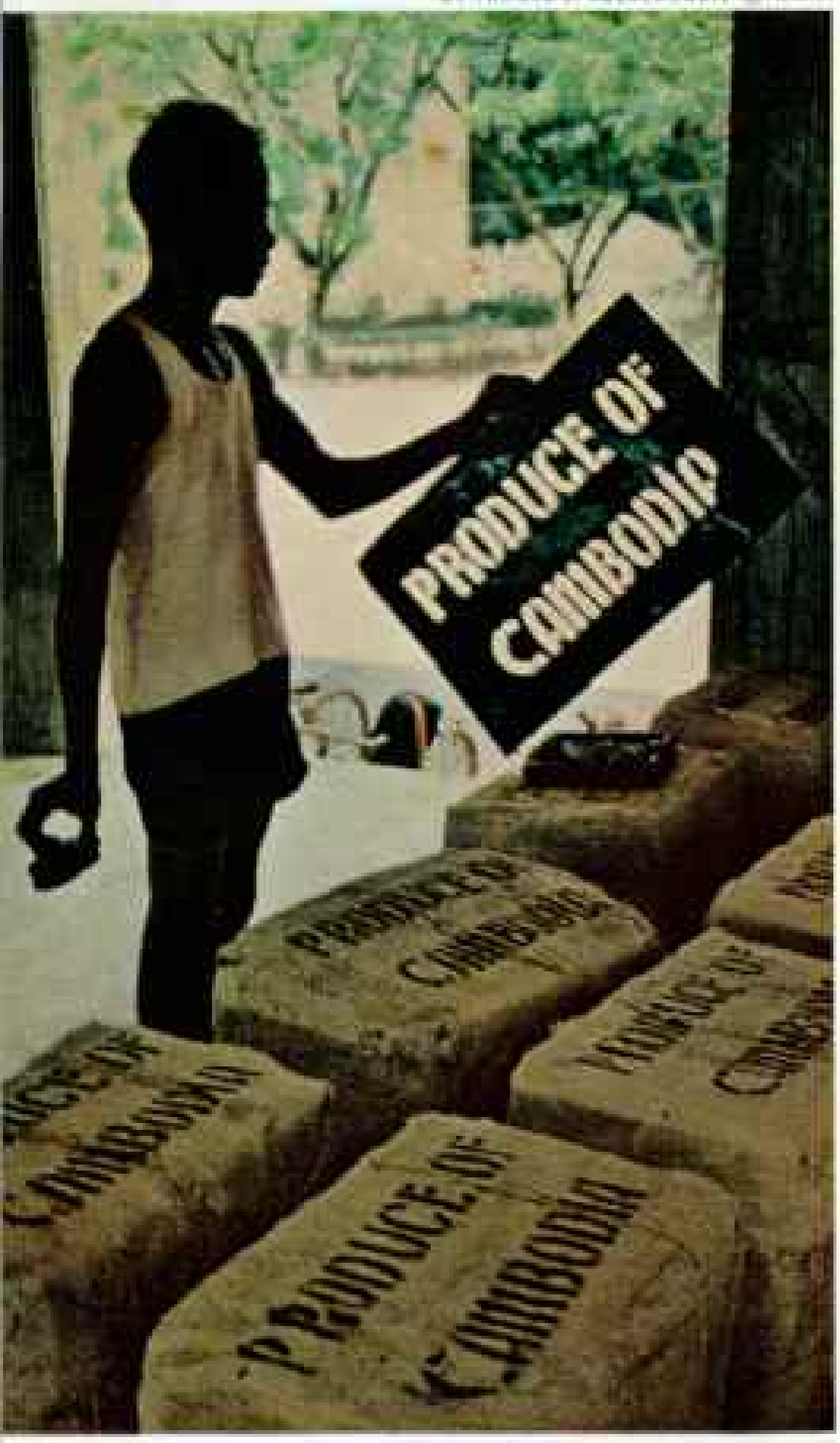
Like many of Chup's plantation workers, Nguyen Van Thanh came from Viet Nam. After 14 years he felt at home here.

"In 1953 the Viet Minh had this plantation surrounded," he said. "Many people were afraid to leave their villages.

"But that's only a memory," Thanh added.

Dry-season heat cracks parched rice fields; an ox team takes three days to furrow an acre. Centuries-old technique shows one improvement, an iron-tipped plow. Today tractors are replacing the beasts of burden.

Rainy season brings a wader to transplant rice seedlings near Chroi Dang. This girl wears the farmer's typical black homespun and a Vietnamese straw hat.



Bales of crepe rubber are stenciled for shipment down the Mekong to the United States and Great Britain. Compagnie du Cambodge, a French-owned rubber firm, maintains this processing plant at its Chup plantation, Cambodia's largest.

Hooked knife of a rubber tapper shaves off a thin sliver of bark. More than ten thousand workers live in scattered villages throughout Chup's 80-square-mile forest. Three times a week they bleed the seven million trees and empty the small bowls. A fleet of a hundred tank trucks collects the latex. Chup produces twenty thousand tons a year.

"In Cambodia now, I think we can count on peace. My own country is still in flames."

On the way to the rubber factory, I noticed a big piece of Chup was in flames, too. But it was a controlled fire, set to clear a tangle of felled jungle; the plantation was still expanding.

At the factory, latex flowed from tank trucks into huge stainless-steel curdling vats. Except for the acrid smell of ammonia, the plant reminded me of a creamery.

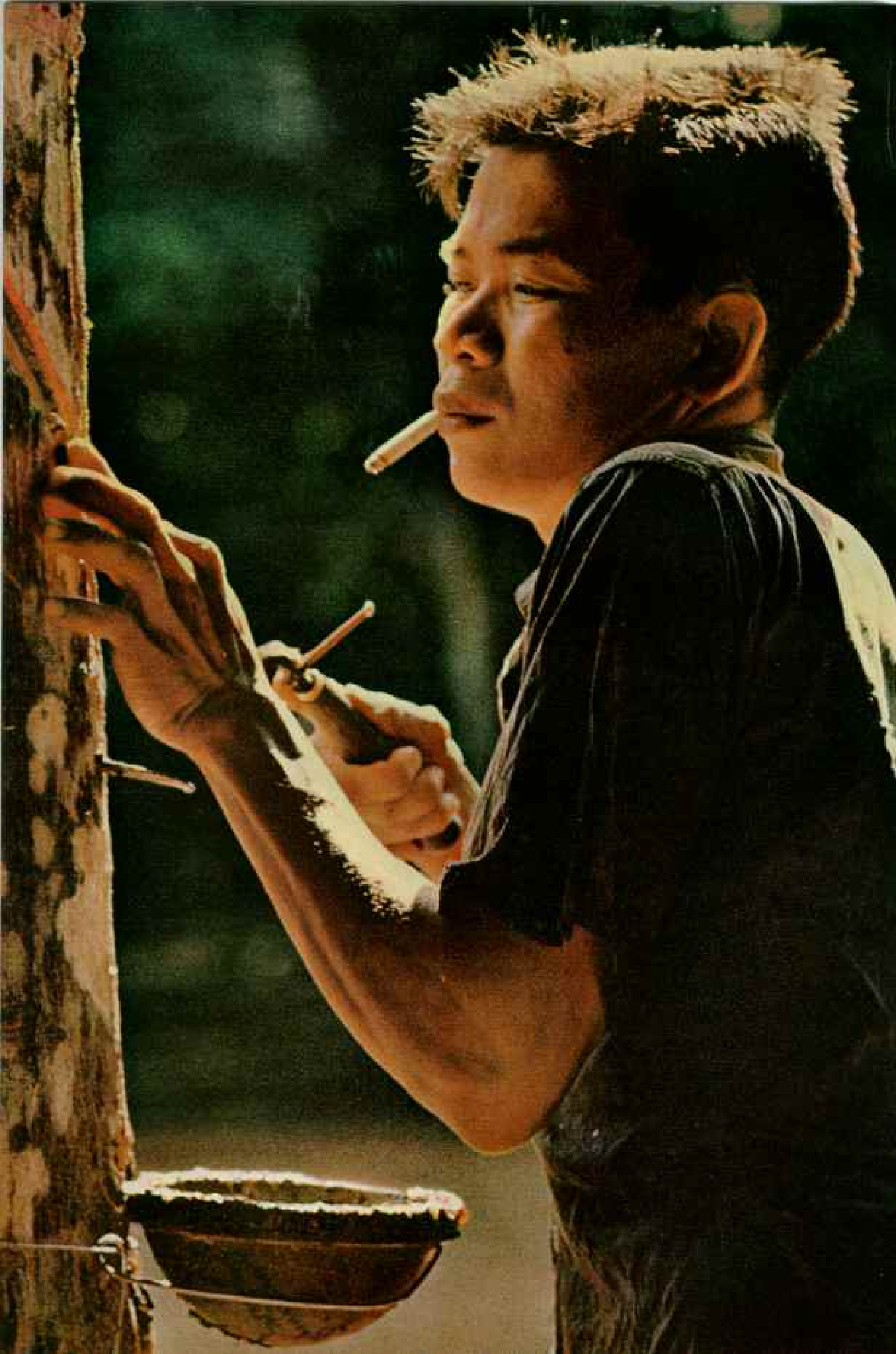
"Precisely!" exclaimed chemist Louis LePage. "The centrifuges spin off the 'cream' into those big pressurized fermenting tanks. Three weeks later—*voilà!* The latex 'cheese' is ready."

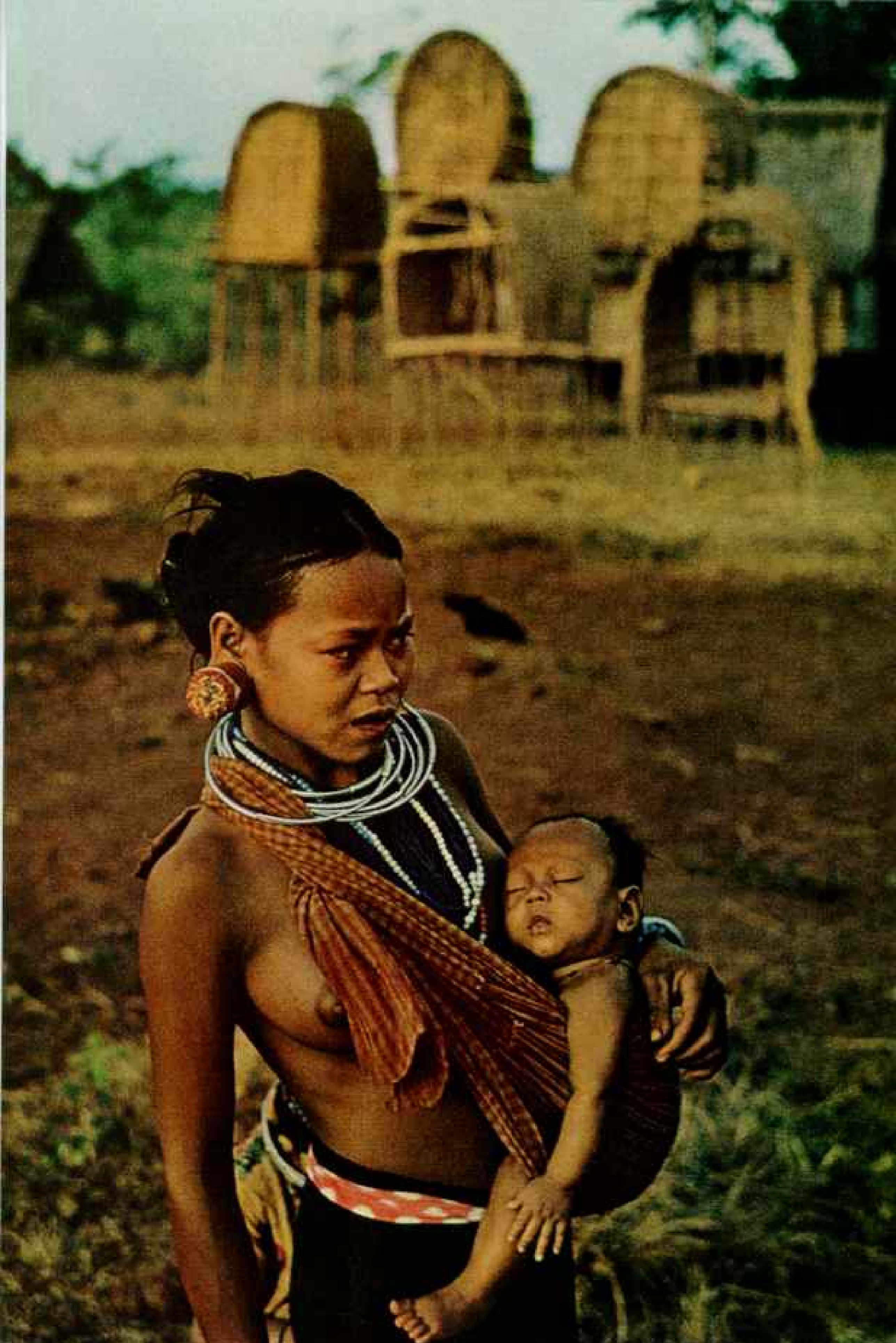
Workers fed chunks of solid rubber through squeezing rollers. The sheets, hauled to the smokehouse, emerged later as brown crepe. Annual production: twenty thousand tons—half Cambodia's total.

Tribe Serves Lizards for Thanksgiving

In far-off Ratanakiri Province near the border with Laos and Viet Nam, I met another rubber planter, Albert Bartoli. A rugged Corsican with 23 years in Cambodia, he was in charge of clearing 50,000 acres of jungle for a new state plantation. He loved the wild country, working all day and hunting all night. I asked him about the Khmer-Loeu, the primitive hill tribes that live nearby.

"The Khmer-Loeu are a race *très indépendent*. Good workers, but not very dependable. Insist on their wages at the end of each day. Tomorrow they don't show up. Visit a village?" He frowned. "It is taboo for outsiders to enter during certain celebrations. . . . But, we try!"





Pint-size smoker lights his pipe in Phum Thuy, a tribal village of northeastern Cambodia. Men, women, and children puff tobacco so strong that the author likened it to lava.

Khmer-Loeu mother slings her baby in a cotton scarf. Glass beads, aluminum necklaces, bright belt, and black sarong complete her hill-tribe costume. Bundles of sticks stretch her ear lobes; betel nut darkens her teeth. Small huts on stilts serve as trysting places for village adolescents.

Kneeling elephant awaits a passenger. Khmer-Loeu tribesmen, who farm rice and manioc, use the beasts to clear forest plots of timber. When their fields lose fertility after a few years, the whole village moves on.

Bartoli's jeep jogged us through open forests and hilly fields of tall white-tufted elephant grass to nearby Phum Thuy. The village looked almost deserted, but strange gong music told us the town was celebrating. A private party?

"Certainly not," the headman, Knai Tnail, assured us. "We are only thanking the spirits of the harvest." Behind us, in the communal storehouse, giant rattan bins overflowed with grain.

"It is the happiest time of the year," said Tnail. "The rice is in. The skies are clouding for the rains. There is plenty of pork to eat, and wine. Come join the feasting."

We followed our host. He had a high forehead, large eyes, delicate features, and skin the color of well-polished leather. Only a loincloth draped his spare frame. He smoked a bizarre pipe, a bamboo bowl wrapped with wire on a copper stem. Nearly 40 villagers were crowded into his small house, eating heaping plates of pork, bamboo sprouts, sweet manioc, melons, blood soup, and roast lizard. The men took turns sipping from long reeds poked into crocks of fermenting rice. I found the drink palatable and cold—but strong. A few relaxing sips calmed any fears I had about the food.

Just before sundown the gongs stopped. The village was quiet except for a squawking parrot, the click-clacking of wooden cowbells, and a distant elephant munching bamboo. Tnail and I talked about the future of his small tribe.

Beside us Tnail's wife polished rice with a huge wooden mortar and pestle. She was small,

Ghosts and gods parade in Phnom Penh on Chinese New Year

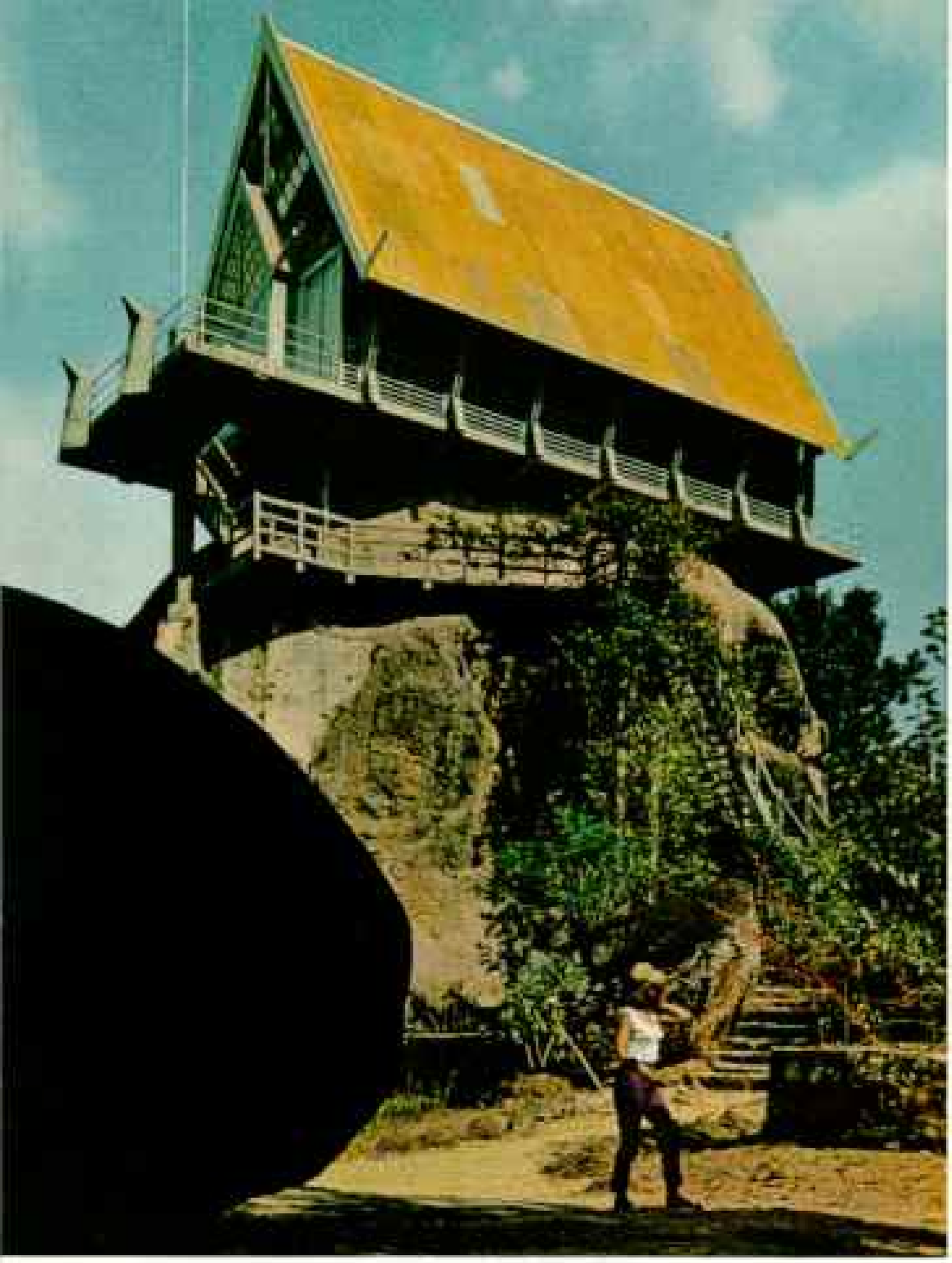
FIRST FULL MOON of the year signals the celebration of Yaa Seng, or Parade of the Spirits, in the Chinese quarter. Mediums dress in royal yellow and propitious red. Chanting prayers—and helped, some say, by opium and rice wine—they go into trances. Thereupon the spirits, down from the heavens for the holiday, are believed to take possession of the mediums' bodies. Beating gongs and drums, celebrants wheel the clairvoyants through the streets for two days and nights. Flag-decked chariot rolls past the Buddhist Botum Vaddey Temple.

