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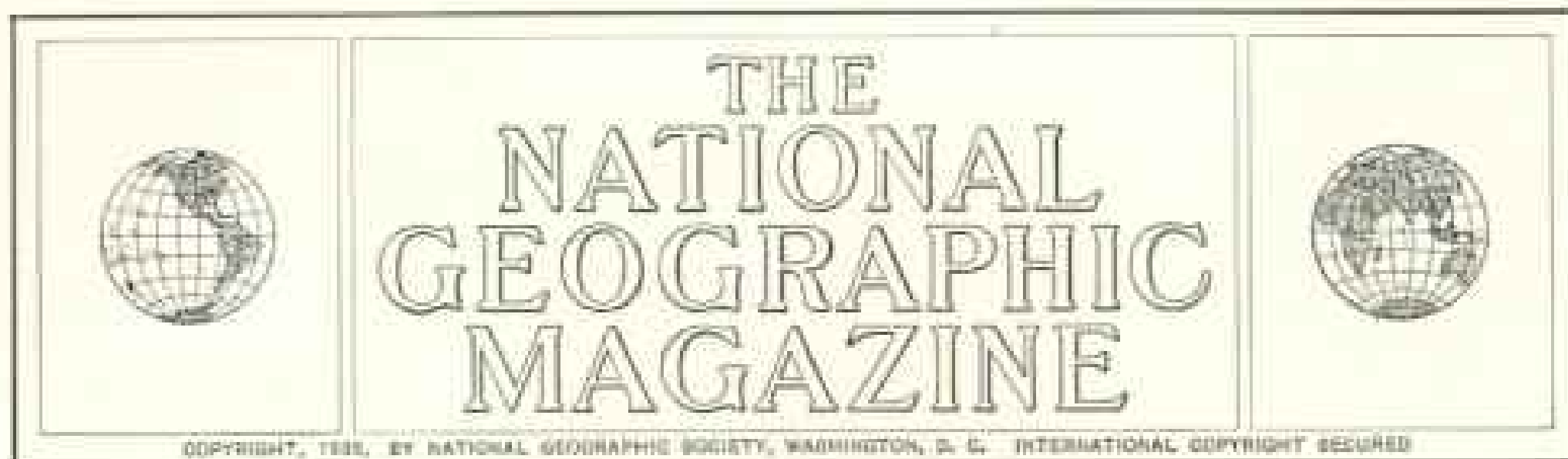
11 Natural Color Photographs

B. ANTHONY STEWART

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SOUTHWARD HO! IN THE "ALICE"

BY HENRY HOWARD

AUTHOR OF "THE YACHT ALICE"

AT the age of fifteen I had my first real sea adventure. The *Topsy*, 15-foot catboat, freshly painted and lying at anchor in the Charles River, Boston, represented months of hard work. I had bought her for \$75, my earnings and savings for two or three years. She had been dismantled, but the sails, boom, and gaff were saved.

I burned off the old paint, and sandpapered and repainted her with the assistance of several friends, whom I inveigled into the work by the method made famous by Tom Sawyer—letting them take turns in wielding the paintbrush as a privilege, while I gave friendly directions.

I repaired rotten places in the bottom by applying white lead and strips of canvas backed by thin sheets of lead. A new mast was made from a secondhand spar. Ballasted by stones picked up on the shore, the *Topsy* was at last ready for a voyage around Cape Cod, an adventure in those days for experienced yachtsmen having boats many times her size.

"SHE'LL SAIL ON A HEAVY DEW!"

Several boys who, a month before, had been keen to go with me had all faded out of the picture, but I was not discouraged. I felt it was now or never, my father having gone off to his brother's wedding without actually forbidding me to start.

So, taking an early train to Boston, I sought out a seamen's shipping office on Commercial Street. I told the manager I had very little money, but wanted a sailor to help me sail the *Topsy* around Cape Cod to Narragansett Pier, Rhode Island.

"How much does she draw?" he asked. "About 15 inches with the centerboard up," I replied.

He laughed and turned to the listening men. "She'll sail on a heavy dew! Does anyone want the job? How about you, Boone?"

Daniel Boone, a husky young Yankee of about 25, somewhat in need of a shave, stepped forward.

"How much will you give?"

"Five dollars," I replied.

"I'll go if you'll pay my fare back to Boston."

So it was settled and ten minutes later we left for the Charles.

FOR CHARTS, A SCHOOL GEOGRAPHY

At home I quickly ransacked the kitchen, getting two loaves of bread, eggs, butter, salt, sugar, and coffee, also a gallon jug of water. For cooking we had frying pan, coffeepot, an old-fashioned kerosene stove with a single flat wick, and a two-quart can of kerosene—together with plates, knives, forks, and spoons. Also, a couple of blankets.

The navigating "equipment" I brought along consisted only of an old pocket compass belonging to my father, and my school geography, which contained small maps of Rhode Island and Massachusetts, including Cape Cod. I had never seen a mariner's compass; neither did I know that government charts were available at nominal cost.

A little after noon, we hauled up the 15-pound grapnel, our only anchor, and, with a fresh head wind, beat about three miles down the river to the first two bridges, which opened promptly. Then I learned,



Photograph by Edwin L. Wirhend

BUMBOATS BOB AS VIRGIN ISLAND COIN DIVERS BELLOW AND BRAWL

Passengers are always greeted by shouting boys when the ship docks at Charlotte Amalie. The flash of tossed money is followed by shrill cries and churned water as a half dozen eager lads plunge after it. Presently one will emerge with the coin in upraised hand; then he will tuck the money into his mouth for safekeeping.

with dismay, that we would have to pass through eleven bridges before reaching Boston Harbor. Arriving at the first railroad bridge about 4 o'clock, we were kept waiting there until 11:30 that night, when all the railroad bridges were opened and remained open until 3 a. m.