Other mediums spill blood to the power of the spirits. After slashing his tongue with a spear, the man at right rides a bed of nails. Mystic at lower right drives a spike through his cheeks. Awed youngster below holds his hands together—proper greeting for a spirit.

witnessed results of the country's changing educational system. At the traditional pagoda school, young boys (girls were not allowed) chanted lessons from *sastras*, long bundles of palm leaves inscribed with Buddhist scriptures in rhyme.

Across the road at Pradak's new primary school, a young teacher, Mr. Heng Ieng, invited me to his classroom. I scrunched up at one of the small wooden desks to watch wide-eyed eight-year-olds struggle with their first taste of French. One out of three was a girl.

The walls were decorated with big colored maps (*Europe Poli-*



Teetering temple shelters a giant Buddha carved on a boulder at Phnom Kulen. Most of Cambodia's nearly six million are Buddhists.

Reclining Buddha crowds the temple, a modern-day structure. A worshiper kneels before the gilded 40-foot image. Small altar holds candles, incense, and flowers.

bare of breast, and weighted down with jewelry. I counted 26 bracelets, 34 rings, four necklaces of brass and aluminum, 67 strands of blue beads. Even as she worked, she toted an infant in a shoulder sling.

"Our life is changing," the headman said. "The younger men are cutting trees for the plantation—they can make 20 riels a day. One has even bought a bicycle. Civilization is frightening away the game—but there is talk of building a school."

Schoolboys Read From Palm-leaf Books

Through much of Cambodia, I found, there was talk of building schools. Nearly a fourth of the national budget is earmarked for education; the number of students and teachers has tripled in a decade.

In the village of Pradak, not far from Angkor, I had

tique, Asie Géographique) and charts *(Plantes et Fleurs, Les Insectes, L'Anatomie)*. Mr. Ieng had copied them from French textbooks.

"The parents built the school; the government furnished most of the materials," Ieng told me. The students themselves worked several hours a week clearing land, hauling dirt and sand, mixing concrete.

"N-O-N—*non*," Master Ieng pronounced.

The whole class stood up politely as I thanked Mr. Ieng on my way out. What did I think of his class? I answered in their new language: "B-O-N—*bon!*"

Pradak is small—perhaps 300 families. It centers geographically around the dusty road, spiritually around the pagoda, commercially around the Chinese store.

In front of the store oxcarts unloaded tins of tree pitch, sacks of fragrant *yieng bong* bark for incense, and kapok. Men from the village browsed amid teapots, pitch torches, peppercorns, peacock feathers, betel-nut cutters, scaly anteater skins, turtle shells, soft drinks—just about everything one might need.

Haircut Foils Evil Spirits

For the villager, life is a succession of ceremonies. Buddhism, more a way of life than a religion, is tolerant of local deities and spirits. Every important event is attended by the *achar*, or lay priest, as well as monks from the pagoda.

I asked my friend Lo Nguy about the elaborate altar in front of one house. It was eight

Three-day wedding ceremony begins with prayers at the home of the bride's father. The bridegroom's parents offer bananas, betel leaves, aged eggs, canned goods, and cloth, symbolically paying "the price of milk" to the bride's mother. Later a banquet

feet high, a throne on stilts shaded by a red umbrella.

"It's for the haircut," Lo Nguy explained. "Hair is the favorite hiding place for evil spirits."

To play it safe, many village parents shave a child's head, leaving only a center lock. When the child reaches puberty, at a time set by the astrologer, the lock is cut by the achar and the monks (pages 550-51). The child becomes officially an adult and the hair is left to grow—until he becomes a monk, or gets sick, or a death occurs in the family.

Everyone in the village was talking about a funeral; it was to begin that very night. Would I be intruding?

"By no means," Nguy assured me. "The man died two years ago. His body has been exhumed for cremation. The deep grief has long passed."

Indeed, it was a time for celebration. In a cleared rice field, a gaily colored bamboo-and-paper pavilion had been built over the bier. Long white banners, shaped like crocodiles, signified the soul of the departed. Red umbrellas shaded wooden altars heaped with offerings: candles, incense, rice, money, betel leaves, and cigarettes. In a big tent, monks led next of kin in prayer before a gilded image of the Buddha.

We strolled through the village, watching friends and relatives of the deceased stir up calabash cucumber salads, clean fish, and boil enormous kettles of rice for a four-day feast. Vendors wheeled their carts out onto the field and set out wares; small portable restaurants

will serve 500 guests. Each evening an orchestra of gongs, xylophones, and one-stringed violins plays for the *lam-thon*, the national folk dance.

Red parasol shades nervous bridegroom (left) from sun and evil spirits. He spends most of the three days in a pavilion in the bride's yard.

sprang up; workers erected a dance platform and a movie screen.

"He was a rich man," said Nguy. "Not in money, but many sons. Even so, all will borrow heavily to pay for such a tribute."

Funeral Guests Eat Broiled Cicadas

By nightfall the field was teeming with villagers. Young men crowded around the small orchestra. For five riels they could take a turn with the pretty taxi dancers doing the *lam-thon*, Cambodia's national folk dance. The couples circle together without touching, tracing graceful motions with hands and fingers. Footwork is less important.

Milling crowds lingered over Chinese noodle soup, munched sunflower seeds, or *chong voet*—cicadas broiled crisp over charcoal. I nibbled tasty *anamcheks*—leaf-wrapped rice cakes with banana centers.

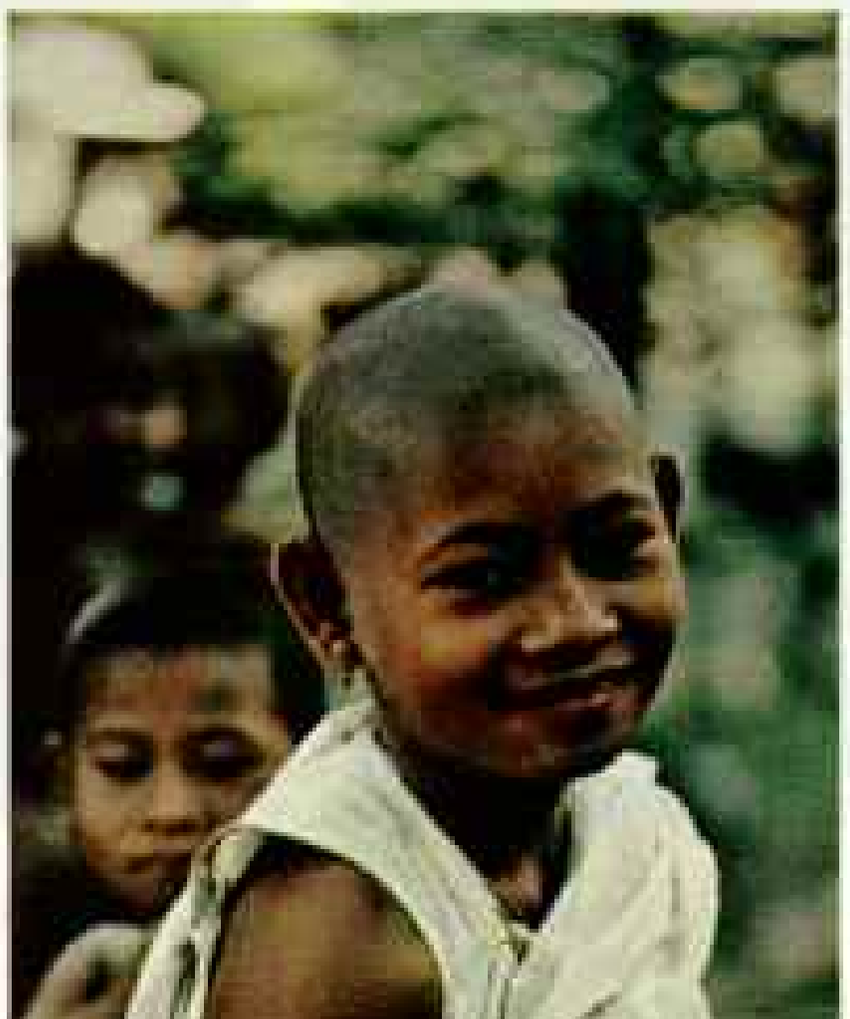
Several nights later, at the auspicious moment set by the astrologers (9:25 by my watch), came the blazing climax: A torch ignited the sandalwood pyre containing the bier and set off a crescendo of light and sound. Fireworks boomed and wailed and glowed and screeched. The sky filled with flares, pinwheels, and blinding splashes.

For four days and nights the celebrants had eaten, danced, laughed, and prayed. In all that time I had seen no one cry.

After a festive Cambodian funeral, it seemed to me a wedding was a remarkably solemn occasion. I witnessed one in the company of Martin J. Clish, an agricultural adviser who has shattered any illusions about

Boy monk's eyes reflect the inner calm of his Buddhist faith. He carries a sprig of flamboyant blossoms that match his saffron robe. Nearly every Cambodian boy spends a term in a monastery.

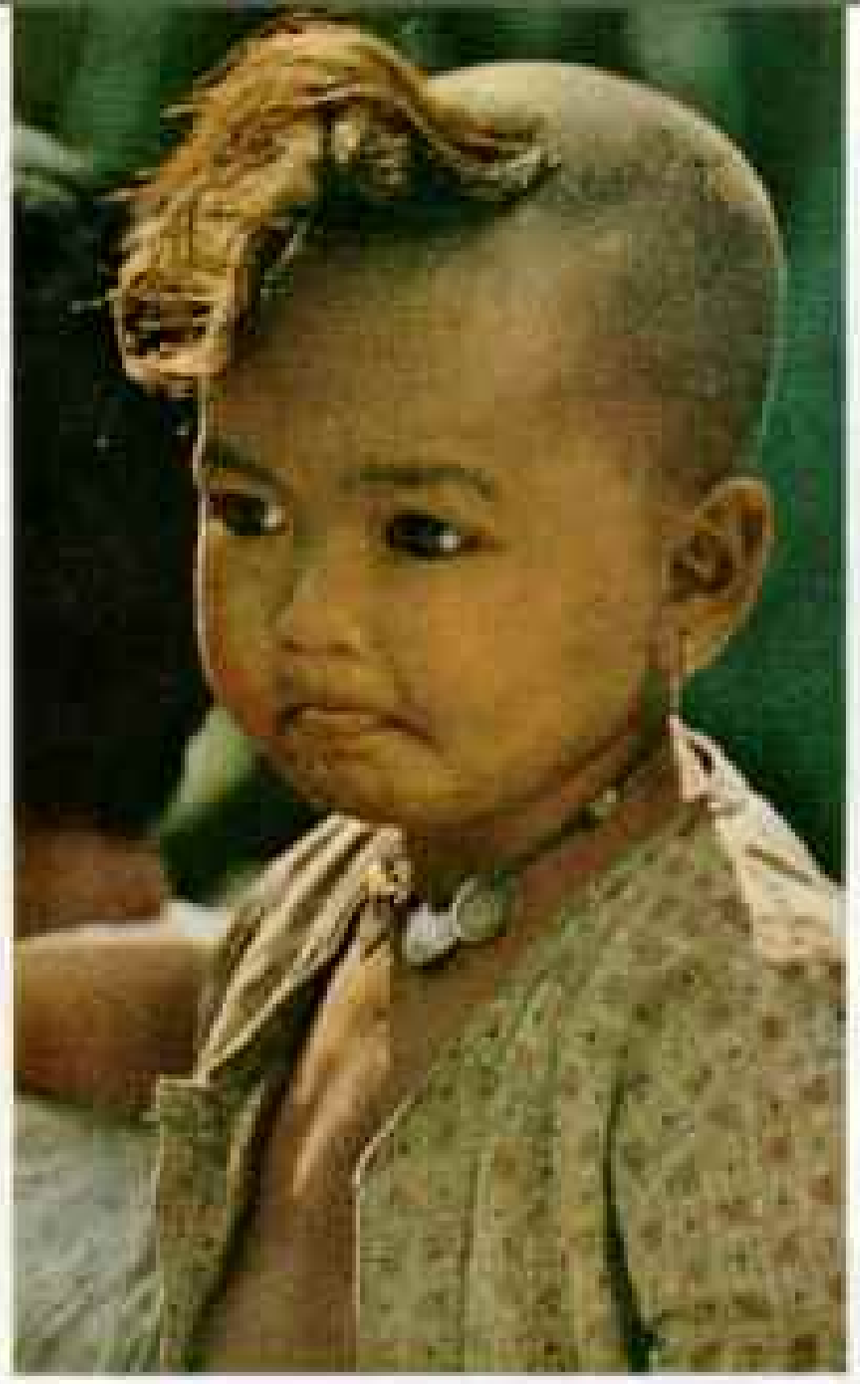
Ceremonial haircut marks beginning of adulthood for a young girl; now she can let her hair grow. Villagers, who believe that hair can hide evil spirits, keep children's heads shaved except for a lock (opposite, top).



Daring young generation discovers bathing suits. Most Cambodian women still swim fully clothed in

Adventure-seeking boys (top) pause in a field of lotus near Phnom Penh. Pink lotus flowers are used for religious rites; roots and seeds are delicacies; leaves serve as wrappers.

Young Cambodians pray and play



blouse and *sampot*, a sarong. These Chinese girls from Phnom Penh dry off under shading palms near the beach at Kep.

Village tot (upper) wears the traditional topknot. The rest of her head is shaved to ward off demons. Buddhism tolerates many *neak ta*, or local spirits. Weddings, funerals, and puberty rites are administered by village shamans as well as monks.

"ugly Americans" in the village of Chroi Dang. There he is known simply as *Lok Ta*—Uncle.

Marty had come to Chroi Dang a year earlier for U. S. AID. When the Americans were forced to close down, Marty, backed by the villagers, wrote a letter to Prince Sihanouk and was asked to stay on as a private citizen.

"All I did was plant a little corn," Marty explained modestly. A farmer took it from there.

"Lok Ta challenged me," the farmer said. "I was to plant corn on half my plot. He planted the other half his way. He harvested 50 percent more. I was convinced."

So were the others. Now they work together and talk about further schemes to better the crops.

It was the month of Phalkun, a female month, a propitious month for weddings. Marty was invited to one next morning and took me along.

"What about a wedding present?" I asked.

"No problem. In Cambodia one always gives money."

It was a big wedding. After prayers by the monks, the parents exchanged ceremonial offerings. Soon, heralded by an orchestra of gongs and one-stringed violins, the groom arrived under a red umbrella (page 549). The procession retired to the groom's pavilion, in the yard of the bride's home, where he would stay between ceremonies.

"It dates back to when a bridegroom came to live with his future in-laws for a few months first—on a trial basis—before the marriage," Marty explained.

Early in the afternoon the bride came out of seclusion in a dazzling brocade sampot and stole. Silver anklets and bracelets completed the wedding finery. She and the groom sat before an altar draped in propitious red.

The village achar cut a symbolic lock of hair from each. It signified rites of long ago when heads were shaved.

Modern Pressures Warp Old Ideals

The feast began in late afternoon. Nearly 500 guests jammed the tables set up under the cloth awnings in the yard. After dinner the bride passed out cigarettes to all. The groom followed, with matches.

Late in the evening, while guests still danced the lam-thon outside, the achar solemnly tied wrists of bride and groom together with white cotton string.

They were a handsome couple, and confident. But like their country, they faced an uncertain future.

Before I left the village, I paid my respects to the old *chau athika*, or chief monk, at the pagoda. We talked of many things, but especially of Buddhist precepts: man's love for man and all creatures, and the sanctity of all life. Nearby I noticed two boys setting a formidable-looking iron rat trap. The monk's eyes followed my glance.

"It captures the rat alive," he remarked.

And what does one do with a live rat?

"Well, the boys take it far from the village," he replied.

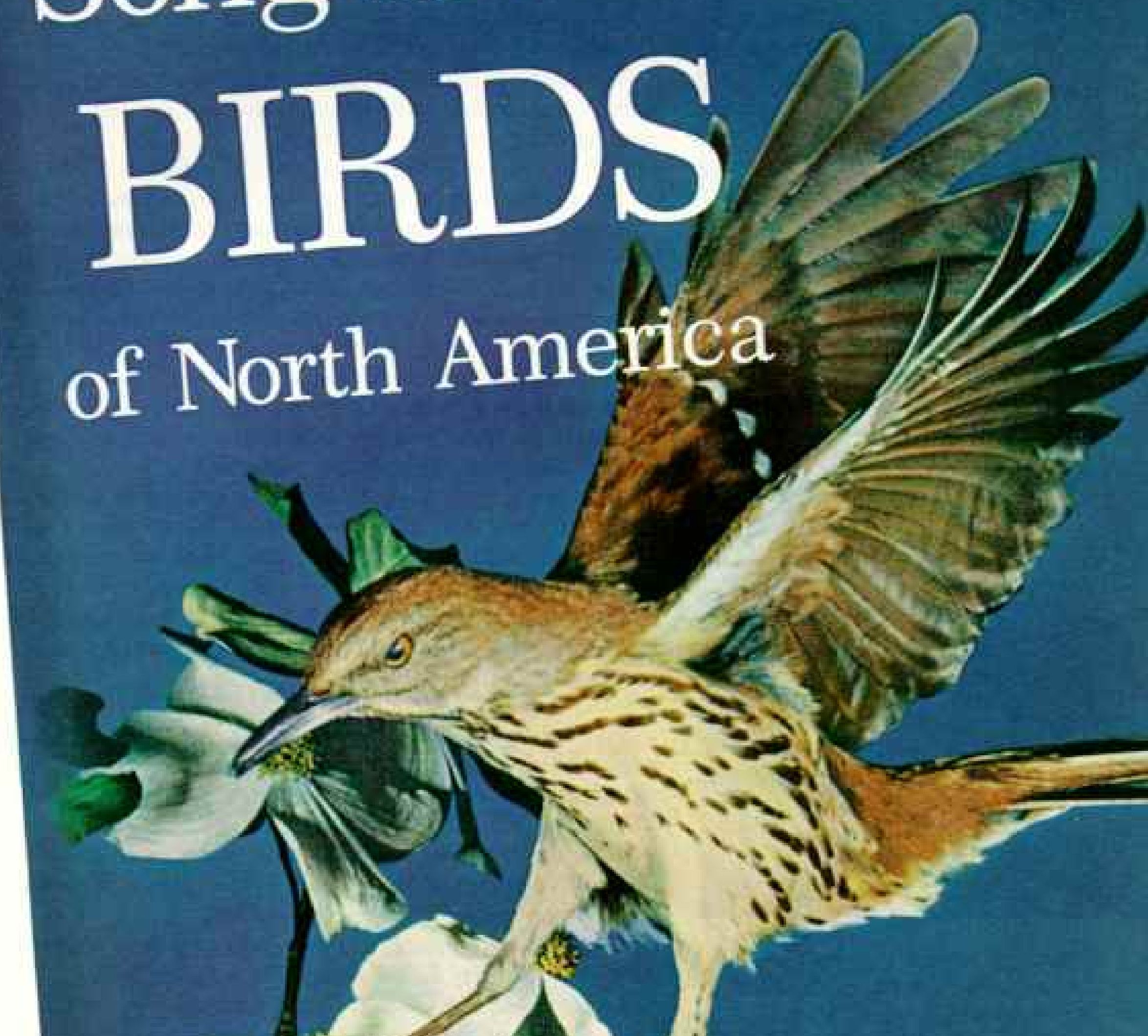
"And then?" I persisted.

The old monk paused. "Then they kill it," he said at last.

Buddhism . . . neutralism . . . all venerable traditions are beset by cruel pressures as Cambodia faces today's harsh world. THE END

NATIONAL GEOGRAPHIC SOCIETY

Song and Garden BIRDS of North America



The Birds About Us

National Geographic Society's newest book presents a fresh and vital world of color and sound

By MELVILLE BELL GROSVENOR, LL.D., Sc.D.

President and Editor, National Geographic Society

"WHAT KIND of bird is that?"

A special question, this—old as the dawn of mankind, new as the break of day. I began asking it as a boy, encouraged by a wise father. For every species I identified correctly, he paid me a nickel.

Now, thinking back, I realize that bird-watching has fascinated me ever since. But to this day, lingering at the window to admire my garden's winged visitors, I still ask the question—and a lot more.

Judging from your letters, National Geographic Society members also are intrigued by America's song and garden birds. All of us, I believe, want to know more about the colorful, chatty creatures that help bring springtime into our lives.

For all of us, then, I am pleased to announce that the answers to your questions and mine fill the 400 sparkling pages of *Song and Garden Birds of North America*, your Society's newest book. With it, the key to a bright and vital world of beauty and sound comes to hand.

Birds Proclaim Territorial Rights

One day last winter, I was attracted by sudden shrill outbursts from the snow-covered garden of my home in Maryland, a few miles north of Washington, D. C. Even in the house I could hear that indignant chattering.

Upon investigating, I came upon our favorite old mockingbird fluttering helplessly in the snow—with another mocker on top pecking at him. Evidently the stronger bird was trying to take over his domain.

I rescued the fallen bird. When he regained strength, I turned him loose in the protective branches of a holly. But instead of staying there,

Brown thrasher, alighting gracefully on the cover of the Society's newest book, uses a blossoming dogwood branch for its landing strip.

Bird-watching attracts an estimated ten million Americans. These members of the Massachusetts Audubon Society follow a fast-flying friend.

he hobbled out and fluttered to the attack again. Three times I saved that bird.

Finally I gave up, marveling at his tenacity. He would rather die than yield his territory with its storehouse of red holly berries.

Song and Garden Birds of North America explains these territorial battles: After a male bird stakes out his claim to a home or feeding area, he defends it against all comers of his kind. And when he bursts into song at such times, he serves notice to trespassers: "This is my bailiwick. Keep out!"

Not all songs are territorial warnings, however. Some advertise for a mate; some are calls made during flight, nesting, or feeding. To humans, though, the liquid language of birds brings pure pleasure.

I wanted our new book to capture this lyric wealth—not only to present the bird kingdom in pictures and words but to serenade us with its melodies. Now I am proud to report that *Song and Garden Birds* is just such a "singing book." A pocket in the back contains a record album with songs of 70 birds. Perhaps you'll recognize some of the singers, such as the robin, bluebird, and meadowlark—eastern or western. Of others, you'll recall only having thrilled to them from afar.

Six double-faced records, playing for more than an hour, take you on a dozen cross-country bird walks, from the North Woods, New England, the Carolinas, and the Creole country to Midwest meadows, the Rockies, and California. Thrushes, sparrows, warblers, wrens—these and many others greet your ear.

As each bird sings, you are told the page in *Song and Garden Birds* where the species is described. Dr. Peter Paul Kellogg, Director of Cornell University's Library of Natural Sounds, gives the commentary.

Classic Presentation of 327 Birds

Throughout its three-quarters of a century, your Society has traveled widely in the world of feathered creatures. Its findings, published in numerous magazine articles and in book form, have won wide acclaim. Our famed two-volume *Book of Birds* was edited by my father, Gilbert H. Grosvenor, and Alexander Wetmore. The book was first printed in 1932, and later editions were required to meet members' demands. Long out of print, it is a collector's item today.

Song and Garden Birds of North America continues this great tradition and makes full use of high-speed color photography, not practical at that earlier time. In developing the book, we sought to present the birds as they exist in their natural settings. We wanted you to be able to look up a given bird quickly, to see it portrayed in authentic color, so that you could identify it at once, and to

From hummingbirds to sparrows, *Song and Garden Birds* presents 327 species and contains 509 color engravings from photographs and original paintings. The 400-page book took more than three years to produce.

Insistence on color accuracy led to exhaustive comparisons of museum specimens with proofs of the book's illustrations. For one picture alone, as many as half a dozen successive proofs were patiently corrected, including such details as eye, beak, and foot coloring. Here the dean of American ornithologists, Dr. Alexander Wetmore, points out subtle color differences in the pileated woodpecker to Anne D. Kobor, picture researcher for the National Geographic Book Service. Skins of meadowlarks, blue jays, and cardinals await comparison.

learn the story of its life. *Song and Garden Birds* does this for no fewer than 327 species —all the songbirds you are likely to encounter in North America north of Mexico. (Water, game, and predatory birds will be presented in a later volume.)

Thirty chapters in *Song and Garden Birds* delineate these several hundred species by family groupings. A typical chapter contains an introduction to the family, plus a detailed biography and color illustration of each bird member, and of both male and female if they differ importantly in appearance. For quick reference, a capsule paragraph at the end of each biography spells out the bird's range and characteristics.

Ornithologist Alexander Wetmore, a Trustee of your Society and former Secretary of the Smithsonian Institution, served as our chief consultant, rechecking every page of text and scrutinizing every illustration for absolute fidelity of color and setting.

For the major families of birds, he and Book Service Editor Merle Severy asked eminent ornithologists to write graphic first-person accounts and to check the individual biographies to ensure complete accuracy. Dr. George H. Lowery, Jr., relates his experiences with woodpeckers, including the rare ivory-bill. E. Thomas Gilliard tells of his discoveries among the sweet-singing thrushes. Dr.

Ruby-throated hummingbird

Common crow

Red-winged blackbird

Red-eyed vireo

Barn swallow

Western kingbird

Belted kingfisher

Dickcissel

Parted honeysuckle reveals a clutch of robin eggs. Scolding mother will return to the nest when the young explorer leaves. Eggs (actual size) show diversity of color, shape, and marking. Birds in open nests generally lay spotted eggs; dwellers in tree trunks, burrows, or buildings tend to produce plain white ones.

Alden H. Miller reports the intriguing ways of mockingbirds and thrashers. In all, 14 scientists contribute their special knowledge.

Birds in vivid, lifelike color grace the book from cover to cover. Indeed, the 555 illustrations explain why *Song and Garden Birds* required more than three years to produce. Carefully selected from thousands of the finest color photographs, as well as from famous bird portraits made for the GEOGRAPHIC by Allan Brooks, they depict each bird to best advantage for identification. Staff artist Walter A. Weber and ornithologist George Miksch Sutton created paintings specially for the book.

To show birds in their natural habitats, Frederick Kent Truslow, Eliot Porter, the late Arthur A. Allen, Allan D. Cruickshank, and other expert wildlife photographers spent days, weeks, even months to get one outstanding picture. Sometimes they built tall platforms—slowly, gingerly easing each piece into place, lest they disturb the bird on the nest.

Birds on the wing also posed a difficult problem. The human eye, for instance, must strain to follow the belted kingfisher as he dives into the water from 50 feet overhead and emerges with a small fish in his beak. But the high-speed camera catches this dramatic action for us in our new book.

I found equally dramatic its photographic contrasts. Most of us, I suppose, know that the male bird generally sports the fancier feath-

ers. But I never realized just *how* much more colorful the male can be until I viewed the gorgeous red coat of the summer tanager—and the drab olive and yellow of the female.

More than helping us to know the warblers, vireos, and other birds of yard and park, I hope the book will tell you and me how to get along with them. I wanted it to show us why they are as they are, why they act as they do. I think Mr. Severy and his staff have accomplished this.

How to Attract and Identify Birds

What is "The Way of a Bird"? In the first of four general chapters, Dr. Wetmore explains the miracle of flight, the changing colors of plumage, and many other secrets. In the next, "Birds in Your Garden," he tells what to feed a woodpecker or a hummingbird, how high to place nest boxes for wrens or purple martins, what plantings will attract birds to your garden, how to foil pesky squirrels.

What about courtship and nesting behavior? You'll find a thorough chapter on the mating-season rituals. And if you want to learn bird-watching techniques, Roger Tory Peterson will be your knowledgeable guide in a chapter entitled, "What Bird Is That?"

As you drive across the United States or Canada, or range from Mexico to the Arctic, the book will prove a good traveling companion, identifying the new birds you encounter at different latitudes, longitudes, and elevations. It also explains the ways of some of the bird kingdom's nuisances, such as the starling.

Last fall I watched a spinning black cloud of starlings descend on my dogwood trees, gorge on the red berries, and depart in a flash, bound for their favorite roosts, the august public buildings of the Nation's Capital. I could only shake my head at the trees denuded of berries and hope that the songbirds driven away would soon return. But the starling, I know, is here to stay, as the chapter on this aggressive, hardy immigrant says.

Perhaps it is just as well. I think of what Dr. Olin Sewall Pettingill, Jr., Director of Cornell University's Laboratory of Ornithology, writes in his chapter on certain other bold and garrulous birds:

"Jays, magpies, crows. They are to be lived with, understood, appreciated. What our American outdoors would be like without their vitality I cannot imagine!"

I cannot either, and that goes for all our song and garden birds. In their great variety, they enrich our lives. THE END

Unique album makes this a singing bird book

SONGS OF 70 BIRDS, recorded in natural settings across the continent, accompany *every copy* of *Song and Garden Birds*.

Six long-playing records take the listener on a dozen bird walks, from "Carolers to a New England Dawn" to "Creole Country Serenade," from "At Sunset in a Midwest Meadow" to "In the Shadow of the Rockies."

To play any record, one need only turn to the desired page and place the entire album on the turntable (below). Arrowhead pointers visible through the clear vinyl records locate each bird's song, making it possible to play the renditions of individual birds.

Each bird is introduced by Dr. Peter Paul Kellogg, Professor of Ornithology and Biological Acoustics at Cornell University; for many he suggests phonetic phrases as memory aids to identification. The scarlet tanager, for instance, seems to say, "Hurry, worry, blurry, flurry," and sounds "like a robin in a hurry with a cold."

These songs represent 35 years of research in bird-sound recording by the Cornell Laboratory of Ornithology under the late Dr. Arthur A. Allen, its founder, and Dr. Kellogg.

Forty-eight state journey leaves a turbaned young visitor from India "feeling that America is a home with a door always open to the rest of the world"

A Sikh Discovers America

By JOGINDER SINGH REKHI

Photographs by the author

I HAD SEEN PLENTY of strange and marvelous things in America, but I was not expecting any uncommon finding when I stopped one day on Wilshire Boulevard in Los Angeles to watch a new 10-story building going up.

The reinforced-concrete structure stood there naked and bare-ribbed, like an unplanked ship taking form on the ways. A man leaned against the guard fence, jotting notes and making sketches on a drawing pad.

"Do you work for the builder?" I asked.

The man stared at my turban and beard and silver bracelet. I introduced myself as a visitor from India. Then he replied, "No, I represent a firm that collects information about new buildings—how they are put together."

"For what purpose?" I asked.

"When it's time to wreck a building—this one, for instance—we can offer a lower bid for demolishing it if we know exactly how it was built."

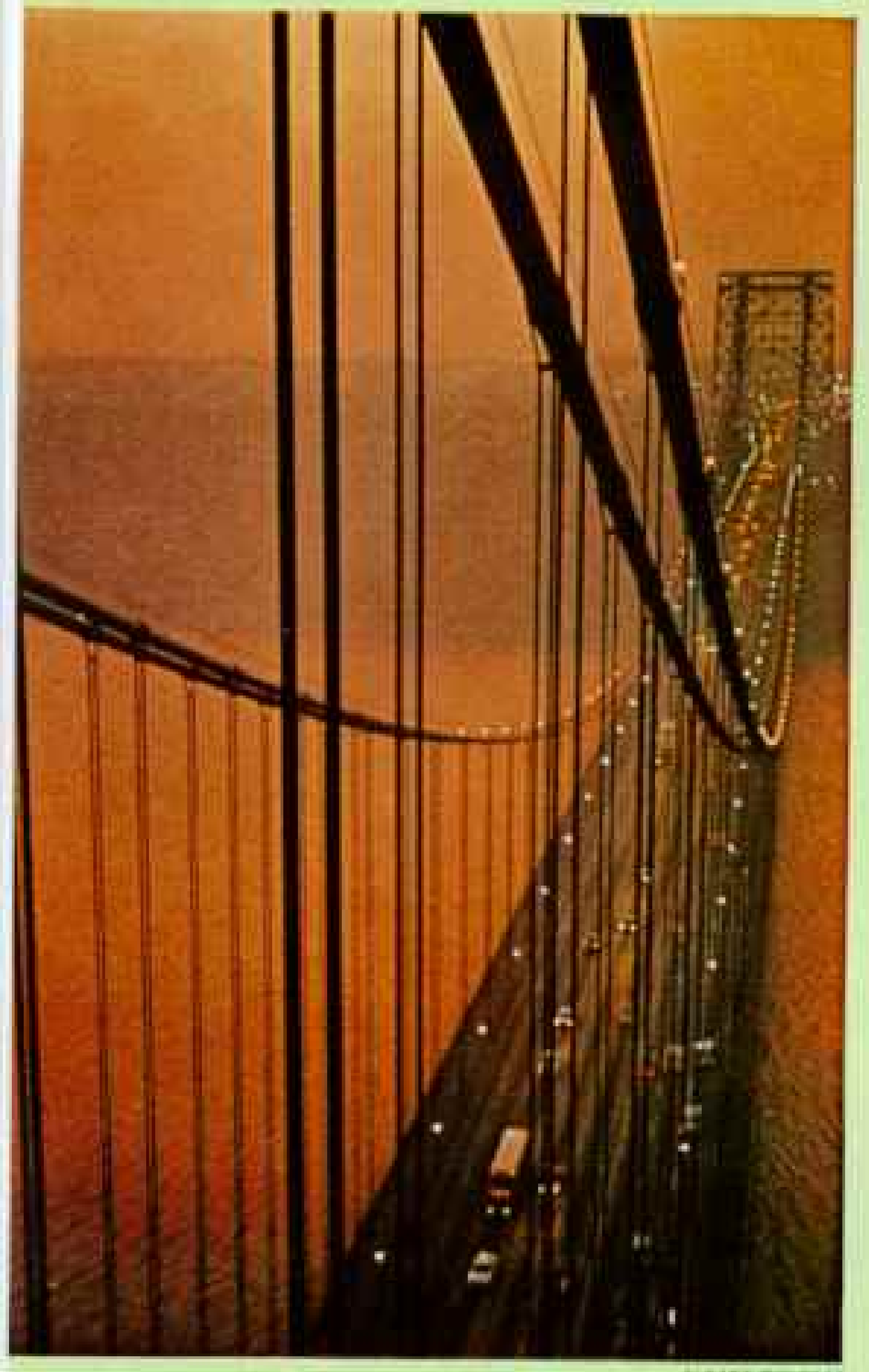
"Is this a big business?" I asked.

"Well, our firm alone has blueprints and construction notes on about 3,000 structures all over the United States. Every year some are torn down."

As a Sikh from India making a slow tour of the United States, I was always seeing the newness of America and how fast this country grows. But this was a blinding impression of quick change—this odd business that plans how to wreck a building before it is even built.

My heritage was from another world—that of Burma, where I was born, and of India, where I was educated. My father, Dr. Nand Singh Rekhi, is a surgeon and physician. In India I helped found a family export-import business. I also ran an art shop in New Delhi, selling Indian paintings, ceramics, and decorative ware of brass and copper. I had many American

I came to America to write a book about Lincoln. To do so, I found I must know more about his land and his people. To find out what Americans are like, I shared their food, shelter, joys, and sorrows. In the heart of Washington, the only city other than Springfield that Lincoln called home, his memory is enshrined in the Lincoln Memorial. I surprised these high school students on a graduation tour; I knew more about Lincoln than they did. Their teacher asked me to give a little talk about this great man.



ALBERT MILLIARY

I saw the George Washington Bridge grow from one level to two between my visits to New York. Many times I stood watching the across-the-Hudson traffic. I played a game, trying to guess the motorists' jobs and ages, their tastes and character, by the kinds of cars they owned and how they drove.

In Lexington, Massachusetts, I sat on a horse, closed my eyes, and imagined Paul Revere's feelings the night of his famous ride. I hope my readers do not think I am trying to make a joke, but I truly believe you can read deep in a man's heart only if you do as he did and see as he saw.

customers. What they said and how they acted made me curious to visit their young but powerfully influential country. I also wanted to see where the inspiring Abraham Lincoln had lived. As a boy, I had started my coin collection with a Lincoln-head penny bearing the words, "In God We Trust."

Wanderings Cover 74,000 Miles

From India I came by air to the country of Lincoln. Between that time and starting to write these words, I traveled 74,000 miles through all the 48 contiguous United States and the District of Columbia.

During two and a half years, I talked with 33 state governors and sat down to dinner with hundreds of Americans who had been strangers to me until an hour or two earlier. I lost a front tooth falling off a ladder while photographing the source of the Mississippi at Lake Itasca, was given six traffic tickets for driving too slowly, and mailed 4,000 picture postcards to family and friends at a total cost equal to my air fare from New Delhi to New York.

I first touched American soil at Idlewild, now Kennedy International Airport, and a bus took me into New York City. I put my

JEAN GINGLE

New York's subways are its heartbeat, an underground dynamo that runs the city.

GOBINDER SINGH KEWAL

WERNER WOLFF, BLACK STAR

CHARLES HEWITT © NATIONAL GEOGRAPHIC SOCIETY

I SPENT many hours in the beautiful United Nations building in Manhattan, symbol of peace and coexistence the world over. I believe America's greatest contribution in international affairs is this bit of soil on New York's East Side. I found out in my travels that America feels honored by being the homeland of the United Nations.

Secretary-General U Thant of the U.N. is my friend from Burma days. He encouraged me to come to the U. S.

Pizza makers on 42d Street fascinated me when I wandered Times Square.

luggage in a locker, sipped a cup of tea, and started walking. I wanted to see, smell, and hear this new place while I had the innocence of a child set adrift from its mother.

I found my way to Times Square. Made dizzy by the flashing billboards above the swirl of people and vehicles, I felt a nudge on my elbow and turned to face my own face—only it was another Indian.

We exchanged names. Ram Saran Sharma had been in New York four or five days. He was a veteran.

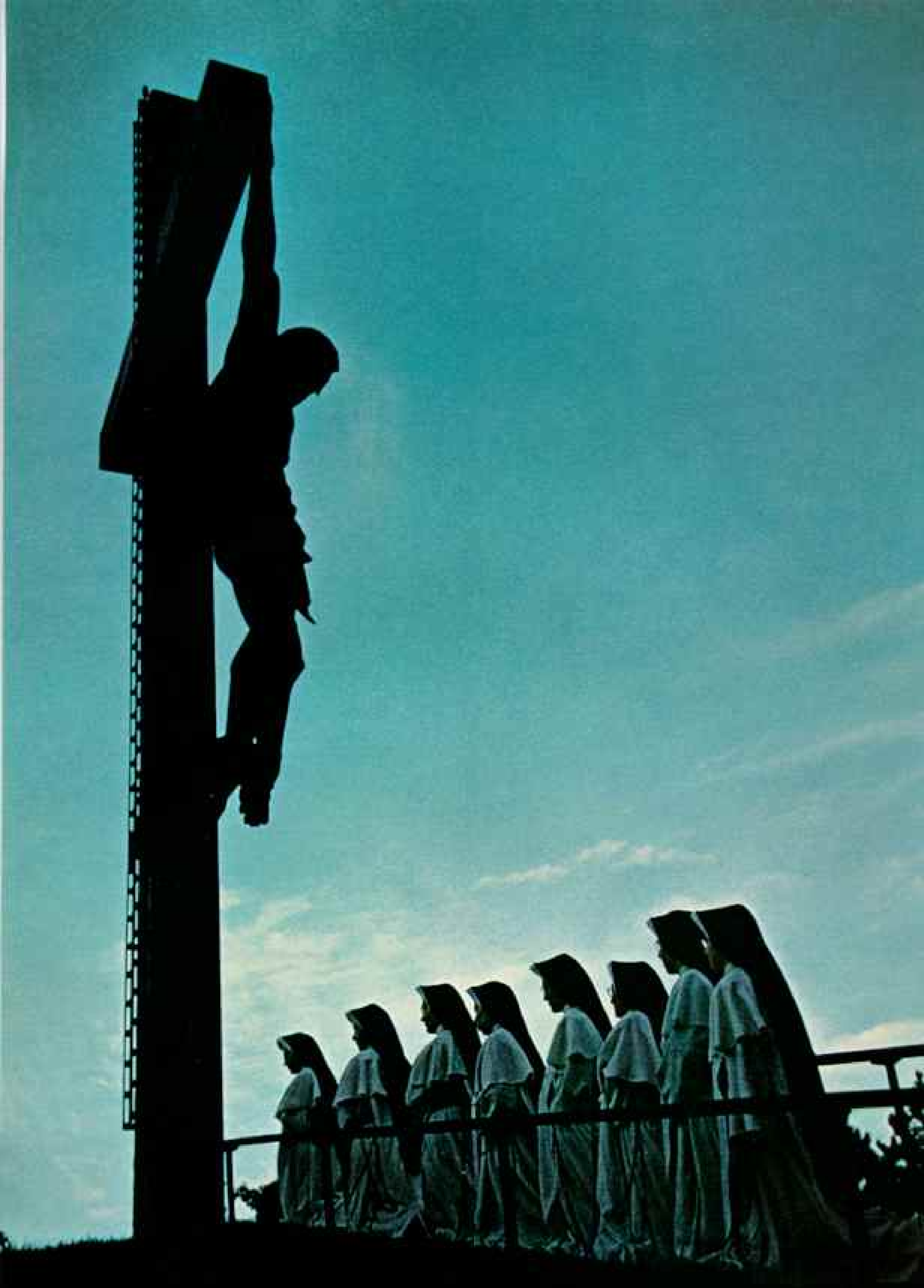
"Rekhi," he said, "are you hungry?"