The tide was now running in, which gave the right of way to a small fleet of coasting schooners. Our only chance was to haul through against the tide and between the schooners, with danger of being caught and crushed by them. For a tender we had a small fisherman's dory, or rowboat, but the tide was now running so swiftly that we were unable to tow the *Topsy* against it.

By tying together all our running rigging and anchor rope we got a line long enough to reach from one railroad draw to another, and thus hauled the boat by hand against the current. Boone turned out to be a first-class sailor and worked all night.

About 5, without a wink of sleep, we reached Boston Harbor. The tide turned in our favor, and, although there was hardly any wind, the sail was hoisted and we were at last on our way.

By 3 p. m. we had gone about 15 miles. We were at the entrance to Boston Harbor, abreast of Cohasset, only to realize that we had used up all our food and water!

Boone said he knew the way into Cohasset Harbor; so in we went. I bought five pounds of pilot bread and two cans of corned beef and filled our gallon jug with water.

It was now 5 o'clock and 34 hours had passed since I had had any sleep or a full meal. On my suggestion that we get a good night's rest, tied up to the wharf, Boone refused. "What do you expect me to do for \$5?" he asked petulantly. "If I stay with you we must start at once."

CHINESE NAVIGATED THAT WAY, TOO!

Hoisting the sail, we took a short cut south of Minots Ledge Light, laying our course for Race Point, Cape Cod. Boone said the course was southeast one-half east. My pocket compass had only a needle that pointed north. I figured that if I set southeast one-half east, as marked on the bottom of the compass, in line with the keel, as indicated by cracks in the cockpit floor, and



Photograph from Henry Howard

"ALICE" BOILS ALONG OFF THE FLORIDA KEYS IN A FRESH BREEZE

In this able little ketch Mr. and Mrs. Henry Howard, with their amateur crew of five and Ramon, a literal "Jack-of-all-trades," cruised from North Carolina in the track of the old wind-jammers to the Virgin and other West Indian islands. They explored many long-forgotten island lairs of the buccaneers. The Howards' "dream ship" is 52 feet overall and draws only four feet two inches of water, but a centerboard may be lowered when needed. Such shoal draft makes it possible to explore many shallow and reef-choked inlets which would be closed to a boat drawing more water. The skipper asserts his yacht is one of the most seaworthy of her size afloat, for she rides over and slides off big seas like a cork, with not nearly so much effort as a deep-draft keelboat. *Alice* might be called international, as her fittings are from many countries—her Diesel engine, reversible propeller, and kerosene-pressure galley stoves came from Sweden; her anchor chain winch and roller reefing boom from England; the sails are of Egyptian cotton, and the ship was built at Staten Island, New York.

then steered to keep the needle on the north and south line of the compass box, the boat would be on a southeast course.

We easily picked up the whistle on Race Point, Cape Cod, about daylight the next morning, in a thick fog.

I had never heard of this method being used until I read in the March, 1934, number of the *United States Naval Institute Proceedings* a description of this identical scheme as one which has long been used by Chinese navigators.

A RUN TO HALIFAX

Fog, head winds, and bad leaks made the cruise around Cape Cod a nightmare, but the *Topsy* finally arrived at Narragansett. From Boone I learned more seamanship in this, my first cruise, than I would in two years of ordinary sailing.

After experimenting with an old, leaky,

24-foot keel sloop, *Gracie*, I acquired my first good boat, the 30-footer *Elj*. In her I took many offshore cruises, including one from Marblehead to Halifax and return in 12 days. I was now able to navigate by sun and stars, and the run to Halifax was made mostly out of sight of land—at the time considered a feat for so small a boat.

In the autumn of 1913 I purchased a "Stamford one design schooner," and renamed her *Alice* for my wife (page 269). It was the first of two boats by that name which I have owned.

A change of business in 1920 caused my removal to Cleveland and the sale of the first *Alice*. While there I read Lafcadio Hearn's fascinating book *Two Years in the French West Indies*, with his vivid descriptions of the Tropics, of romantic islands set in blue seas, and of the customs of their carefree natives.



Drawn by Ralph E. McAleer

BY STRIKING BOLDLY OUT TO SEA, THE "ALICE" REACHED THE VIRGINS IN 11½ DAYS

To landlubbers, the *Alice's* course might seem like an unnecessary detour, but she was following the practice of sea captains in the days of sailing ships who went southeast before turning directly south, so as to be pushed along by the prevailing northwesterly winds north of latitude 30. Boats paralleling the coast and Greater Antilles may take as long as six weeks—much of it thrashing to windward against adverse currents—to put in at the American Virgin Islands (page 271). On her 3,600-mile cruise, the yacht was favored by good winds throughout. White arrows show the prevailing winds for the month of December. The black arrows indicate the course of the Gulf Stream. The dotted line is the route of the *Alice*.

In 1920 I met Commodore Ralph Middleton Munroe, of Coconut Grove, Florida, and learned from him that it was possible to design a light-draft centerboard boat that could navigate inland waterways between New York and Miami, and also be so seaworthy that she could cross the ocean.

A "DREAM SHIP" FOR TWO

Such a boat he had designed and built for an Englishman, who owned Cat Island, one of the Bahamas. Later she was used for winter fishing off Cape Hatteras, one of

the roughest and stormiest places in the world at that season.