I nodded.

"Come along, we'll get something to eat."

We squeezed into a narrow food bar smelling of cheese, olive oil, chili peppers, and anchovies (a "pizza palace," Sharma called it), where the chef in a tall white hat flipped disks of dough almost to the ceiling. We stood and ate several pizza wedges and I drank my first American-bottled Coke.

I set out to learn all I could. I discovered museums and art galleries and department stores. A new way of life took hold of me. Even riding in the subway shuttle beneath 42d Street—the rush of the people and the quick acceleration of the train bothered me



at first—I felt swept up in the vast drama of America.* People were looking at me with as much interest as I felt toward them.

Down in Greenwich Village one day a curbside artist grabbed my arm. "How about letting me paint you?" he asked.

"I don't want a picture of myself," I said.

"No, no!" said the artist. "I want the portrait. I'll paint it free. You'd give class to the one-man show I'm working on."

"O.K.," I said; "but if the painting's no good, you'll have to let me buy it. If I like it, you may keep it."

The man obviously thought I was loony, but in 40 minutes my portrait was done. I took a look and reached for my wallet. The artist looked deflated.

I laughed. "No, it's really quite good. You keep it," I said.

When I tired of exploring, I sat day after day in the New York Public Library. Who were those men Americans called "Founding Fathers"? What did they do and say? For eight weeks my head was bowed over thick volumes. How it made me wish that India could make up its sad lack of good books about America!

But New York was not all work. I went to a costume dance at a Presbyterian church on the East Side near 50th Street. I was a maharaja, with a tall plume at the front of my white turban and a huge diamond (not real) on my forehead. My white smock with jodhpurs was the traditional *achkan sherwani* of India.

One of my partners, a stately lady from Park Avenue who was a sponsor of the evening, gave me advice: "You can start fine friendships like this, on your feet," she said. "But remember that nothing cools a woman's fondness quicker than having her feet trampled on."

So at Arthur Murray's I mastered a few steps of the fox trot, waltz, cha-cha, and twist. Unfortunately, there was one dance I failed to learn.

An acquaintance asked me to a party one evening in the recreation room of a friend's home. The music was wild when we arrived. A young lady popped up before me and said, "Let's dance!" I extended my arms in the manner of ballroom dancing. The girl seized my limp right hand in hers and gave a violent pull. With a grunt of pain, I flew past her and almost stumbled to the floor.

"Don't you know how to dance to rock-'n'-roll music?" my astonished partner asked me.

My shoulder ached for weeks. Ever since, I have preferred the twist. If I dislocate my back, it will at least be my own fault.

Huge crucifix dominates this shrine in the woods at Indian River, Michigan—a church without walls. I spent three nights in the glorious sanctuary. At dusk one day eight nuns came out, knelt, and prayed. Throughout my trip I attended church each Sunday and learned about many different denominations. I taught comparative religions in Sunday school more than 30 times. And in teaching I, too, learned.

One foot in Canada, the other in the U. S., children play "Paul Bunyan" on the Ambassador Bridge between Windsor and Detroit.

KODACHROMES BY JOSEPH H. BAILEY (C) N.G.S.

U.N. Raises Hopes—and Fears

At first, it was stepping into the brightness of the future to visit the United Nations headquarters on New York's East River (page 561). My heart jumped with hope at the idea of true friendship among nations as I walked past banners of 112 countries along First Avenue.† There flew India's three stripes of saffron, white, and green, centered on a spoked wheel, 47th in alphabetical rank.

I paid my respects to Secretary-General U Thant, a friend since I lived in Burma. He was then permanent secretary to Prime Minister U Nu.

U Thant, with his warm, relaxed manner,

*See "The World in New York City," by Peter T. White, NATIONAL GEOGRAPHIC, July, 1964.

†See, in NATIONAL GEOGRAPHIC, September, 1961: "Flags of the United Nations"; and "Date Line: United Nations, New York," by Carolyn Bennett Patterson.

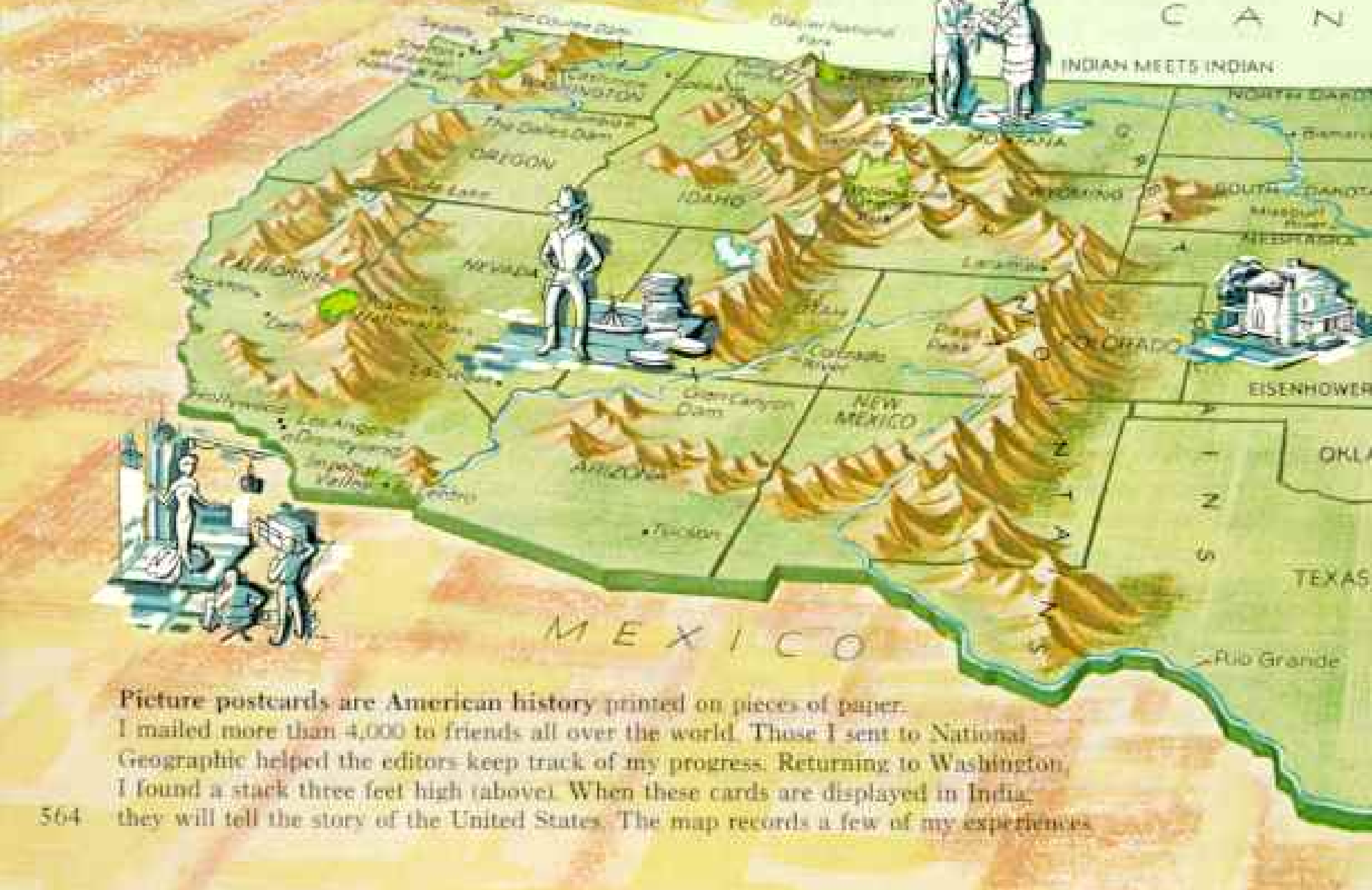
makes people know that he likes them. His big responsibilities have not changed this.

Walking around the U.N. buildings I was mistaken for a delegate. People introduced themselves freely, eager to meet a man from another country.

I watched visitors trooping along behind their guides, many of whom wore the costumes of their homelands. But somehow I had an impression that the people from Omaha and Edinburgh and Pretoria and Manila felt themselves to be in a museum or a gallery with everything in order, comfortable, completed. They gave no indication of knowing that behind the tall doors the fate of the world could be hanging by a thread.

I am sure this partly violates the facts, but it was a frightening impression.

One day I stood at the summit of the Empire State Building and looked far away, beyond the jammed-up city to rivers and hills and woods. How big America was! To see it right I would need an automobile.



Picture postcards are American history printed on pieces of paper. I mailed more than 4,000 to friends all over the world. Those I sent to National Geographic helped the editors keep track of my progress. Returning to Washington, I found a stack three feet high (above). When these cards are displayed in India, they will tell the story of the United States. The map records a few of my experiences.

That night I added up the funds I had saved for this trip. I calculated that I could buy a car and tour the United States from coast to coast. I could not afford to be extravagant, but I could take my time and go where I wanted.

"Automobile" meant one city—Detroit. I flew there and from a phone booth rang three dealers before I found one willing to come pick me up. "My name is Jim Butcher," he said. "I'll be there in 15 minutes."

This courtesy sold me a Chevrolet station wagon with air conditioning, extra-strong springs and shock absorbers, a spotlight, compass, seat belts, and an oversize radiator. I replaced the radio with a tape recorder.

Children Play at Peaceful Border

From Detroit I crossed over into Canada. In the middle of the Ambassador Bridge, it was pleasing and reassuring to find no soldiers with bayoneted rifles. Instead, small boys played giant by placing one foot in each of the two great free nations (page 563).

With Detroit as home base, I set out to see the United States section by section. Part of my plan was to visit the four extreme corners—in Maine, Washington, California, and Florida. Mid-June found me in the rich, beautiful farmland of Aroostook County, the potato bin of the East, where Maine meets the Canadian provinces of Quebec and New Brunswick.*

In this region, French-Canadian blood, language, and customs knit the neighbor countries. I could hardly believe the busy traffic across the international border here. A thousand Canadians commute to jobs in the United States every day. Many work on American farms, like that of John J. Parent, who owns 400 acres of oats, potatoes, and woods edging the beautiful St. John River.

I found Mr. Parent, himself a descendant of French-Canadians, plowing his fields to receive the seed potatoes. He invited me to take the seat of his big red tractor.

"Maybe you have plowed behind an ox or a horse in India?" he asked me.

"No," I said. "I have never plowed a field."

After half an hour, Mr. Parent said, "I like your straight furrows." I got down from the tractor and took off my shoes and walked in the warm, newly turned earth. Throughout the world God's soil is the same, the seedbed of our life. In a few minutes Mr. Parent removed his shoes, too.

*See "Aroostook County, Maine, Source of Potatoes," by Howell Walker, GEOGRAPHIC, October, 1948.

I visited Old North Church in Boston and stood before a statue of Paul Revere. I knew how lanterns swinging from the church steeple in 1775 sent him galloping off to alert the minutemen at Lexington and Concord.

Later, in front of the Minuteman Statue on Lexington Green, a bystander spoke to me. "I guess it's hard for a foreigner to understand," he said, "how a man, a horse, and a few musket shots could change the course of history. Now if you could see some of these places from horseback. . . ."

"Can you get me a horse?" I asked him. Surprised, the man said, "I'll try."

Lexington Police Sergeant Maurice E. Woodward helped us, and we found a local horse dealer, John Brucchi, who lives at 63 Paul Revere Road. Mr. Brucchi lent us the palomino gelding Sun Danse (page 560), the pet of his teen-age daughter, Susan. I put Sun Danse into a trot along the Concord road. Here the minutemen cut down retreating British from behind walls and house windows.

I shut my mind to the traffic, fine homes,

Thanksgiving dinner with turkey and trimmings made me feel at home with the Laban Hochstetler family, who invited me to their farm near Middlebury, Indiana. We are saying a Mennonite prayer; it is simple and sincere, not acting. I think Thanksgiving is America's most original holiday because it reflects the spirit of your Pilgrim Fathers and preserves your traditions.

the well-dressed people. I tried to think and feel like Paul Revere on that historic night. Am I angry? Am I proud? Am I afraid?

Probably because of trying, I remained empty of all these feelings. But then I realized that Revere, galloping down this lonely road, perhaps felt none of these emotions either. He was too busy, too excited. All he

needed was to know that he was right, which was a fact, not an emotion. I felt right, too, thinking that I had found a little understanding of the actions of this brave man.

From my boyhood, Lincoln stood to me for the character of America. I wanted to follow the route of the Lincolns from their log cabins in Kentucky, through Indiana, to Springfield, Illinois, where Abraham grew from young lawyer to President-elect of the United States (map, pages 564-5).*

The trail began with Abraham Lincoln's grandmother. I knew that Lincoln's father, Thomas Lincoln, was brought up by a determined mother, Bathsheba Herring Lincoln. Her husband was shot in an Indian ambush, and Bathsheba managed to hold the family together, feeding and clothing her young sons.

I made up my mind to visit the grave of Bathsheba Lincoln in Mill Creek Cemetery (now Lincoln Cemetery) in an outlying area of the Fort Knox, Kentucky, Military Reservation.

Getting there was an adventure.

"The place is not easy to find," the Fort Knox duty officer told me. "Very few people ever visit the grave. We'll have to escort you."

It was already early evening. Two MP's led the way in their patrol car. The road was chewed up by the tracks of tanks and mobile guns. My station wagon got stuck. I got in the MP car driven by Sgt. Robert L. Frazier. We missed the sign to the cemetery and drove 22 miles out of the way. Frazier radioed headquarters. We took a different direction and finally reached Mill Creek at 9:15 p.m.

There was thunder, but not only from a storm. Troops were out on night training. Guns rumbled over the hill, and flashes from the firing joined lightning to light up the sky. Three frightened deer leaped across our path.

We had to circle to find the crossing of Mill Creek to the cemetery. By flashlight we located Bathsheba's simple gravestone, standing among 90 others. The guns were nearer and louder. Red flares hung in the sky, and we could hear the roar of tank engines and men calling. I felt a bit nervous. Then I thought about the Lincolns on the wilderness frontier. Bathsheba's grandson Abraham had written, "The panther's scream filled night with fear, and bears preyed on the swine."

Memory of Lincoln Lives On

When a man follows the Lincoln trail, he feels that Lincoln somehow is still living. In little towns still not joined by paved roads I heard people refer to him as "our Lincoln" and "our neighbor," as if he were part of their lives.

I paid my respects to the Lincoln home in Springfield, Illinois, and visited the Lincoln shrine in Oak Ridge Cemetery there. At the tomb, I thought a group of men wearing red fezzes must be a delegation from the Middle East. But they were members of the Ancient Arabic Order, Nobles of the Mystic Shrine. With them was Governor Otto Kerner of the State of Illinois.

The Shriners, I learned, are a fraternal organization of the Ancient Free and Accepted Masons. The men in fezzes and the high-placed governor, too, all seemed humble men, bowing heads in reverence.

Potentate of the Masons' Ansar Temple in Springfield is DeWitt C. Lindley. His father, Fleetwood Lindley, was present as a boy when Abraham Lincoln's coffin was opened for identification in 1901, before the President was reburied in Springfield. When Fleetwood Lindley died early in 1963, he was the last person to have seen Lincoln's face. He now lies buried near the Great Emancipator.

The curator of Lincoln's tomb, Mr. George L. Cashman, told me of showing the tomb to kings and prime ministers and dignitaries from nearly all the countries of the world.

Hearing this and seeing the serenity of the place, you know that Lincoln was a man of all people, and that he surely belongs to all people forever. And there he lies, buried beside others of his countrymen, not in a lone, big grave away from others.

I heard how Millersport, a town of 750 people in central Ohio, each year feeds buttered corn on the cob to more than 60,000 visitors (next page). I got there early on August 30th;

*See "Our Land Through Lincoln's Eyes," by Carolyn Bennett Patterson, GEOGRAPHIC, February, 1960.

The Midwest

Lincoln's New Salem: In this Illinois village, young Abe was postmaster from 1833 to 1836. Then the post office closed, not to reopen for 104 years. John W. Gellerman, a local personality, has been in charge the past 24 years. Touring the Midwest, I learned that what is humorous in Maine may not be funny at all in Iowa. But I found the Midwesterners just as friendly.

From a fire-truck ladder, I photographed the 730-foot ore carrier *Edward L. Ryerson* in the MacArthur Lock, which connects Lakes Superior and Huron. Helpful officials of Sault Ste. Marie, Michigan, lent the ladder.

A sweetheart of the Sweet Corn Festival nibbles corn on the cob at Millersport, Ohio. Annually the town of 750 feeds 60,000 visitors.

After touring the country by station wagon, I designed and built this trailer. Some day I hope to manufacture it in India. Here Chicago provides the backdrop.

Children match footsteps of young Abe. Lincoln's statue on the Wabash River commemorates his arrival in Illinois in 1830.

Rosy cheeks blend with the blooms at the Tulip Time Festival in Holland, Michigan

This is a joke on me. It is a custom of many newlyweds in Detroit to pose for pictures in the gardens of Belle Isle Park. This bride with a baby startled me. I did not know that the child belonged to a bridesmaid and was the godchild of the bride. Members of the wedding party roared with laughter.

Model in a garlanded swing welcomes spring to Louisville, Kentucky, after a long winter. Holding pastel-colored hosiery, she decorates a living garden in a department store. Among the flowers I saw a wishing well and watched people tossing in coins. Their contributions went to charity.

the three-day Sweet Corn Festival would begin that afternoon.

At the festival, people swarmed around the huge boiling vats, tanks about a yard wide and 20 feet long. The cooking corn sent out clouds of sweet steam. Scrap wood that Millersport people had collected for a year fed the flames. I saw broken furniture on fire, old barrel staves, pieces of fluted columns.

Corn-eating Techniques Vary Widely

Each ear of corn cost a dime. Dipped in melted butter, the golden corn was served on paper trays which everyone discarded. I had just started my second ear when a student in sociology at the University of Cincinnati introduced himself.

"I am writing a thesis about how people eat corn," the young man said. "I notice you hold the fat end in your left hand and eat from left to right. But look around. You'll be surprised how many different ways there are."

He was right. One man licked the cob after each mouthful. Another held his ear straight up-and-down and stripped the kernels from top to bottom. There was a lady who smelled each ear before she started nibbling. One old man bought three ears at a time, broke each in two, and ate all the thin ends first.

I couldn't help staring at a small girl about seven years old. As her mouth moved along the ear, every other pair of kernels was left untouched. Finally the child grinned at me, and I saw that two front teeth were missing.

I was thrilled to be heading into the American West. I looked forward to the seas of grain and grass, the mountain meadows, the windy passes.

I crossed the Red River of the North into North Dakota and asked the Fargo *Forum* to recommend a farm that I might visit.

"Why don't you have a look at Governor Guy's place," said the city editor. "It's not far from here, near Amenia."

I drove out to the farm owned by Governor William Lewis Guy. A young man about 15 years old, carrying a pail of green paint and a brush, opened the door. I introduced myself and explained that I would like to meet the governor or someone who could show me the place. The young man said the governor was in Bismarck, the capital, but that he was his son, Billy Guy III.

"I'm working here during my summer vacation," he explained. "I'm painting a farm truck today."