A careful study of this boat, named *Carib*, as well as of several similar boats which Munroe had designed, convinced me that here at last was my dream ship, on which my wife and I could live most comfortably. With it we might sail to our hearts' content through the quiet inland waterways, or, when we wished, we could attempt more venturesome cruises and explorations in the strong winds and choppy waters of the West Indies.

That was 17 years ago. Three years later, after much planning and careful study, my ship was completed and launched in October, 1924.

Have my dreams come true? Today, with my boat 14 years old, I can honestly say that reality has gone far beyond my hopes.

The auxiliary centerboard ketch *Alice* is 52 feet overall, 44 feet water line, 13 feet 7 inches beam, 4 feet 2 inches draft with centerboard up and 8½ feet with the board down. She is powered with a 15-horsepower, single cylinder, semi-Diesel engine, which gives a speed of 5 to 6 nautical miles (6 to 7 statute miles) per hour under power alone (page 267).

Alice's water and oil tanks are of heavy copper, coated with tin on the inside. The fuel tank holds 300 gallons of Diesel engine oil, which gives us a cruising radius of 1,500 miles under power. One filling, at six cents a gallon, costs only \$18. This is generally as much as we use in a five months' season, as often we are under sail alone.

Our water tanks hold about 300 gallons, ample for crossing the ocean if we use sea water for cooking and washing. When using fresh water for washing and cooking this supply lasts about ten days.



Photograph by Henry Howard

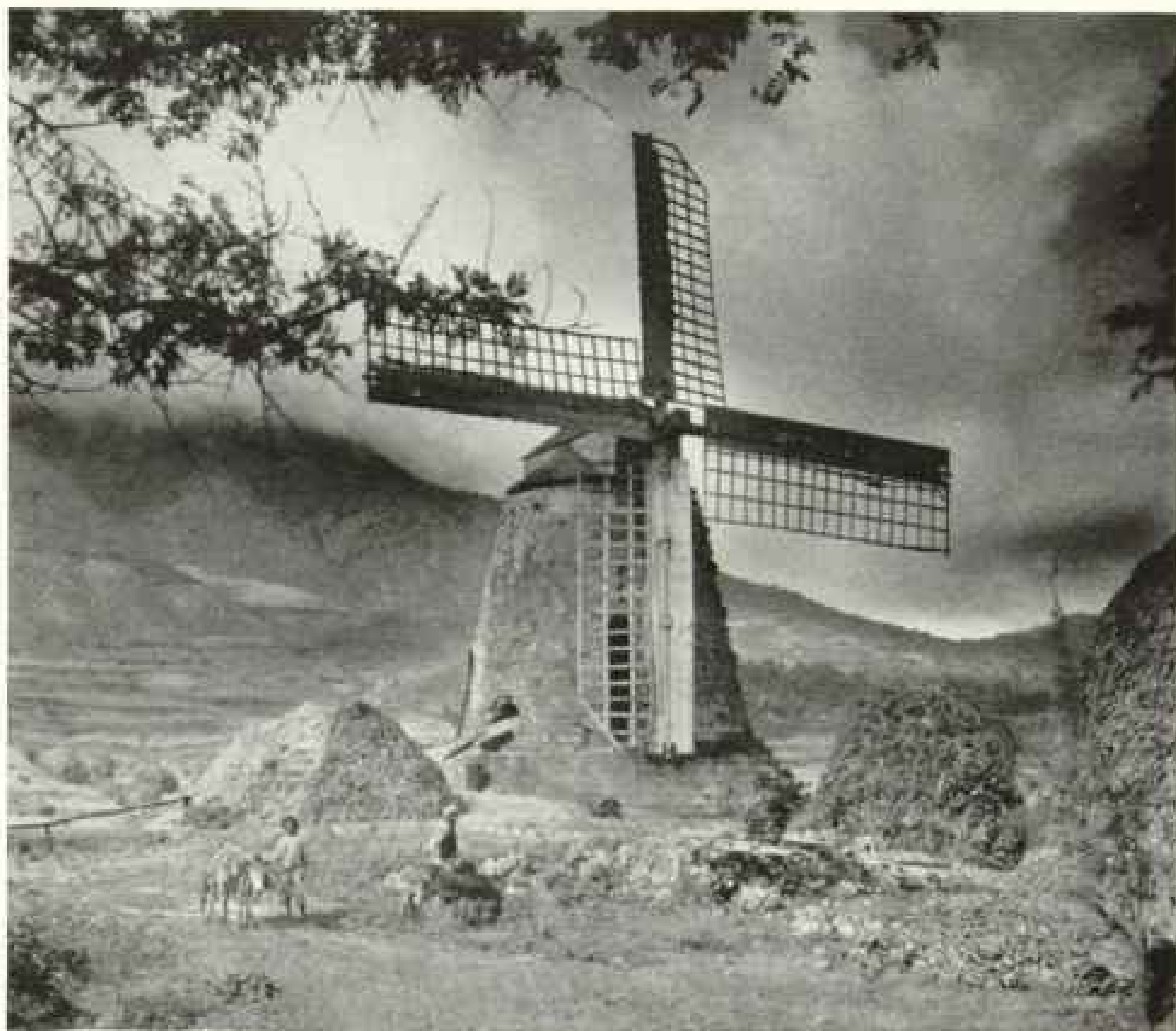
MRS. HOWARD TENDS TO HER KNITTING IN THE OWNER'S CABIN

The skipper's wife manages the culinary department as efficiently as in her Newport, Rhode Island, home. Ramon, the Spanish "paid hand," was taught cooking in her kitchen and learned the ways of the sea from the skipper. The wide double berth is designed so that the skipper may take a look around at night by sitting up and peering out the ports, at eye level. Between the beams overhead is set a compass so that, when "turned in," Mr. Howard can tell how the ship is headed. Beneath the bunk is a huge water tank and in the left lower corner shows part of the tile stove. Mrs. Howard is founder and president of the American Merchant Marine Library Association, which collects books for seamen, and is author of *The Seaman's Handbook for Shore Leave*.