I was surprised to find the son of a governor doing such work.

"What will you be when you grow up?" I asked Billy Guy.

"A farmer, I think," he replied. "I couldn't be a doctor because I wouldn't like to cut

people up, and I wouldn't like to be governor because you have to work longer hours as a governor than as a farmer."

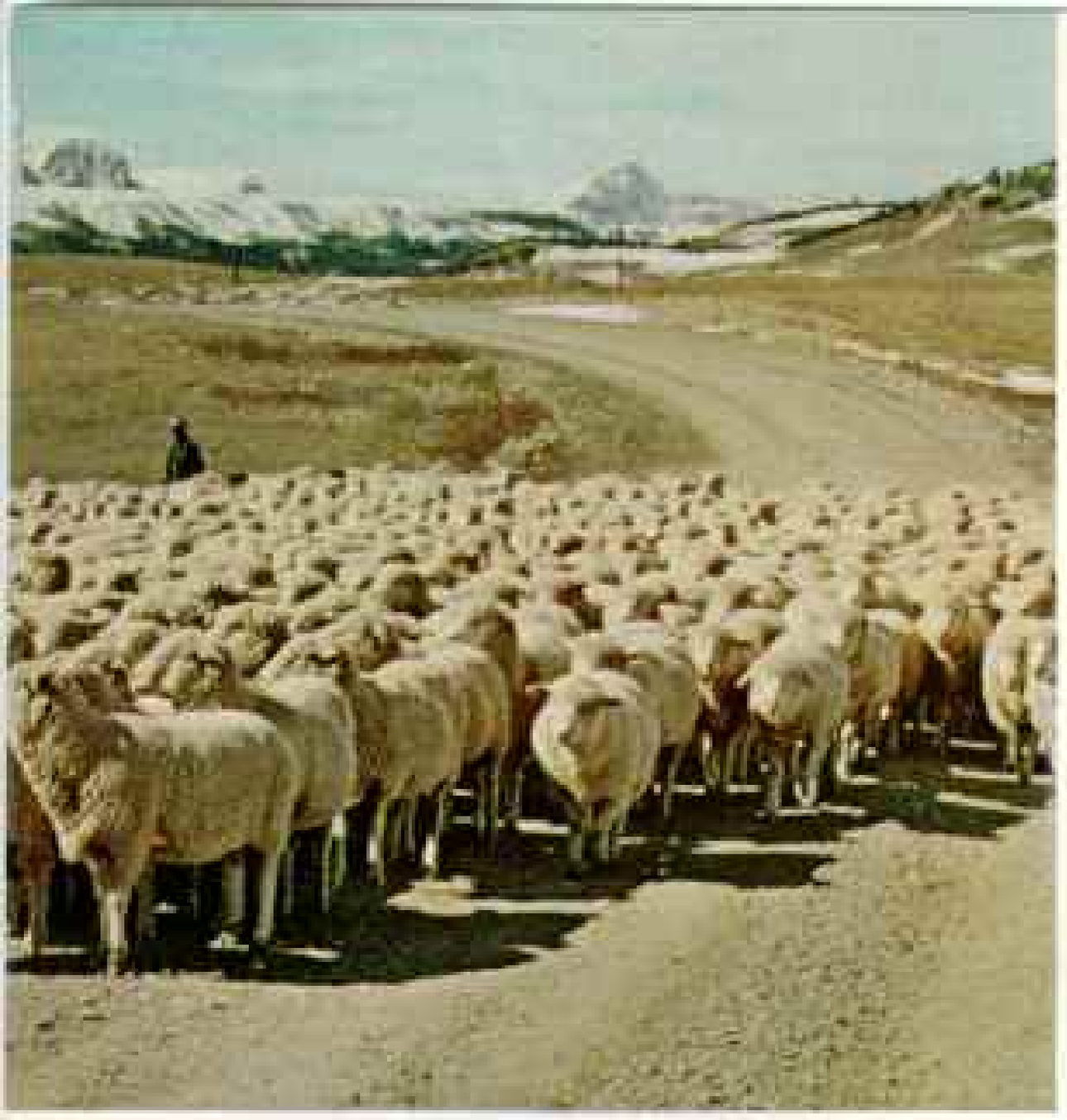
On 900 acres this farm produces wheat, flax, barley, corn, soybeans, sugar beets, and alfalfa. The Guys raise about 125 hogs each year. They keep a flock of 140 ewes.

When I drove on west to Bismarck, I went to the capitol and had the honor of meeting Governor Guy. Later, the whole family posed for me in the capitol grounds at the statue dedicated to the American pioneer family.

Moving much of the time, I found it hard to get my shirts laundered. At times along the route I would stop at a university town, find a friend from India or Southeast Asia, and trade him six soiled shirts for three clean ones. But often I had to buy new ones.

Laundromat Solves Shirt Problem

By the time I reached Sioux Falls, South Dakota, I had 26 soiled shirts; I just couldn't afford to keep buying them. I visited six laundries but couldn't find any place that would



Sheep roam Blackfoot Indian country in the foothills of the Rockies in western Montana. The Indians, who live in scattered farmhouses, own and herd cattle more often than sheep. I met many of them; they lead hard but fulfilling lives.

Stripes on a highway in North Dakota stretch between wheat fields that roll as far as the eye can see. To me the stripes signify America. They are the links of continuity, unity, and prosperity. Though far from cities, this region is not out of reach of industry and progress.

Pikes Peak provides a feast for the eye at breakfast time. These friendly people invited me to share their meal. The gentleman recognized me as a man from India. I liked Colorado's old mining towns; I even ran into a bearded prospector who still mines with methods used a century ago.

Chief of the Blackfeet, White Calf would let me take his picture only when his son assured him I wanted to show it to the chief of "my tribe" back in India. White Calf insisted it be taken out of doors because he wanted his beloved Montana landscape for background. He holds a treasured tomahawk, which he presented to me. It will be a prominent display in my home of the future.

wash the shirts the same day. Finally a newspaperman suggested a Laundromat. There I washed six shirts for 20 cents, plus 20 cents for use of the dryer and 10 cents for the soap.

There were about a dozen other people in the place, mostly women, and for more than an hour I listened fascinated to the flow of gossip and discussion of fashion and politics. My presence didn't seem to deter them at all.

"This is the only place in town where we can get away with minding other people's business," one woman told me with a grin as she dropped more dimes in a machine.

On my way west, I had the privilege of shaking hands with former President Harry S Truman at the Truman Library in Independence, Missouri. And in Abilene, Kansas, I visited the Eisenhower home. A plain white structure, it impressed me as being just like ten thousand houses I had seen all over the United States.

It showed me the quality of what people call "the American freedom of opportunity" to see the grass-roots background of these two small-town boys who became Presidents of the United States.

As I drove across Kansas in the first week of September, I learned that one of the earliest

snowfalls on record was coming down on the central Rocky Mountains. Late the following day I came in sight of far-off white-capped peaks, hundreds of miles of them, lying across my path just as they blocked the covered wagons of the pioneers.

Frozen Pie Proves a Poor Snack

The evening I reached Laramie, Wyoming, I did not feel much like eating. I went into a supermarket and bought a quart of milk. I asked the salesman for a pie. He brought me one from a frozen-foods case. Late that night, I was surprised to find the pie was not cooked. I had thought it was ready to serve. I had to eat the cherry filling with my milk, and throw away the dough of the crusts.

I entered Yellowstone National Park—what I call "America's drive-in zoo"—late in September. Snow was already building up on the mountains. But plenty of bear and deer were still running about. Some of the bears took strolls along the road (below).

Everything was closed up for the season. Snow started to fall heavily. Driving was dangerous. But I finally managed to get out of the park by way of the West Loop Road and the town of Gardiner, Montana. I believe

Heavy snow from a sudden storm turns a forest into a fantasy in Mount Rainier National Park, Washington. When I saw the melting snow, mother of rivers the world over, I had to park and get out and touch it. For this is how you learn geography—from nature. Altogether, I visited 15 national parks; each opens a window upon wonders of its own.

Drive-in zoo. Yellowstone National Park in Wyoming will always be that to me. It is more than beauty; it is living space and playground for bear, deer, buffalo, and birds.

I was the season's last tourist to leave the park through the North Entrance.

I remember, one night just east of Glacier National Park, how the moon made the Montana Rockies seem cut from cardboard. All the ridges were so sharp, all the slopes so flat. I spoke into my tape recorder, saying: "Tonight there is a full moon and a wonderful moon and a beautiful moon. I guess it is a Rocky Mountain-type moon. I feel moonsick, but I do not know what moonsickness is. Maybe it is something somebody will find out about someday. The moon is on my right as I drive on my way to Browning. It is cold again tonight. All the water holes this morning were skimmed with ice."

Indian Meets Indians

I was fascinated, of course, by the people Columbus mistakenly took to be the natives of southern Asia and the East Indies—the American Indians.

At Browning, Montana, I paid a visit to one of western Montana's oldest citizens, Blackfoot Indian Chief James White Calf, who said he was 103 years old (page 573). Chief White Calf told me it was his brother, Two-Gun White Calf, who posed for the Indian on the face of the United States buffalo nickel. The designer of the coin has recorded, however, that the head was a composite rather than a likeness of any one Indian.

When I was ready to leave, I offered Chief White Calf a basket of peaches. I told him it was September 24th, my birthday, and explained that it is a tradition in my family to honor one's own birthday by gifts of fruit to friends.

Through his son as interpreter, Chief White Calf presented me with a stone-headed tomahawk. "Wait," said the chief. "I must think up a good Blackfoot name for you."

We were now on a basis of comradeship, and we sat down and chatted for five hours as the chief tried to find out what I was like and whose soul was alive in me.

"How did the Indians lose the West?" I asked Chief White Calf. "Was it the disappearance of the buffalo?"

"No," the chief answered. "It was the fences. They were strung across our country. It stopped our horses. We could not move after the fences came, and the feeling of being hemmed in demoralized us."

Finally, the chief raised a hand for silence, and spoke.

"You are Red Horse Rider," he announced.

Chief White Calf said the name had a his-

Disneyland: Yankee showmanship. The ingenuity of Walt Disney spreads round the world.

Freeways of Los Angeles, like the subways of New York, are vital arteries of a far-flung city.

The West —truly the last American frontier. To my surprise, I found the rush still on. More people by far are moving west today than at the height of migration in pioneer days.

BIG, BUSY, fast-moving. Adjectives such as these spring to mind when I think of the west coast. Washington's Grand Coulee Dam is the largest concrete structure built by man. Logs ride a ramp from water to mill at the Simpson Timber Company, Shelton, Washington. Go-carts propel teen-age racers 45 miles an hour at an Oregon track. For a moment of meditation, I visited the Sikh Temple in El Centro, California.

tory 74 years old. It was a name he himself had won by stealing a red horse from Crow Indians. Chief White Calf gave the horse to his father, but White Calf himself was usually the one to ride it.

There was a coincidence about the name.

I had parked my car 200 yards away. Chief White Calf could not have seen me drive up, for he has very weak eyesight. I was driving a red station wagon. I promptly christened it Red Horse.

Birthday Cake Without a Candle

At the Elk Horn Bar and Restaurant in Hungry Horse, Montana, I mentioned to the waitress that it was my birthday. She told the proprietor and the other guests.

The proprietor, William A. Matelich, came over and greeted me: "Welcome to the Elk Horn. This is your birthday, I hear. Tonight is party night. In the slack season, five days I sell meals, but on the sixth everything is on the house, including a turkey dinner."

Everybody trooped out to Red Horse to sing into my tape recorder:

"Happy birthday to you . . . Happy birthday to you . . . Happy birthday, dear Rek-hi . . . Happy birthday to you."

We had excellent food and drink and wonderful music, all dedicated to me. There was a cake, but no one could find a candle.

"Tell me when you're ready to blow," said Bill Matelich, "and I'll switch off the lights." I blew, the lights went out for a moment, and the people cheered. I felt very emotional toward these good people, all strangers, all friendly.

I saw Grand Coulee and many other dams and bridges across the Columbia River (preceding page). At Celilo Falls in Oregon I met a party of Indians looking out over the flooded area where the tumble of water had once rushed down. The Dalles Dam had obliterated the cataract and the traditional fishing place of the Indians.

There was no way from their clothing to tell that these men and women were descendants of the first dwellers in this land. They wore suits and shirts, dresses and shoes like any other Americans.

I stood around for nearly an hour, but the Indians apparently were suspicious of me. When I tried to speak with them, they would not answer.

I pulled out a copy of a Spokane newspaper showing a photograph of me talking with Blackfoot Chief White Calf. This broke the spell, and the Indians at once became friendly and talkative. The oldest woman said that with the inundating of Celilo Falls the last trace of Indian culture in the area had been lost.

But another elderly lady disputed this. She said a new culture, blending new and old, was already developing among the Indians. Pointing to the dam she said: "It is just the same as with the salmon. They come up the stream many hundreds of miles from the sea and give their lives so that new salmon may follow them. So the old Indian way of life is giving way to a new one. But I believe the Indian character of our people will survive."

In the State of Washington, I was delighted to find a valley called Cashmere. It is named for the town of Cashmere, which in turn takes its name from the Kashmir Valley, favorite resort of India's Mogul emperors. Cashmere, Washington, is famous for apples. The Asian Kashmir is a famous apple region, too.*

New Friend Offers Gas and a Loan

When I reached Seattle, I was distressed that no money order from my Detroit bank was waiting for me at Western Union. I stopped at a gas station to place a long-distance call to Detroit. I explained that my gas tank was empty and that 46 cents was all the cash I had left.

The gas station was run by a Japanese-American. He said, "I can fill your gas tank for you and loan you some money."

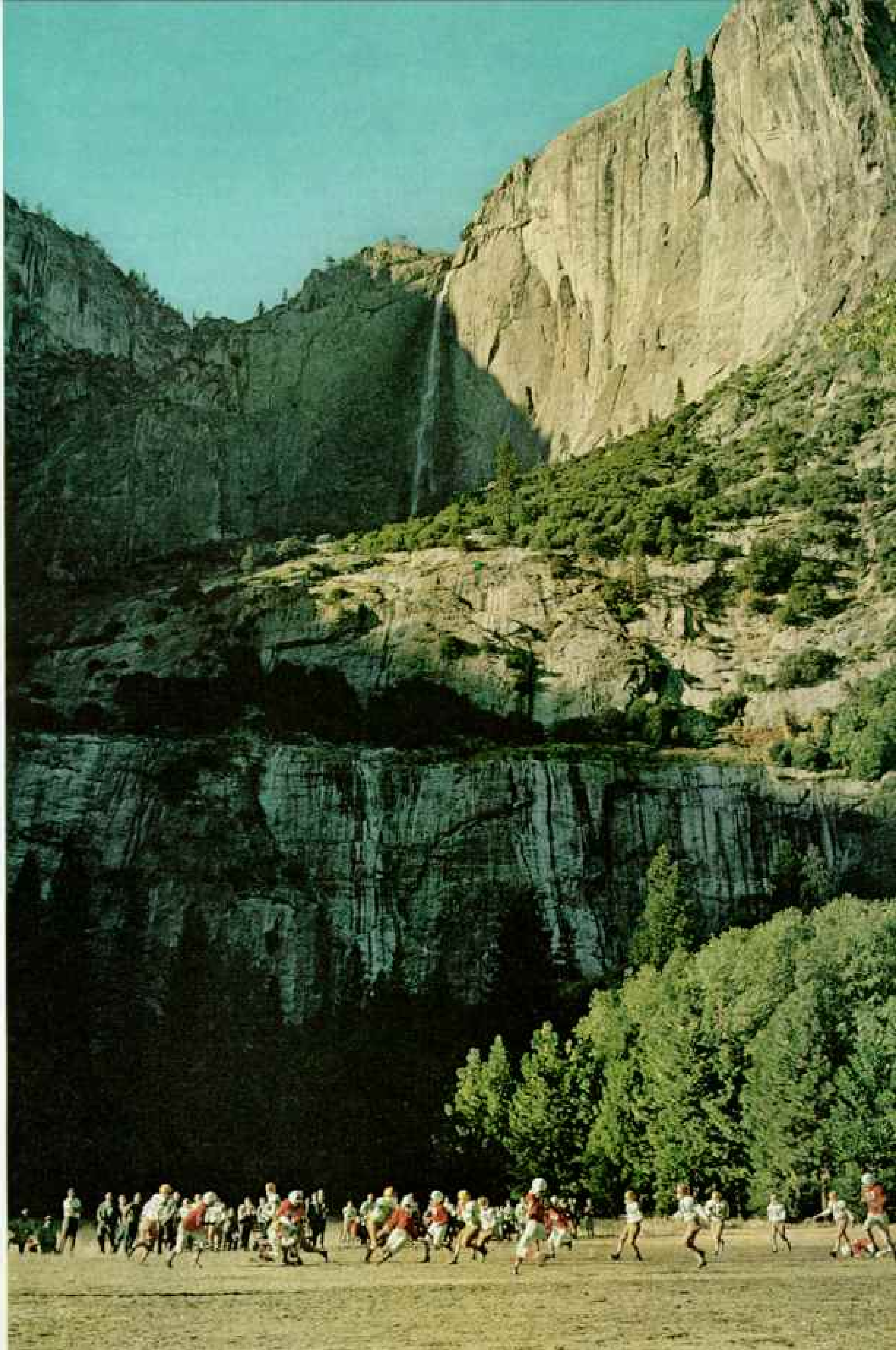
"You don't know me," I said.

He replied: "You are a guest in my country, and you would not be here if you were not wanted." His words "my country" impressed me deeply.

"How can this be your country?" I said. "You look more like a man from the Orient."

*See "The Emperor's Private Garden: Kashmir," by Nigel Cameron, GEOGRAPHIC, November, 1958.

This magnificent setting in Yosemite National Park, California, where Upper Yosemite Fall tumbles 1,430 feet, made it difficult for me to concentrate on the football game. Scenes like this make man realize how insignificant his creations are compared to nature's. Players near park headquarters appear dwarfed by the grandeur that surrounds them.



"My name is Ken Kodama," he replied. "I am of Japanese extraction, but born in the United States, and so is my wife. We have four children; the oldest is 12. My father came from Japan when he was 18 and worked in sawmills and later owned a greenhouse."

"You were here during the war?" I asked.

"We were relocated in a camp with 15,000 people at Tule Lake in California. We were there a year and a half.

"In a war you never know who is who," Mr. Kodama added philosophically. "Even a brother may turn against his brother. I do not blame our Government. They had to take that action to bring peace soon."

Ken Kodama gave me $5 worth of gas and a $10 cash loan. I repaid him the next day when the money order came through. My experience with Ken Kodama made me recall boyhood advice given by my father.

"Remember," he instructed me, "how wonderful generosity is, for it binds two people in affectionate esteem."

One foggy evening in Seattle, giving no thought to the weather, I went to a drive-in movie. The ticket seller, from his seat in the booth, called out, "Why one ticket? Where is your girl friend?"

"I am alone," I said.

He did not believe me and came out and looked into the car. He shook his head, saying, "What do you want to go in for without a girl? You can hardly see the screen in this weather. Well, if you can't see the movie, come back and I'll refund your money."

I drove in. The lot was half full. But the image from the projector never reached the screen in the fog. The couples in the cars did not care. I went back to the ticket booth. The man refunded my money, saying, "Well, don't say I didn't warn you."

"Maharaja" Expected to Tip Lavishly

Visiting Hollywood, California, I drove over to a hotel in Beverly Hills to pick up a letter that a friend had said he would leave

I PAUSED ***before the slot machines in Las Vegas—and lost $40. Dinner and a floor show proved a better investment!***

KODACHROMES BY BEN SPIEGEL © N.G.S.

there. At the door an attendant helped me out of my car and parked it.

At the reception desk the letter was waiting. When I stepped out the front door, I didn't even have to ask for my station wagon; it was there in the hotel driveway waiting for me. I took a half dollar from my pocket and handed it to the attendant. He gave me a look of deep scorn and surprise.

"How much do you expect?" I asked.

The attendant managed a smile and said, "At least five bucks."

"Why?" I asked.

"That's the standard rate we get from you mahoo-roo-jaws," he replied. "Top people from India, like you, you know."

I studied the man's face for a moment and pulled out a dollar bill. "I am a poor maharaja," I said. He snapped up the dollar and I went on my way.