Our ice chest holds enough ice for six days in the Tropics. Cooking and lighting are done by kerosene from a tank carrying 25 gallons—three to four weeks' supply. No gasoline or inflammable gas is allowed on board.

A "SHAKEDOWN" CRUISE

Finally, on October 21, 1924, we sailed away from Tottenville, Staten Island, on our first cruise, going first to Miami, then



© S. J. Hayward

TROPIC TRADE WINDS WHIRL OLD VANES TO CRUSH SUGAR CANE ON NEVIS

A cloud veil almost constantly hides the island's single mountain peak. Its resemblance to *nieve*, or snow, caused the discoverer, Columbus, to give the island its name.

to Nassau and the northern Bahamas, Key West, Habana, Cuba, and return to Miami.

After this "shakedown" jaunt, we felt that we were ready for wider horizons. So we brought out charts of the Lesser Antilles, and plotted a course that would take us on our longest offshore cruise—south from Morehead City, North Carolina, to St. Thomas, Virgin Islands, and thence down the Leeward Islands as far as Martinique and return (map, pages 274-5).

The *Alice* was provisioned for a month's cruise, although we expected to require only 15 days, at the most, for the longest open water hop. Mr. Ball, head of the Elizabeth City, N. C., shipyard, presented us with a fat wild goose for our Thanksgiving dinner and at noon we started the engine.

We were off for the West Indies!

Our crew of six, no two of whom had ever sailed together before, included two paid

men. One was the cook and steward, Ramon, a young Spaniard from near Coruña, blond, faithful, and always good-natured. He had been working at my house for a month under the direction of my wife. Starting with little or no knowledge of the culinary arts, Ramon had developed into a wonderfully good cook.

COOK WAS SEASICK BUT FAITHFUL

Passing out of Morehead City on December 3, we were at last fairly in the Gulf Stream. The water seemed as smooth as a mill pond, but a peculiar, uneasy swell soon made two members of our crew seasick.

One of these was our cook. But I will take my hat off to him for his grit. Not one day on the cruise did he fail to prepare three hot meals, as well as afternoon tea and toast, and serve them properly on the cabin table. Between courses he was either



Photograph by Sanford L. Chett

SEATED IN THE COMFORTABLE SALOON, SKIPPER IS READY FOR A SONG OR YARN

Many a yachtsman has sailed with Mr. and Mrs. Henry Howard in the *Alice* or come aboard for a gam in this cabin. The owner and his wife have cruised aboard their yacht for six months nearly every year since she was launched in 1924. Every convenience is provided in the little seagoing home, even to a small piano, pencil sharpener, and extensive nautical library (behind the curtain).

actively sick or lying flat on his back on the galley floor to recuperate.

We planned this cruise to get fair winds wherever we went. The trade winds are delightful (if a trifle strenuous) when they are with you, or abeam, but it is a man-killing job for a small yacht to try going against them.

So we followed the practice of sea captains in the days of sailing ships. By using prevailing westerly winds, north of latitude 30, we went as far east as necessary. Then we cut south to the trade winds, which come from a general easterly direction (map, page 268).

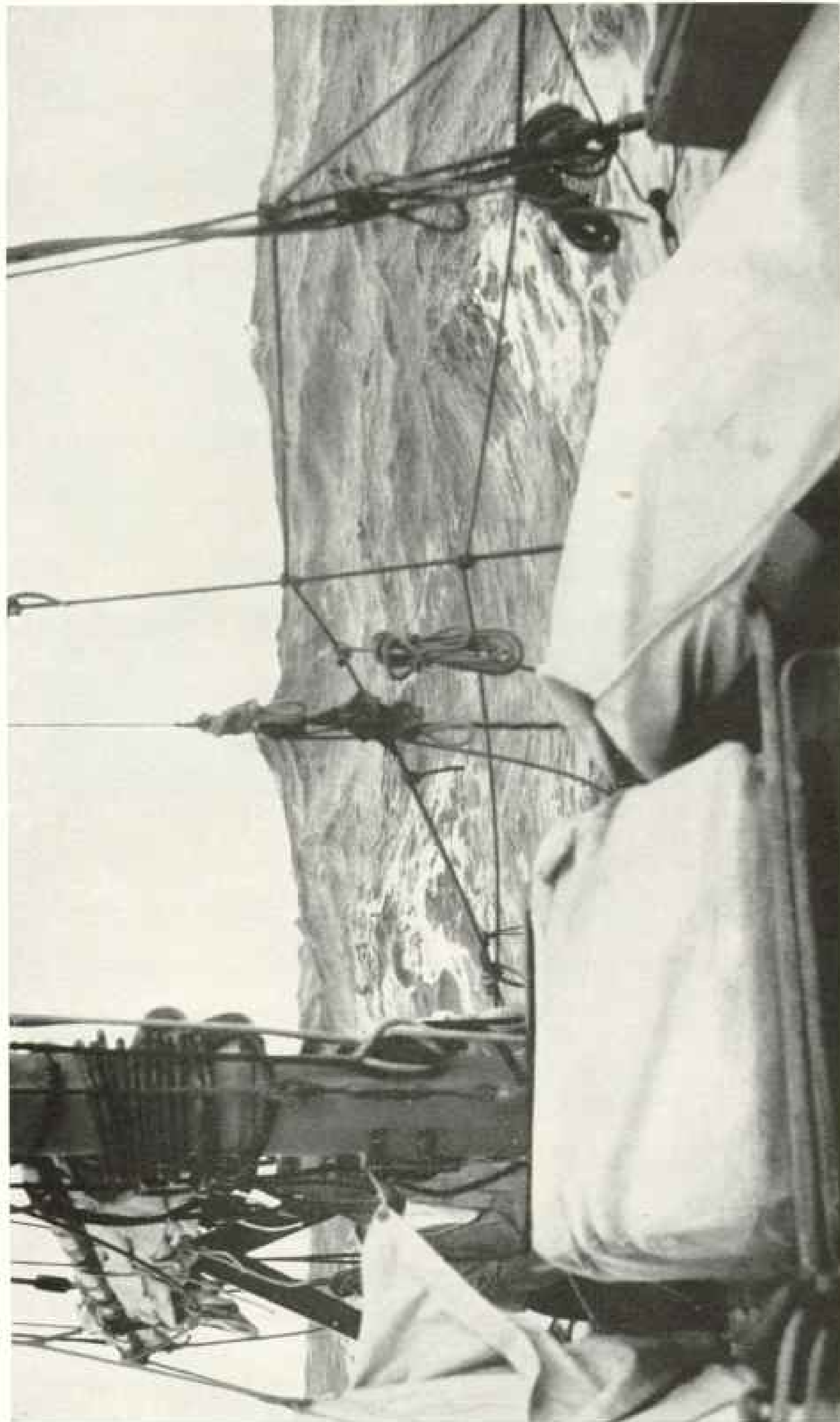
To landlubbers this may look like an unnecessary "detour," but in reality it enabled us to reach the island of St. Thomas in 11½ days. Boats following the coast and Greater Antilles may take as long as six weeks—

much of it thrashing to windward against adverse winds and currents.

December 11, eight days out, we saw signs of a heavy squall bearing down from the northeast. Sail was immediately shortened to a double-reefed mainsail, and the mizzen and jib were both furled. The squall struck with considerable force and, as night was coming on, we decided to take it comfortably under short sail.

AFTERNOON TEA IS SERVED, EVEN IN
ROUGH WEATHER

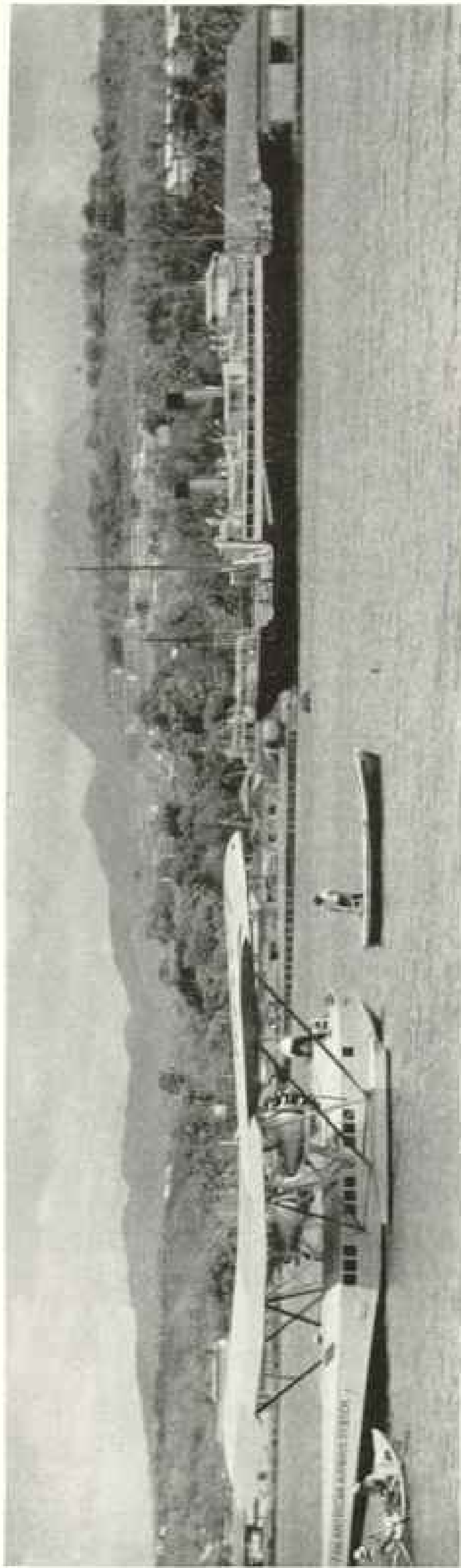
Just after the squall came up, with spin-drift blowing off the tops of the waves, we were startled to hear a bell ringing. What could it be? We were a thousand miles east of the Florida coast. Someone suggested it must be a bell buoy adrift. Then one of the crew put his ear to the deck.



Photograph by Vincent Gillain

SPRAY AND SPINDRIFT FROM MOUNTAINOUS WAVES WHIP THE HELMSMAN AS THE "ALICE" BUSHES ALONG IN THE TRADES

With double-reefed mainsail, and mizzen (left) and jib both furled, she battles an Atlantic gale. A double row of life lines has been rigged to minimize the danger of "man overboard"—an accident which would mean almost certain death because keeping a man in sight from a point as low as a small boat's deck is difficult. The canvas covers over the skylights in the foreground protect the glass from boarding seas. Slits are provided so that windows may be opened in fair weather without taking off the covers.