More people from India live in California than in any other state. California even has a town named Delhi, after my hometown.

About 100 Indians live in and near El Centro, chief town of the Imperial Valley, which reaches into Mexico. Judge D. S. Saund, former Congressman from California's 38th district, was born in India.

In this area, known as the "American Sahara," I waded over rippling sand dunes, but "oases"—irrigated lands—cover most of the valley, which produces great quantities of cotton, alfalfa, and garden vegetables.

Sikh Services Held in California

I attended Sunday service at the Sikh Temple in El Centro, one of two in the U. S., the other being in Stockton, California. At home, we must remove our shoes, entering a Sikh temple, and sit on rugs. Here in El Centro's big temple, we wore our shoes and sat on chairs. But the devotions and prayers were the same ones I had always known (page 577).

Las Vegas, Nevada, is a red-carpeted fantasyland where everything is arranged to make you feel rich and important and free

Texans do talk big—they brag—but do not exaggerate. They live in a big country.

Mission in the desert. Could it serve any purpose, I wondered. When I went inside San Xavier del Bac, near Tucson, Arizona, I learned from the priests that their school is educating the Papago Indians, giving them a new hope and a new vision by molding them into the contemporary way of life.

and easy with your money. For five days I stayed in one of the famous hotels in this gambling town that seems like an incredible mirage in the midst of a burned-out desert.

I stood around for a while watching the patrons play the slot machines, but I did not join in any of the games. The manager grew inquisitive and started a conversation. I told him I was writing a book about the United States and was making a study of "one-armed bandits."

"Why don't you play a few times?" he asked. "You will get to know them better."

"No, I just want to watch," I said.

"Maybe it is against your tradition," he said. But he went to the cashier and came back with a cupful of nickels and said to me: "Here, play. This is on the house."

"Why do you give me this?" I asked.

"It's a secret, but I'll tell you. For the simple reason that you will leave behind what I give you and all you yourself can afford to gamble from your own pocket."

That's the way it turned out. I lost the nickels he gave me and $40 of my own money (preceding pages).

Weeks passed—and many, many miles—before I came to the place where the Huey P. Long Bridge arches across the Mississippi like a huge gangplank to another world. This other world is New Orleans, still to some degree the frontier riverboat town.*

I found New Orleans pleasantly haunted by its past, a rather bizarre past echoing the contrasting customs of French, Spanish, Anglo-American, and Negro cultures. The cemeteries reflect the strange heritage. Names of the dead often show a mixture of national origins. Ornate tombs, built above the ground because of the high water table, stand jammed together in rows like the houses of miniature cities.

On All Saints' Day, November 1, people throng to the cemeteries to honor the dead, an event that has aspects of a family reunion. Departed relatives are discussed with casual affection. Picnics are spread beside the tombs.

Food is dear to the heart of New Orleans. The city is known for its famous restaurants, and there are many raw-oyster bars. I had never eaten oysters before in my life. I visited an oyster "factory" more than 100 years old, where scores of Negroes sat sorting and shucking the shellfish. Many of the sorters were descendants of slaves who worked right here more than a century ago.

The manager took me to Antoine's, perhaps the city's most famous restaurant. My

*See "New Orleans: Jambalaya on the Levee," by Harnett T. Kane, NATIONAL GEOGRAPHIC, February, 1953.

WATERCOLOR PAINTED BY JOGINDER SINGH KOHLI AND ENTHRONED BY THOMAS NEBBIA © N.G.S.

host ordered a dozen oysters on the half shell with two kinds of sauce. He ate them with an expression of ecstasy. With some misgivings, I took one raw oyster from his plate and managed to gulp it down. A whirlwind twisted my stomach.

"Try the oysters Rockefeller," my host suggested. "They were invented in Antoine's."

They came baked with a sauce of shallots, celery, and secret ingredients. These I found quite palatable.

Miami Extols the Orange

When I reached Florida, in December, the orange harvest was at its height. I arrived in Miami in time to see the King Orange Jamboree Parade, a New Year's Eve tribute to the citrus fruit that enriches the state.

Fifty-two floats and 45 bands, spangled bathing beauties and pomponned drum majorettes—the panoply mirrored America's progress from colonial days to the Space Age.

Never have I seen a procession as colorful as this. It bubbled over with a kind of giant playfulness.

New Year's Day in Miami reaches its crest of excitement in the annual Orange Bowl football classic. That year's game pitted the University of Colorado against the Tigers of Louisiana State University. In the stadium, 63,000 people screamed themselves hoarse.

It started to rain, but that was a good thing for me. Miss Universe, gorgeous blond Marlene Schmidt, held an umbrella over both of us, and I crowded close to hear her express the hope of some day visiting India.

Film star Debbie Reynolds was there (page 586). "How would you like to go on a tiger shoot in India?" I asked.

"You better be serious," the lovely star replied. "I've always wanted to go on *shikar*. I'll take you up on that. Give me your address."

I did, but she hasn't.

I heard a newsman call the game "real rock-'em, sock-'em, hard-nosed ball." Football confused me—so many men sprawled on the ground so much of the time. The victors, 25 to 7, were the Tigers of L.S.U.

At the end of the game, police helicopters appeared overhead to give patrol cars radio instructions for breaking up jams of homebound traffic. I thought of the homing pigeons my brother Charanjeet used to release to tell my father when he would be back from boarding school.

After a leisurely tour of the Southeast, I arrived in the Capital of the United States.

It was July 4, the birthday of the American Nation. The White House received 12,086 visitors that day.

Hungry pelican, so tame it ate from my hand, perches on a piling in Miami's Biscayne Bay. Booming Miami epitomizes the Southland today.

French Quarter artist portrays visitors to Pirates' Alley, New Orleans. He and his fellows tend to be nonconformists in both art and outlook.

Admirer places flowers at the Huey P. Long monument in Baton Rouge, Louisiana. The Senator's statue stands at the head of his grave facing the State Capitol, where an assassin shot him in 1935.

The South

I HAD HEARD of southern hospitality, and now I have tasted it. Though I was a complete stranger, the people of the South made me feel at home.

St. Bernard pup gives young visitors a ride in a children's paradise—Dog Land—near the town of Chiefland, Florida.

Blue ribbon winner proudly shows his prize rooster during a 4-H fair in Florida.

In Washington, pride and pleasure were the order of the day. I was at the Washington Monument early to find the best angles for pictures during the evening fireworks. I had to pick my way among crowds of people sitting and lying on the green lawns. They spread blankets, unfolded chairs, ate picnic suppers. By dark, 138,000 people had assembled.

I learned that 1,389 pieces of fireworks would be set off, with a burst of 750 pieces at the climax. But before the fireworks, the story of the flag was enacted by the United States Army's 1st Battalion, 3d Infantry, Old Guard. The soldiers, dressed in colonial uniforms, displayed first the flags of the Thirteen Colonies. At the conclusion they held aloft the waving banners of all 50 states. This brought the lounging crowds to attention.

"Last year on this day," a man beside me said, "I was celebrating the Fourth of July in the United States Embassy in Bangkok."

Americans gathered together anywhere in the world would be celebrating the grand and glorious Fourth.

At the Lincoln Memorial next day I ran into a group of high school students from Baton Rouge, Louisiana. Two of them looked familiar. Yes, I had written down my name for them when I was in Baton Rouge.

When their teacher heard me saying something about Lincoln to these youngsters, she asked me to talk to the whole group.

"I knew the name of Lincoln before I heard the name of any other American President," I told them. "In India, Lincoln is often compared with our own Mahatma Gandhi. Both men faced overwhelming problems in their struggles to unite their countries."

Icy Barn Spawns Homemade Trailer

By now my American journeys equaled almost three trips around the world, and I was travel-weary. I settled down for many weeks in the Middle West. But I was already planning further travels. One of my goals was a trailer to take me from London to Singapore.

I considered several makes, but decided in the end to build the trailer myself. An executive of a small trailer firm at Wakarusa, Indiana, introduced me to a friend, who very kindly opened up a barn to me for a workshop.

I got an Elkhart, Indiana, factory to build the chassis for me. Another firm made the contoured trailer corners, lent me a rivet gun, and taught me how to use it.

It was a bitter cold winter. There was no way to heat the barn. Temperatures dropped to as low as 20° below zero.

This was hard for me, since I had never known extreme cold or snow until I came to America. I remember one day in the barn when I found that the eggs and apples I had brought for lunch were frozen. I boiled some water and dropped in both eggs and apples. It ended up that I had hard-boiled eggs cooked in applesauce.

Trailer Receives Shower of Friendship

There were five pet deer on the farm. They lived in a fenced area, and one day when I opened the barn door a deer jumped inside. My aluminum sheets for the trailer were cut out, lying flat on the floor. The deer ran over them. Now in one corner of my trailer, on the outside, I have a strange imprint—the hoof mark of a deer.

"How did a deer jump up there?" people ask me.

When my trailer home was ready for travel, I set out promptly for Detroit, my adopted hometown in the United States.

During my first stay in Detroit, Mr. George G. Mills came to pick up his wife Rosemary at a turban-tying class I had been invited to conduct at the YMCA. We were soon firm friends. George is the owner of the Dearborn Bar and Restaurant Supply Company.

Now George Mills did me an unexpected kindness in connection with my trailer. I invited several Detroit friends to a "trailer-warming." I bought groceries, meat, and refreshments, then drove to a department store, fully intending to buy the necessary silver and tableware, and utensils for cooking.

In the store I found such variety—so many styles, so many prices—that I was confused. Never in my life had I shopped for plates and knives and pots and pans. I gave up and drove back to my trailer.

When my friends arrived, I gave them the perishables I had bought for their dinner but couldn't cook, and asked them to be my guests at a restaurant instead.

Two days later Mr. and Mrs. Mills invited me to their home for dinner. All the guests of the earlier evening were there. Then I saw that tables and chairs were covered with plates, cooking utensils, kitchen cutlery, and silverware. There were blankets, sheets, pillowcases, towels, even napkins. It was a trailer shower for me!

I doubled back to Chicago and took my trailer to a big municipal parking lot. It was midwinter, and one night I ran out of liquid propane gas for my trailer heater. It was about five degrees below zero, and I got so cold I couldn't sleep.

"I'll go down to the Loop and check into a hotel," I decided.

I unhitched my station wagon from the trailer and drove off. In mid-town a police car suddenly came out of the moon and ordered me to stop.

"You're driving too fast and going the wrong way on a one-way street," said the officer. "What's the rush at two a.m.?"

At the Orange Bowl in Miami, I photographed movie star Debbie Reynolds and a charming little March of Dimes Girl. I hold one of three cameras generously lent to me by Nikon, Inc., after my own had been stolen.

Turban, trousers, and all, I went swimming with a shapely mermaid at Weeki Wachee Spring, Florida. She rides a sea horse in a show the audience sees through plate glass. When I asked to photograph her under water, the management discouraged me: "O.K., if you insist, but you must go in just as you are." Most people don't want to do that. I surprised everyone.

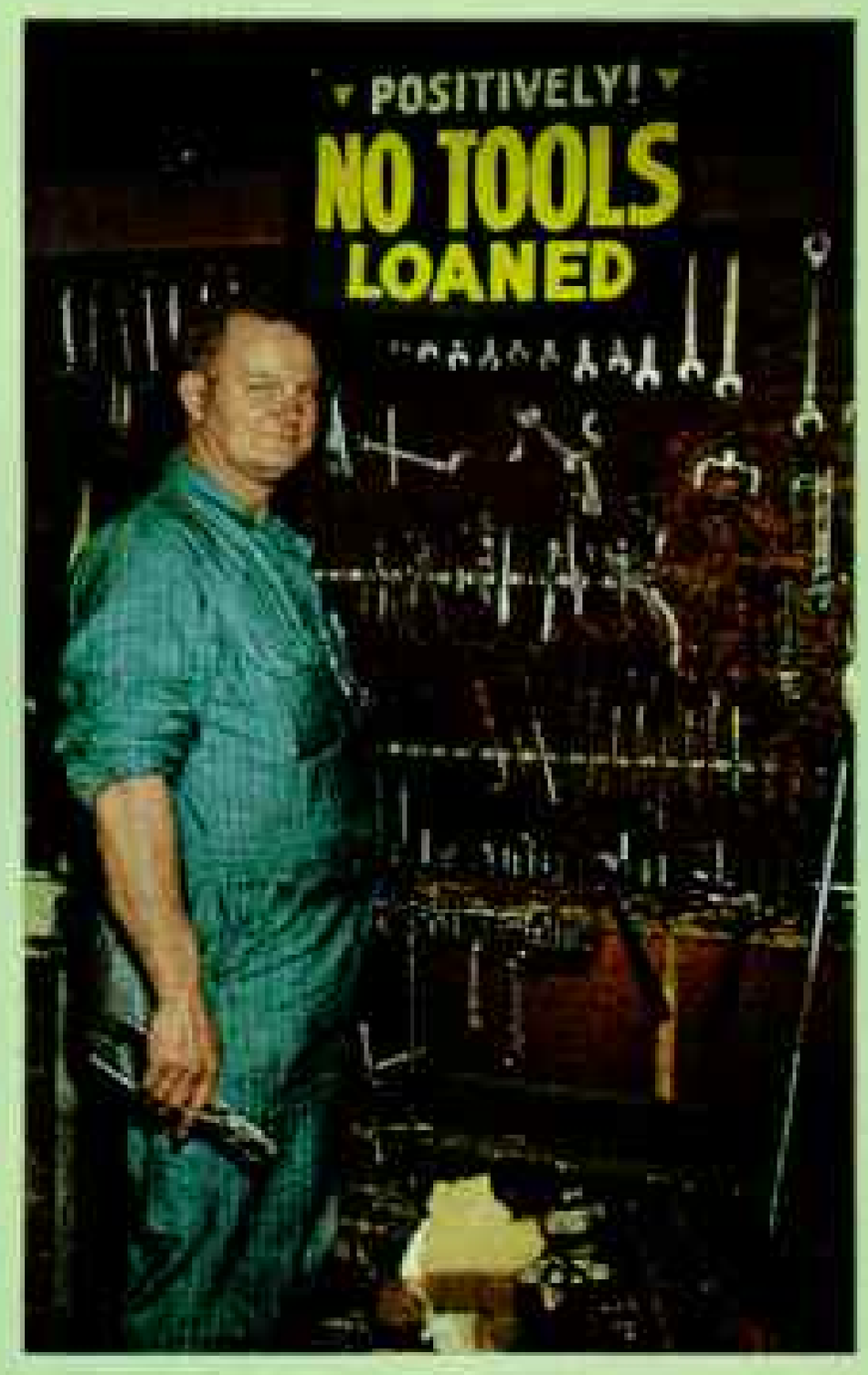
"I am a cold horse looking for a warm stable," I told the policeman. He laughed and studied my appearance, and I believe he decided I was a student.

"Right around the corner there's an all-night movie," he said. "For 90 cents you'll get entertainment and a comfortable place to sleep. Many nights I've done that in lots of towns downstate. You know—not much

A gallery of Americans

AS YOU CAN SEE from these pictures, my subjects represent the grass-rooters, the backbone of the United States. What unites them all is the Stars and Stripes and the U. S. Constitution.

Stock-car racer daredevils around a track in Massachusetts.



Motor mechanic in Cloverport, Kentucky, sticks to the edict displayed on a shop sign.

Indian in Cherokee, North Carolina, in the Great Smoky Mountains, helps adjust a becoming warbonnet.

Greek face reflects arduous years in the salt sea breeze and the southern sun: a sponge diver in Tarpon Springs, Florida.

Blazing but not burnt, steak sizzles on a chef's grill in Atlantic City, New Jersey.

Navajo shepherd, his wife, and bright-eyed children invited me to dinner in their hogan south of Glen Canyon Dam, Arizona.

Stairway to nowhere is all that remains of this man's home in Maine. He is tearing down the old house to build a new one.

Texans graciously pose for my camera at the opening of an art show in Houston.

Checking his team's reins, a Maine farmer heads to market.

Her first big catch. Nothing can disguise the pride of this Miami, Florida, visitor at the dockside weighing-in ceremony.

money and better things to do with it than pay hotel bills."

He waved me on with a wink. I went to the movie house. Of 40 or 50 people in the place, a dozen were sound asleep. In a little while I was asleep, too, and didn't wake up until eight in the morning.

Coon Rapids Bargain: Lantern and Rocker

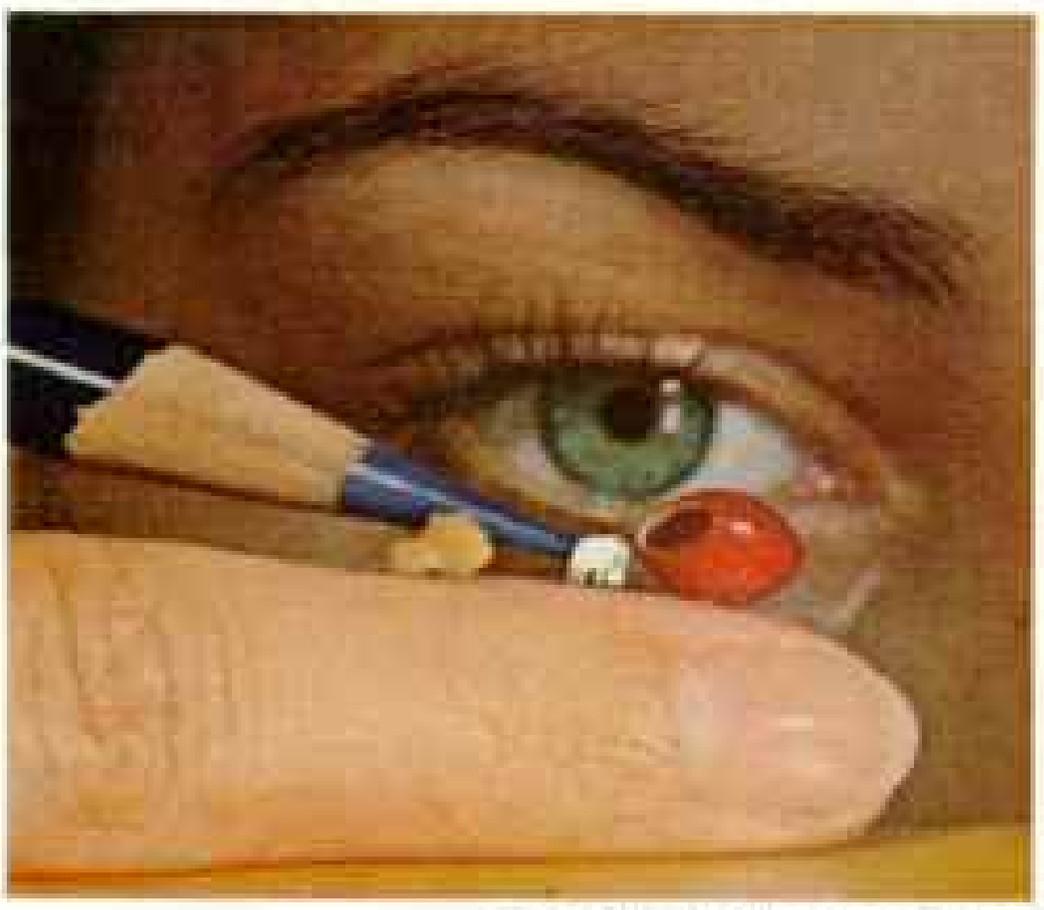
Midwinter is not the best time to visit Iowa, but I had to go to Coon Rapids. I wanted to talk with the American farmer, Mr. Roswell Garst, who advised Russia on hybrid corn culture and whom Premier Khrushchev later went to visit.

"I'm proud to be a commercial farmer," Mr. Garst told me. "Hybrid seeds, together with proper fertilizers and pest controls, have caused a revolution in U. S. farming, yielding bigger and better crops."

Mr. Garst told me the same thing could be achieved anywhere in the world—anywhere with a little water.

"It's not that the world is overpopulated. Its fields are under-fertilized. More and better food, with less labor—this can be a world-wide trend," said Mr. Garst.

I had to keep my trailer at a roadside park in the nearby town of Jamaica. The place had no power or water outlets. I needed a kerosene lamp for light. In downtown Coon Rapids, I found a shop with lots of lanterns, the same kind country people have used for a hundred years.