Photograph by Edwin L. Wisneed

ONCE INACCESSIBLE PORT-DE-FRANCE, MARTINIQUE, IS NOW ONLY TWO DAYS BY AIR CLIPPER FROM NEW YORK



Photograph by Ella Barnett

"MARY BORDEN DYING . . . COME AT ONCE," READS THE HELIOGRAPH MESSAGE RECEIVED FROM CABLELESS NEVIS

When police on the St. Kitts water front, at Basseterre, saw signals flashing on the distant cloud-capped island, they called an operator who caught the dots and dashes sent by a mirror reflecting the sun's rays, such as the one on the tripod in the foreground. Not for 24 hours could any small craft cross the narrow, stormy strait.



"It's Ramon, ringing in the saloon, to announce afternoon tea," he said.

A shout went up and in a moment all but the helmsman were filing below, where we found everything dry and cozy. It was hard to realize that the weather was so bad on deck.

The next morning we were well in the trade wind belt. To the sailor this means bright sunshine, with fleecy white clouds and occasional short showers. The water is so blue that it seems as if there must be bluing in it. High rollers, 15 to 20 feet from trough to crest, all covered with rushing whitecaps, hurry along. Wind sings in the rigging as the boat glides over them in graceful strides.

FROM OILSKINS TO BATHING SUITS

The weather was now so warm that we dispensed with oilskins and put on bathing suits. Our blankets had long since been folded away under the mattresses.

We had settled down to sea routine, divided into three watches so that we all got four hours on, and eight hours off, duty. This allowed plenty of time to sleep and read. The open ocean voyage, instead of being hard work and exhausting, was most enjoyable. There were no buoys or lights to watch for and no reefs to be avoided, as in coastwise navigation.

Food on an ocean trip is of first importance. The cruise was divided into periods

of one week, and we planned a menu with quantities required for six of us. In actual practice we did not follow exactly these weekly menus, but they gave a basis for determining the minimum food required.

The food list, made up largely from these menus, was based on the absence of ice, as we wished to be free to visit ports where ice was not obtainable. We decided we would not even start with ice, so that our refrigerator could be stocked with potatoes, onions, carrots, etc.

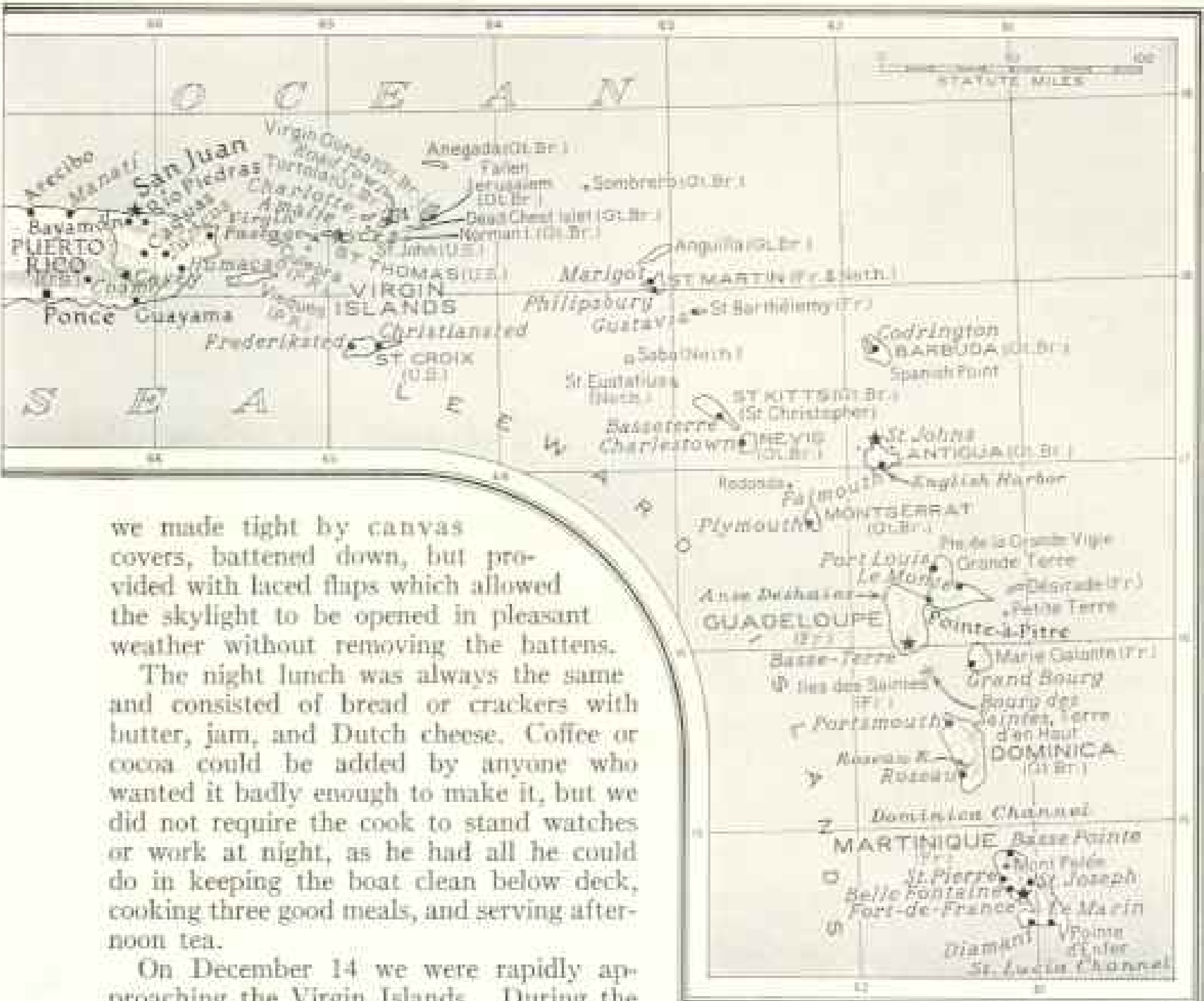
For minimum requirements per man per day, we provided: water, 1 gallon; bacon, $\frac{1}{4}$ pound; eggs, 2; butter, $\frac{1}{4}$ pound; sugar, granulated, $\frac{1}{4}$ pound; sugar, 6 lumps; coffee, $\frac{3}{8}$ pound; sea biscuit, $\frac{1}{2}$ pound; evaporated milk, $\frac{3}{4}$ tall can.

Eggs were preserved by first coating them with lard and then packing them in salt in a wooden box or a glass or earthenware jar.

The galley stove is of the kerosene pressure type. The two burners are hung in a frame which stays level no matter how much the boat is heeling over; thus soups and stews can be made even in rough weather. The cabin table is strongly built and bolted to the floor. A gridiron "rack" two inches high is fastened across the top, holding all dishes in place.

The deck of the *Alice* is covered with painted canvas, the best covering to resist the hot sun of the Tropics. The skylights

AFTER the long open-sea jump from North Carolina, the *Alice* left Charlotte Amalie, capital of the U. S. Virgin Islands, and threaded her way through some of the most historic and romantic bits of land of the West Indies. Many of these have been little visited since pirates ranged the Spanish Main, or British, French, and Dutch colonial fleets fought for the control of their sugar, coffee, and indigo trade. Often the members of the *Alice's* crew crossed the trail of buried treasure, without, however, finding any! In half-forgotten harbors they came upon ruined shipyards and the sun-bleached wrecks of sailing craft whose very names are lost. Anchoring in sheltered coves, they explored jungle-choked hilltops and hoary fortifications where buccaniers and a New World black king once held sway.



Drawn by Newman Dumastad

we made tight by canvas covers, battened down, but provided with laced flaps which allowed the skylight to be opened in pleasant weather without removing the battens.

The night lunch was always the same and consisted of bread or crackers with butter, jam, and Dutch cheese. Coffee or cocoa could be added by anyone who wanted it badly enough to make it, but we did not require the cook to stand watches or work at night, as he had all he could do in keeping the boat clean below deck, cooking three good meals, and serving afternoon tea.

On December 14 we were rapidly approaching the Virgin Islands. During the morning and early afternoon, we had taken eight sights, and figured that Virgin Gorda was due south.

The last afternoon sight was taken about three. As soon as we had plotted the position on the chart, we called to the deck: "Look straight ahead, not near the horizon, but up in the sky."

A shout came down that land was in sight. Previously, they had been looking close to the water, but high land can nearly always be seen first at some distance above the horizon, where the air is clearer.

After getting through Virgin Passage we still had about twelve miles to go to windward. At dawn we were abreast the entrance to the beautiful harbor of Charlotte

Amalie (formerly St. Thomas), although still some distance offshore to avoid the outlying rocks and small islands.

DANISH BUILDINGS AMID COCONUT GROVES

Under the lee of the island the winds were very light early in the morning and I shall never forget the limpid beauty of the scene as we sailed slowly in. The old Danish buildings on shore; the green mountains rising almost from the water's edge, so that much of the town is built on a hillside; the coconut and mahogany trees; the venerable Danish fort—these things are alluring at any time, but doubly so after 11½ days at sea (pages 266, 278, 279).



Photograph by Frank C. Durkee

WHEN THE MAIL BOAT BRINGS ICE THE SOFT-DRINK BUSINESS BOOMS ON TORTOLA

Once a week the government tender carries ice packed in sawdust from Charlotte Amalie, American Virgin Islands, to Road Town, chief city of the British Virgins. Shaved from the block and sweetened with colored fruit juices, it brings many a penny to the black cashbox on the table. The crew of the *Alice* found it cheaper in the West Indies to buy ice and melt it than to purchase distilled water. To be clear, the ice must be made from distilled water and, besides, there is no charge or deposit required for bottles.

Here, as in all the islands, one constantly hears stories of buried treasure. One day I asked an old lady if she had ever had any personal experience with buried treasure.

"LOOK FOR TWO SYCAMORE TREES"

"One afternoon in 1876," she related, "when I was a girl of fifteen and living with my aunt in Frederiksted, on the island of St. Croix, a schooner with a sick sailor on board came into the harbor.

"As soon as he had been carried to the hospital, he asked if there was anyone on the island named Wallace. On learning that such a person lived in Frederiksted, he asked that he be sent for.

"Mr. Wallace, a member of the firm of Hugh and Walker, hurried at once to the sick sailor. After satisfying himself that Mr. Wallace's father and grandfather Wallace had lived in Frederiksted, the stranger put his hand under the pillow and drew out

a little tin box, tightly soldered. This had been given to the sailor at the deathbed of a chum in an American mining camp. The latter made him promise to deliver it to his old friend Wallace, in Frederiksted, or, if he were dead, to his son or grandson.

"On opening the box Mr. Wallace found it contained a parchment map of the western part of St. Croix—an estate known as 'Stony Ground.'

"Here he was told to look for two sycamore trees. When he found them he was to stand halfway between them, and take ten paces toward the sea. Digging there he would find treasure, and it would be his because his grandfather was one of the sailors who helped bury it in the time of the pirates.