Smaller than a pencil lead, an ivory elephant fits into the *ratti*, or red bead shell. It is one of more than 200 I gave to new friends across the United States. Apprentices in India carve such objects with hand tools.

The shopkeeper asked $5 for a lantern. I turned away and looked at a nice old rocking chair, hand-painted on the back in gay colors. It intrigued me.

"That's 75 to 100 years old," the man said. "I'll let you have it for $10."

I started to leave. Business must have been slow. The man called after me, "How about a lamp and the chair for $6?"

People in the street stared at a man walking along with a rocking chair over his head and swinging a lantern at his side.

At the roadside park in Jamaica, I settled down for the night. It got colder and colder. I could not sleep. I lit my gas heater and the new kerosene lamp. I picked up a newspaper and tried to read.

The temperature dropped below zero. I was freezing. I got out of bed, pulled the rocking chair up to the stove, and lit the top burners. I slipped a sleeping bag over my lower half and pulled a blanket around my shoulders. But still I couldn't sleep.

I unwrapped myself and looked for a book. There was the one! *Profiles in Courage*, by John F. Kennedy. I lit the oven of the stove, crawled into the covers, and stuffed myself back into the old rocking chair. As I rocked and read through the freezing night, I learned what high standards the President-to-be had set for himself, standards that took him to the White House.

"America": Welcome Sign to the World

My mind bursts with impressions and ideas about America.

I still see gulls tumbling in the wind above Cape Hatteras, neon lights painting blurs of color along city avenues at night, the smiling faces behind the hands that by the hundreds have shaken mine.

I am astonished at the mobility of Americans—how much and how easily they travel. And there is the remarkable speed and ease of shipping goods all over this great country. Even in a village of 150 people, far from any seaport, you can buy bananas, a fruit not grown commercially within the continental United States.

I am bewildered by the generosity of Americans, their interest in a foreign visitor.

Altogether, it adds up to an impression of a land and people abounding in vitality. It adds up to a feeling of sincerest welcome, a feeling that America is a home with a door always open to the rest of the world.

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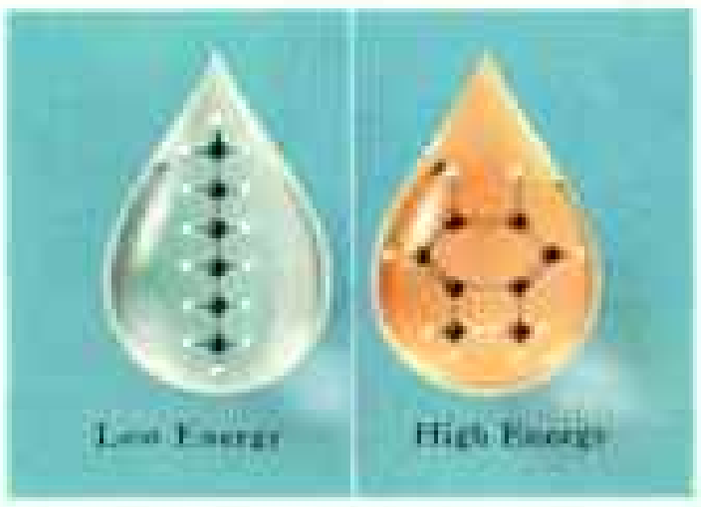
Articles and photographs of travel, natural history, and expeditions to far places are desired. For material used, generous remuneration is made.

COVER: Glaring mask and silk brocade deck a dancer of the Royal Cambodian Ballet (page 531).

NATIONAL GEOGRAPHIC MAGAZINE

Mrs. Robert F. Young learns about lively performance from her cub scouts—and from her Mobil dealer in Philadelphia, Pa.

Better all-round performance...one reason to depend on your Mobil dealer and his High Energy Gasoline



How Mobil Makes High Energy Gasoline

The story inside the drop. Mobil takes straight-run gasoline—the basic product all refiners start with—and further refines it so light, low-energy atom groups are replaced by huskier, high-energy atom groups. Basic gasoline is built up, condensed, filled with energy to give more power for long mileage per gallon.

Mrs. Robert F. Young found that her Mobil dealer's good advice—and good products like Mobil's High Energy Gasoline—can give her station wagon better all-round performance. She learned that a trained Mobil dealer can:

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- *Maintain your tires at safe pressure.*
- *Keep your crankcase filled with quality Mobiloil.*
- *Watch your cooling system, check for possible leaks.*
- *Lubricate your car regularly and thoroughly with the high-grade Mobil lubricants just right for your car.*
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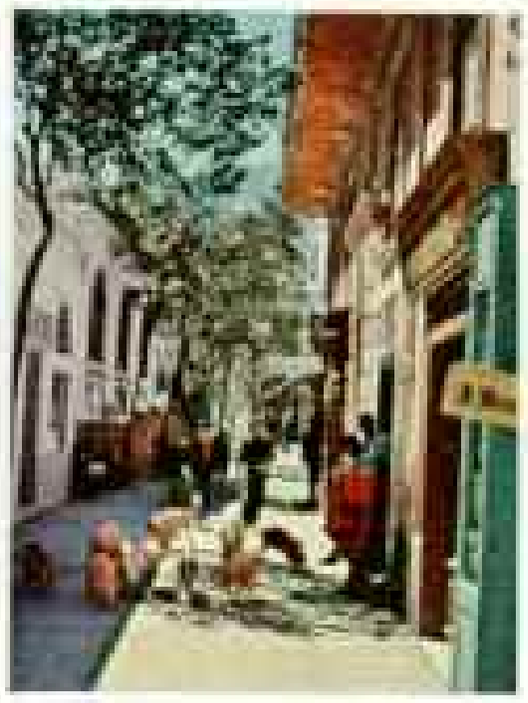

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exciting theory: The collision occurred not with earth, but the moon. If so, they reason, the shiny objects shown above may hold clues to the composition of the lunar surface.

Last year Dr. E. P. Henderson (left) of the Smithsonian Institution in Washington, D. C., and Dr. Brian H. Mason of the American Museum of Natural History in New York roamed 12,000 miles in Australia, collecting tektites and hunting meteorites with a metal detector. Their discoveries, which have enriched the collections of both museums, may help geologists solve this tantalizing mystery.

Your dues make possible dozens of such research projects, as far away as New Guinea's wilds and as near as your local observatory. Let your friends share the privilege of sponsorship as well as the pleasure of reading NATIONAL GEOGRAPHIC by nominating them for membership.

Australian desert yields messengers from space

WHERE DO TEKTITES come from? Some scientists believe these celestial marbles are the debris that caromed into space when a comet or a large meteor struck our planet. Eventually, earth's atmosphere recaptured them, and they fell as a shower of glassy pebbles. Others hold an even more

How could Pontiac become even more of a Pontiac?

Here's your answer: The '65 Pontiac Pontiac.

We started fresh with a bold new Pontiac look, as you can see, and plush new interiors, which you can just imagine for now. It's a quick car, even for a Pontiac, because our Trophy V-8s come on stronger than ever. You want Pontiac performance and economy, too? You want new Turbo Hydra-Matic and our exclusive low-ratio rear axle to wring extra mileage from gasoline and save and save and save. The '65 Pontiac is other ways new, too, with self-adjusting steering gear and bigger, better brakes. It's smoother riding (if you can fancy *that*) since we redesigned the suspension system, front and rear, around our curve-uncurving Wide-Track. (The inch-longer-than-last-year wheelbase also helps.) Now if you're wondering how you could become even more enthusiastic about Pontiac for 1965, just try driving one at your Pontiac dealer's.

How could Tempest become even more of a Pontiac?

Pontiac Motor Division • General Motors Corporation

Here's your answer: The '65 Pontiac Tempest.

It could look even more like a Pontiac and it does: stacked headlights and split grille and big, bright wraparound tail lamps. It could be longer and it is, by a handspan. Tempest certainly rides like a Pontiac on Wide-Track and its all-coil suspension. And Tempest surely goes like a Pontiac, whether you take the gas-saving 140-hp six, or order up a quick V-8: 250 hp on regular fuel, 285 hp on premium. We spoil you a bit in the '65 Tempest with interiors restyled in cloth and Morrokide, or all Morrokide. And tempt you with 12 handsome models, including a new Custom Hardtop Coupe. With Tempest looking and acting so Pontiac for 1965, you mustn't forget it's still priced down there with the other low-priced cars.

1965: The year of the Quick Wide-Tracks

Why fly to South America when the crowd is headed for Europe?

(That's one reason. The Chilean-Argentine Lakes are another.)

Hotel Llao Llao, an Argentine resort in the heart of the lake country.

Osorno volcano rises 8790 feet.

This is a South America you never imagined. Here are dozens of lakes, each a different shade of green. One is 40 miles long. Another, Teddy Roosevelt called "the most beautiful lake in the world."

Here are the most massive peaks outside of the Himalayas. Long-quiet volcanoes with eternal snow crowns. Boiling cataracts that shake the earth and thunder in your ears.

Here you can fish the best trout streams in the world, where a man to every five miles of water would make them "crowded."

Here you can settle quietly in cozy Swiss-style chalets. Get up late. Golf. Ride. Boat. Picnic along forest trails. At night, you can dance. Or gamble in a casino. Or simply wonder at the stars in a new sky.

When you're ready to move on, head East across the land of the gauchos to Buenos Aires for the biggest steaks and some of the best bargain-hunting you've ever known.

Or head North across lush vineyards to Santiago, Chile, a vibrant city known for its beautiful weather, beautiful women, and beautiful views of the Andes.

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Shhhhh

when 6 million boaters wanted a quieter outboard, what do you think happened to the new Mercs?

THE NEW MERCS

...so quiet, they sound like

New silence from SOUND engineering

Mercury engineering has developed a new silencing system that makes the new Mercs sound like they're far away. The new four- and six-cylinder Mercs are actually 50% quieter.

Anyone can silence a motor by wrapping enough fat padding around it but we didn't want to sacrifice Merc's slim, trim lines . . . *or performance.* Merc's silencing system required redesigning, new engineering . . . from top to bottom. Here's how we did it:

- New Mercs have a sound capsule cowling (metal, not plastic) that is elastically isolated from both the powerhead and the drive shaft housing. This fireproof cowling does not "broadcast" the sound from the engine.
- All connections for control cables and fuel hoses are *inside* the capsule and the openings are sealed with neoprene closures. The sound from the powerhead is effectively *trapped* inside the cowling.
- Mercury used a completely new principle . . . a wall of water . . . to silence the exhaust. The engine's discharged cooling water is used to surround Merc's new internal exhaust pipe and prevent exhaust noise from escaping through the drive shaft housing.
- This same wall of water, pressing against the sides of the drive shaft housing, damps out the sound resulting from mechanical vibration.
- Mercury's exclusive Jet-Prop was all-important to this new silencing system. Exhaust gases and sound are now carried directly from the powerhead, down the internal exhaust pipe and out through the Jet-Prop . . . where they are unceremoniously buried deep underwater.
- Merc's Dyna-Float, aircraft-type suspension system keeps vibration from passing through the clamp brackets to the boat.

ARE 50% QUIETER

they're far behind your boat

■ And to top it off, the new Meres have an elastically isolated steering arm to prevent sound from traveling out through the steering mechanism to the boat.

Yes, the new Meres *are* 50% quieter but it couldn't have been done with an ordinary outboard. It had to start with the engine:

■ In-line 4- and 6-cylinder design with inherent smooth balance.

■ Small bore and short stroke with smaller and lighter pistons, connecting rods and wrist pins for lower disturbing forces.

■ *Offset* wrist pins that eliminate piston slap.

■ Smaller parts with tighter fits throughout the engine.

■ Power-Dome combustion chambers that "squish" the fuel-air mixture and smooth out combustion roughness.

■ Flex-plate flywheels that reduce the normal working noises of the crankshaft.

■ Internal reed valves . . . sealed inside the crankcase to make them quiet.

■ Full-Jeweled construction throughout the engine.

More power from SOUND engineering

The silencing of the Merc is just part of the news for 1965. Mercury has a brand new 90 hp outboard . . . the Mere 900. The fuel economy of this powerful new Mere surpasses competitors' 90's and even competitors' 75 hp outboards. In power at the prop, it is second only to the 100 hp Mere 1000. And, of course, it has Mere's new silencing system.

All of the 1965 Meres have been restyled and the higher horsepower models have a lower profile. New engineering, such as smoother-action gear-shifts, water pumps with tremendous saltwater resistance, new reed valves, and redesigned cowls, drive shaft housings and exhaust systems make the 1965 Meres the newest in outboarding.

Sound engineering at Mercury again brings you the *highest* horsepower, the *widest selection* of power and the *greatest* fuel economy . . . in outboards that are 50% quieter. You'll get more boating fun and even more RUN for your money with the 1965 Meres . . . 100, 90, 65, 50, 35, 20, 9.8, 6 and 3.9 horsepower.

MERCURY

Little Kim was abandoned by her mother in an alley of Seoul, Korea. She was found curled up behind a box, shivering, hungry and frightened.

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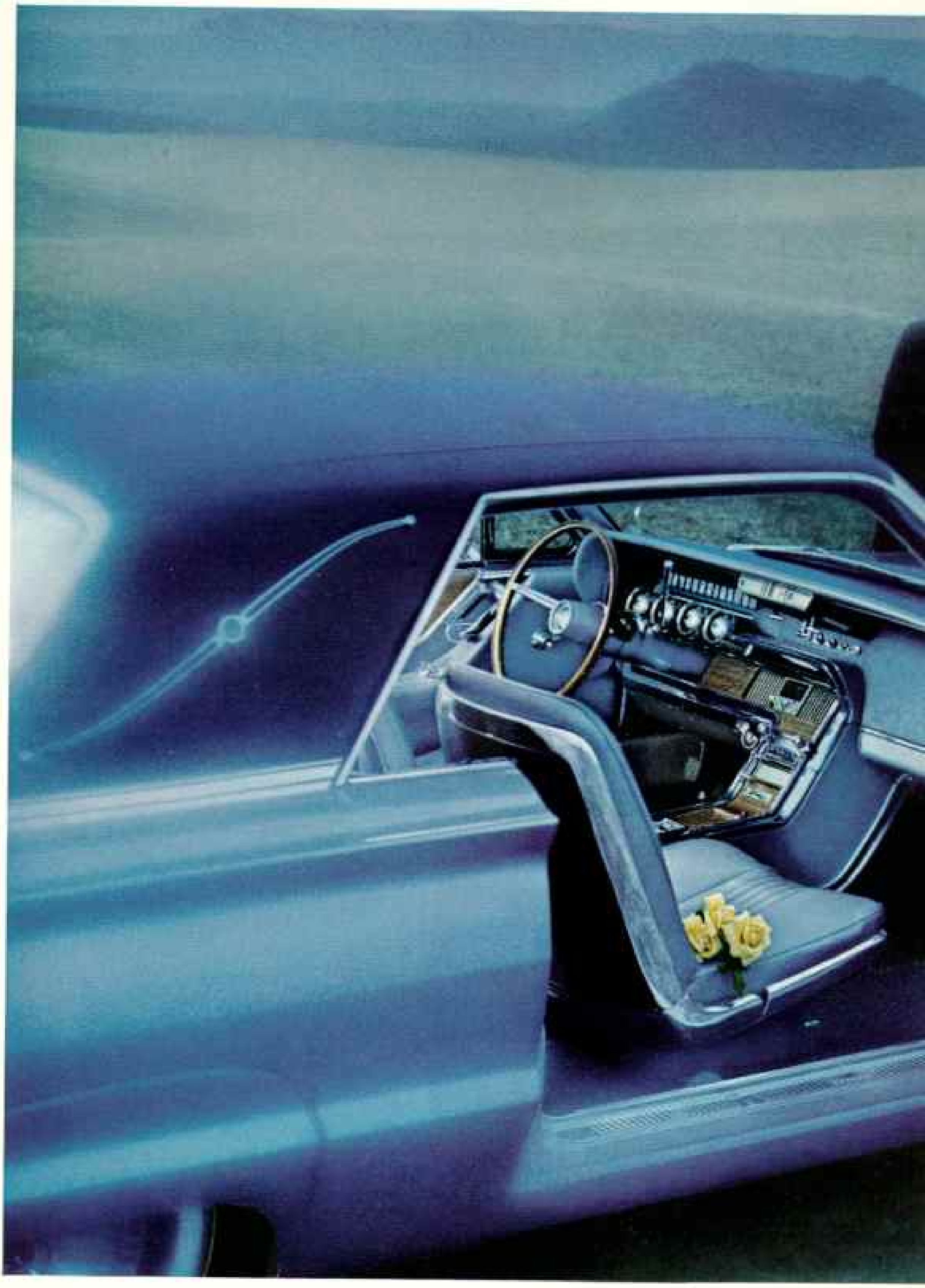

The Private World of Thunderbird for 1965

This is Thunderbird for 1965. Unique. Thoughtful. Here, automotive trends are set. And, this year, Thunderbird is again the innovator. Start with the Sequential Taillight Turn Signal . . . three lights in each taillight that flash, in sequence, in the direction of your turn. It is Thunderbird's alone . . . and standard. In fact, there are many Thunderbird extras you don't pay extra for: front-wheel disc brakes, power steering, Swing-Away steering wheel, radio, Silent-Flo ventilation, retractable seat belts and more. Other fine touches: optional warning lights to tell you when a door is ajar, fuel is low. But, as always, the most exciting part of the Thunderbird adventure is the way the car moves and rides and corners. Other cars you drive . . . this one you Thunderbird. Discover Thunderbird's Private World for 1965 at your Ford Dealer's.

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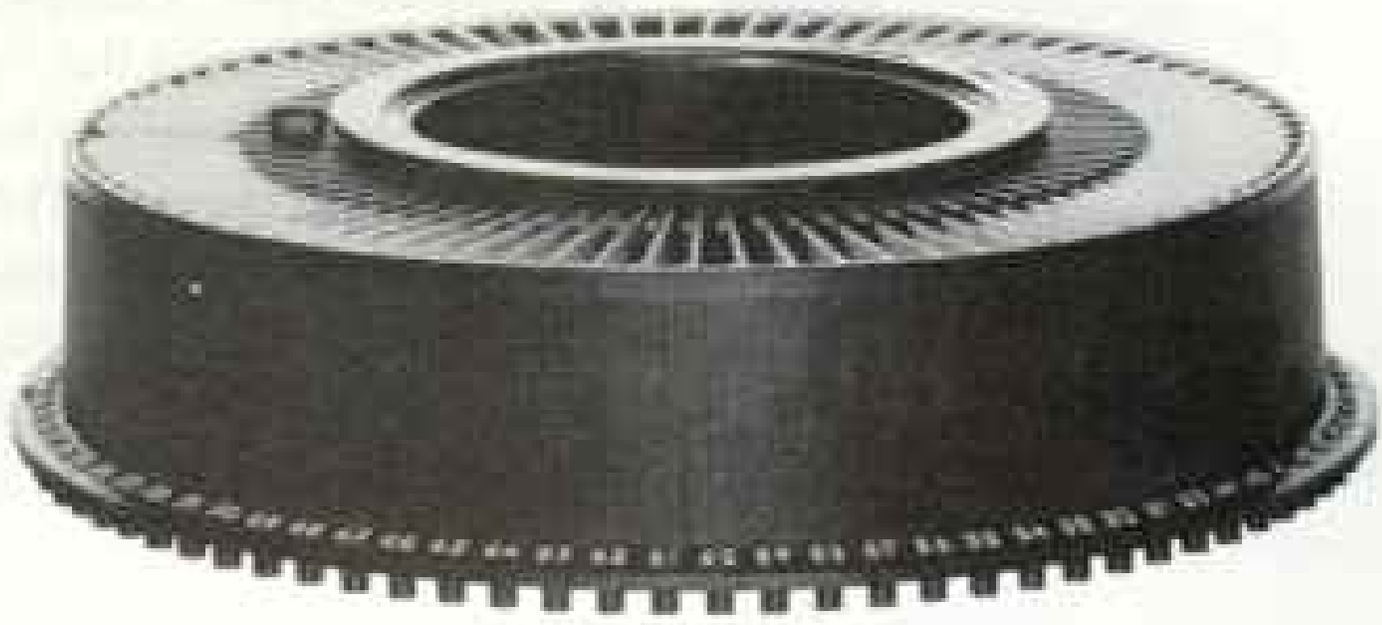

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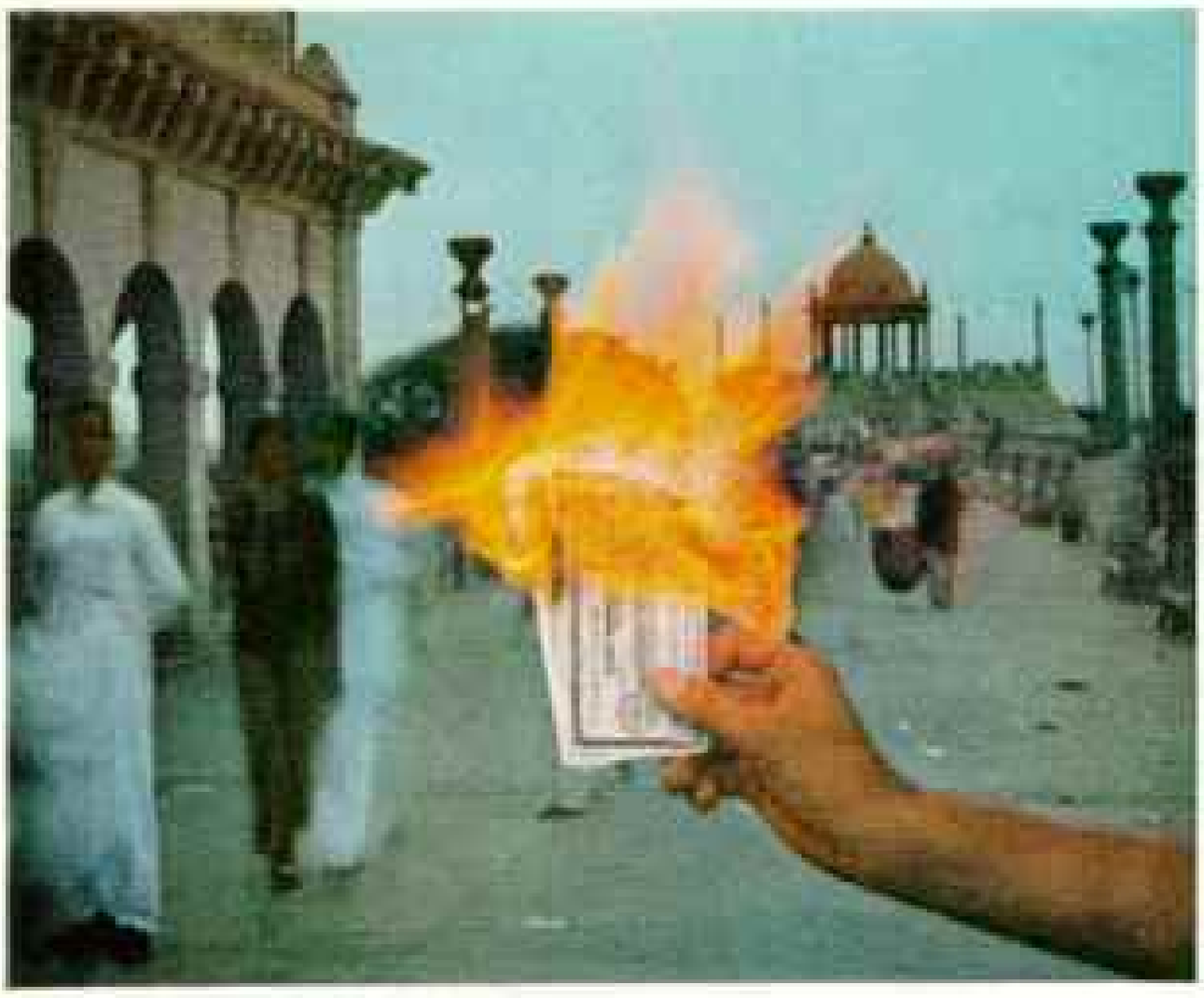

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$220 of Mrs. James Lee's Citibank Travelers Checks were destroyed by fire to make this test. Minutes later, this Madisen, Wisconsin traveler was directed to the Standard Bank Limited by her hotel. Result? An on-the-spot refund!

Test No. 2—Acceptability—in Mexico City

Pay for a guided tour of the famed Floating Gardens of Xochimilco? Buy a colorful serape? No trouble at all for Mr. and Mrs. Richard M. Sibley of Westport, Connecticut who found their Citibank Travelers Checks welcome throughout Mexico.

Test No. 3—Availability—in San Francisco

Mr. & Mrs. Fred A. Armstrong are a couple "on the go" who find Citibank Travelers Checks make the going easier. They buy theirs at First Western Bank. It's quick and simple at banks everywhere.

At the World's Fair!

All three advantages. Here, too, you'll find National City Travelers Checks easy to buy ...speedily accepted...fully refundable. When you "Come to the Fair" carry them—relax and enjoy the fun!

OFFICIAL TRAVELERS CHECK
NEW YORK WORLD'S FAIR 1964-65
Member Federal Deposit Insurance Corporation

Having trouble with weight control?

The Special K Breakfast is for you. Only 240 calories. Good in protein. 99% fat-free. Tastes fine, day after day.

THE SPECIAL K BREAKFAST

4 ounces of orange or tomato juice —or half a medium-size grapefruit

1 ounce (1½ cups) Special K with 1 teaspoon sugar

4 ounces skim milk

Black coffee or tea

(Only 240 calories)
(Only 0.62 grams of fat)

The Nutrition Story of Kellogg's Special K

One serving of Special K (1½ cups with ½ cup skim milk) supplies 14% of the recommended daily protein allowance for an adult man, and approximately these percentages of his minimum daily requirements as established by the Food and Drug Administration:

Thiamine (B_1)	48%
Riboflavin (B_2)	60%
Niacin	51%
Vitamin C	38%
Vitamin D	50%
Calcium	22%
Phosphorus	22%
Iron	36%

Have you ever started on a weight control program and dropped it long before your goal was reached?

According to recent studies, many diets fail because they are too dull to live with.

The reason the Special K Breakfast has been so successful with so many people is that it is a normal kind of meal. It looks appetizing and tastes good.

And it is based on the concept that eating sensibly at breakfast can help you eat sensibly at lunch and dinner.

While the Breakfast totals only 240 calories, it provides good nourishment: Complete high-quality protein. A balance of vitamins and minerals. And quick energy, too.

Mainstay of the Special K Breakfast is a unique, modern cereal—Kellogg's Special K. It is low in fat, high in protein, yet invitingly crisp and light. Its exceptional flavor is enjoyable month after month.

Doesn't Special K belong on your breakfast table?

"The best to you each morning"

Kellogg's SPECIAL K

DO YOU KNOW HOW TO RELAX?

TEST YOUR "RELAXABILITY"

DO YOU:	YES	NO
Wake up tired after a night's sleep?	☐	☐
Have trouble getting to sleep?	☐	☐
Worry about your health?	☐	☐
Toss and turn at night?	☐	☐
Start when you hear a sudden noise?	☐	☐
Worry about tomorrow?	☐	☐
Lose patience with people?	☐	☐

If you answer "yes" to any of the above questions, you may need to learn to relax! Tension takes a terrible toll on your life. Relaxation can make you feel better and be more pleasant to live with. The "Contour® Method of Relaxation" is an amazing new way to help you learn this vital skill.

REWARD YOURSELF—YOUR FAMILY

Discover the wonders of natural relaxation.

Get the free 12" LP album "The Contour® Method of Relaxation" It reveals many secrets of relaxation. You can get it free if you are over 21, just for trying the wonderful relaxation experience of the new Contour® Method.

Contour® comes in five different styles with fabric and colors to match every decor.

Make it a Christmas Gift FOR DAD!

Clip Coupon Mail Today

Contour Chair-Lounge Co., Dept. N-104
5200 Virginia Ave., St. Louis, Mo. 63111

☐ I am over 21. Please send name of nearest Contour® dealer, and RESERVE my FREE Contour® Method of Relaxation record album at his store.

☐ I would like more information about the genuine Contour® chair.

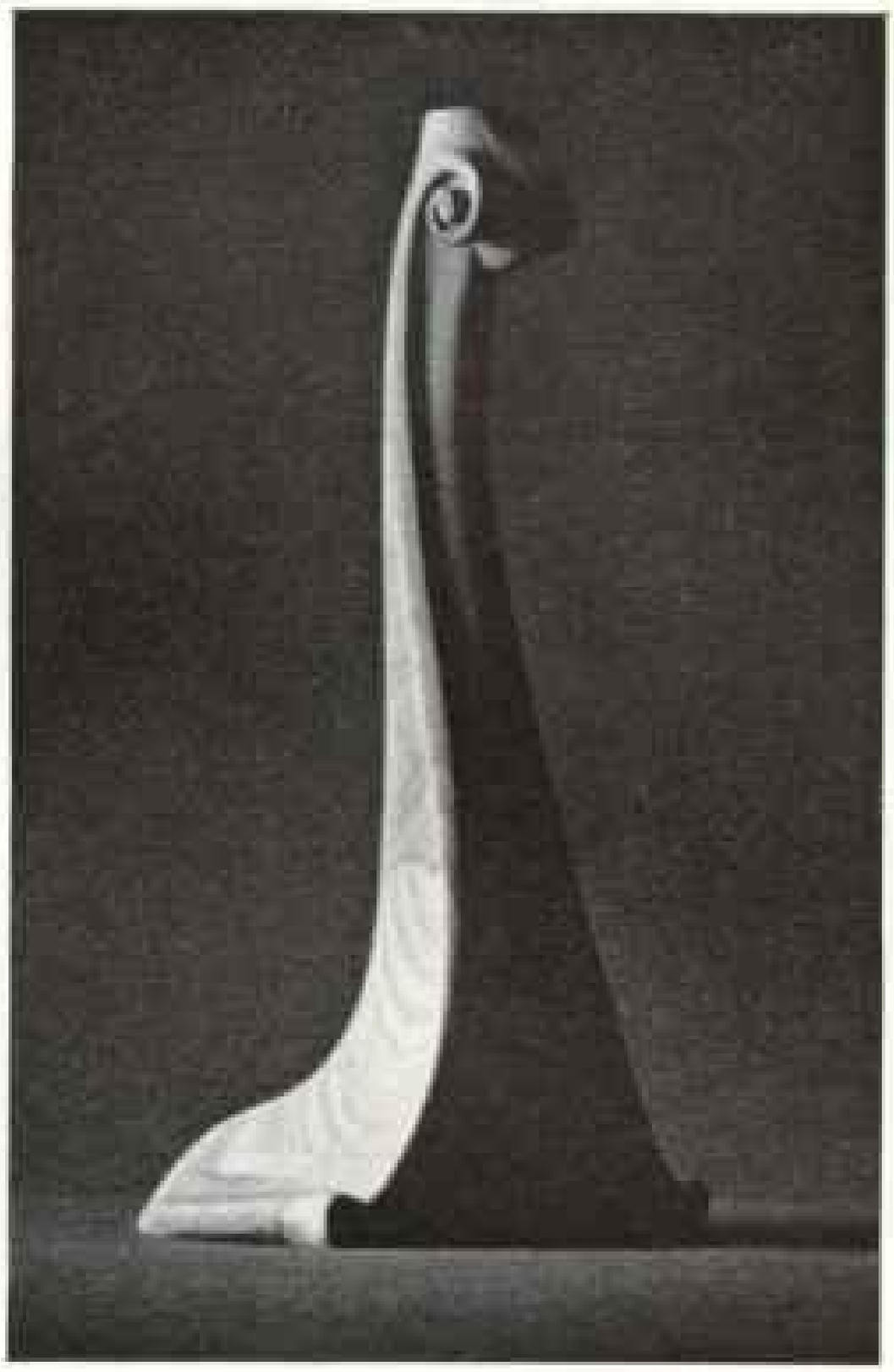
Name_____

Address_____

City_____ State_____ Zip_____

Offer and reservation void after December 31, 1964.

Valuable Coupon



Leg Art

To give lasting luster to a Baldwin Piano leg, craftsmen perform 16 separate operations, from initial stain coat to final polishing with fine wax. This kind of painstaking care in making the Baldwin beautiful to see as well as to hear and play helps explain why it is the exclusive choice of Arrau, Luboshutz and Nemenoff, Richter-Haaser and other great concert artists. When you buy a Baldwin you are choosing wisely. (Write Baldwin, Dept. NG 10-64, 1801 Gilbert Avenue, Cincinnati 2, Ohio, for Grand Piano brochure.)

Baldwin

Official Piano and Organ,
New York World's Fair
1964-1965.

Donald R. Yance
of Yance Refrigeration
(address on request)

Why Donald Yance uses a postage meter to mail 3 letters a day—

"I suppose some people might think I'm a nut. But in a small service business like this, you don't really have an office and it's easy to mislay stamps or lose them. The meter is mighty handy, even for a few letters a day. One reason I particularly like it—you know your postage goes only on your own mail."

Have you ever seen Pitney-Bowes little, low-cost DM postage meter, made for the small business? Just ask the nearest Pitney-Bowes office to show you one.

You don't have to lick and stick adhesive stamps or seal pre-stamped envelopes. You no longer need a locked stamp box—the meter protects your postage from loss, damage, misuse. The meter does its own accounting, shows postage used and on hand. Mailing is easier, faster, and neater.

The DM prints postage as you need it, for any class of mail. Right on the envelope, or on special gummed tape for parcel post. And with every meter stamp you can print your own small ad, if you want one.

The postoffice sets your meter for as much postage as you want to buy. You make fewer trips to the postoffice.

More than a third of DM users average less than $1 in postage a day—appreciate the meter for its conveniences. Powered models for larger mailers. Call any of 190 Pitney-Bowes offices. And ask about the new PB Addresser-Printers for machine addressing!

FREE: *Booklet, "So You Think Metered Mail Is Only For Big Business?," plus handy postal rate chart including new parcel post rates. Or literature on new Addresser-Printers.*

Pitney-Bowes
Originator of the
POSTAGE METER

PITNEY-BOWES, INC.
3648 Pacific Street, Stamford, Conn. 06904

Send ☐ *booklet & postal rate chart*
☐ *Addresser-Printer literature.*

Name _____

Address _____

City _____ *State* _____

Why didn't they jump like this in 1948?

Sports records seem to be made for one reason —to be broken over and over again.

Rigorous training, of course, largely accounts for the new records set by athletes. But there's another basic factor—good health and the strength and endurance that go with it.

Today's young athletes, and youngsters in general, have unequaled chances to develop their physical potentialities. Vaccines help protect them from most of the communicable diseases that once handicapped thousands of persons in some way.

The courses of many diseases—which are not preventable—have also been made milder and shorter with antibiotics and other modern drugs.

Equally important are advances in nutrition, including a more precise understanding of how vitamins and minerals influence sturdy, healthy growth. Much of the new knowledge of nutrition in relation to growth and disease resistance has come from pharmaceutical research, including that conducted by Parke-Davis.

Working with physicians, hospitals, and medical centers throughout the world, Parke-Davis is constantly seeking better medicines to help people enjoy longer and more active lives.

PARKE-DAVIS

BETTER MEDICINES FOR A BETTER WORLD

You can telephone all over the world

Today, you can reach 179 countries or areas of the world by telephone. It's the quick, convenient, personal way to keep in touch.

The cost is low. You can telephone almost anywhere in the world for $12, plus tax, for the first three minutes. The rate for the first overseas call—from New York to London in 1927—was $75.

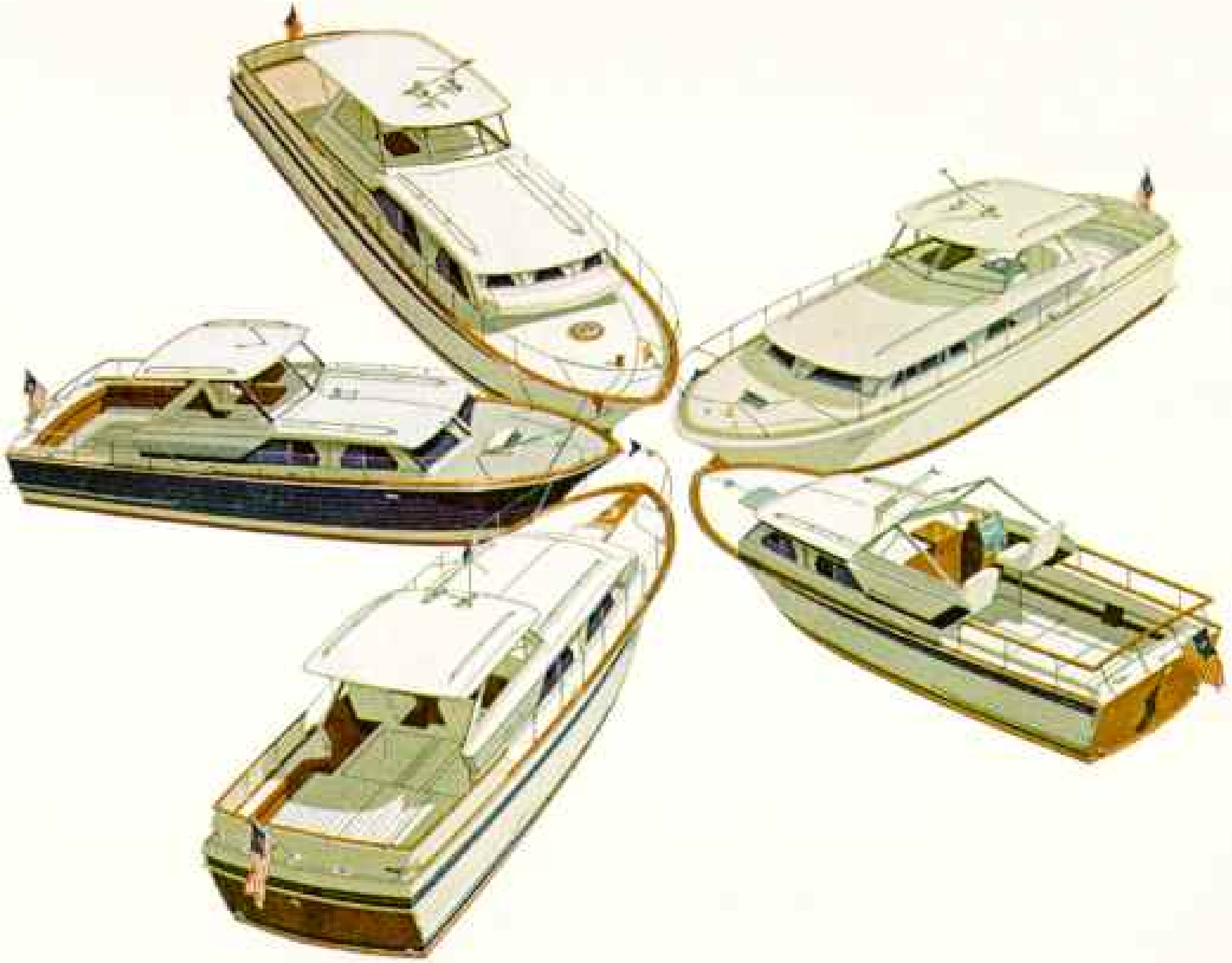
Whenever you want to keep in touch—telephone. It's the next best thing to being there.

BELL SYSTEM

American Telephone & Telegraph Co. and Associated Companies

It's "Fall Savings Time" again and Chris-Craft dealers are now offering better deals on *next year's* boats than at any other time! The brand-new, 1965 models are in now. Trade-in allowances are high, monthly terms are low, and many dealers offer free storage until spring. So stop in at your dealer's and see what's new. You can really save if you act *now!* Sport boats, cruisers, and yachts, from 16 to 65 feet make up the 1965 fleet. For free literature, write Chris-Craft, Pompano Beach, Florida. ◉ Chris-Craft

Chris-Craft's 1965 models cost less now than they will in 1965



Top left and clockwise: Roamer 48' Riviera (steel or aluminum); Commander Thirty-Eight (fiberglass); Cavalier 33' Futura (marine plywood); Chris-Craft 37' Constellation (solid Philippine mahogany); and Sea Skiff 35' Sea Hawk (lapstrake).