"When Mr. Wallace went to the place shown on the map he found the sycamore trees without trouble and also the treasure chest a short distance underground. But



Photograph by Henry Howard

"ALICE" PAUSES WHILE THE CREW SEARCH FOR PIRATE TREASURE

At the western end of Norman Island, one of the British Virgins, the ketch anchored near a cave called the "Black Hole." Native fishermen showed them a treasure niche in the cave which had been opened by mysterious visitors several years before (page 279). The strangers accidentally spilled six or seven doubloons into the water, and the gold pieces were recovered by the fishermen from the bottom. Tool marks left at the time are still plainly visible. This anchorage was made famous in Frederick A. Fenger's story, *The Golden Parrot*.

It was too heavy for him to handle alone. Covering it up, he returned to Frederiksted. Here he got an old former slave, named Bong Pater, to help him.

BONG PATER AIDS STEALTHY SEARCH

"They first obtained a small two-wheeled cart. Bong Pater wrapped the horses' feet and also the wheels of the cart in bagging, so that there would be no noise. They got a pickax, crowbar, and shovel, and left Mr. Wallace's house at midnight.

"Digging up the treasure, they found it was all in Spanish doubloons (gold pieces worth today about \$27 each). It filled the cart almost to the top. They were not able to take the chest out because two men could not lift it. The gold was carried back to Mr. Wallace's house and hidden under the mattresses of the beds.

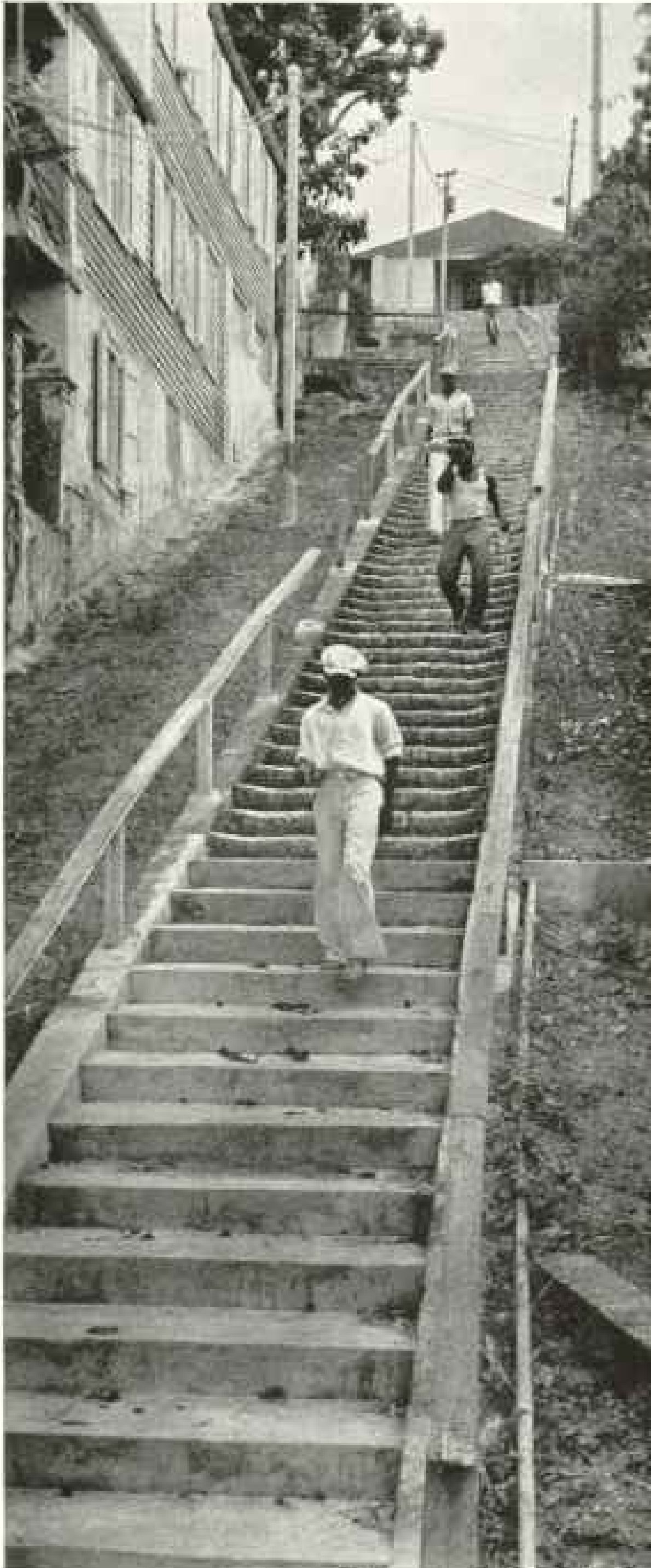
"All would have been well, except that a neighbor named Gordon had been watch-

ing through a closed blind when Bong Pater was muffling the wheels and horses' feet. He continued to watch until Mr. Wallace and Bong Pater left at midnight; then Mr. Gordon, following at a safe distance behind, saw the treasure removed and later carried into Mr. Wallace's house.

"Mr. Gordon went to the police and reported what he had seen. Wallace was promptly taken to jail and locked up. Then two judges and the policeman started for Mr. Wallace's house.

"In the meantime my aunt, who lived next door to the Wallaces, hearing what Gordon had done, ran over and told Mrs. Wallace that the police were coming for the treasure. Mrs. Wallace fainted and my aunt filled her skirt with all the doubloons she could carry, went back to her house, dumped them on a bed, and covered them with a blanket.

"She returned to Mrs. Wallace's house,



Photograph by Edwin L. Wisard

ESCALATORS WOULD BE WELCOME HERE

Roads turn into staircases in many parts of Charlotte Amalie, St. Thomas, so steep are the grades. Built on three hills dubbed by old-time sailors "foretop," "maintop," and "mizzen-top," the city has one of the best harbors in the West Indies.

and by that time the police had taken all the money. It was a vast lot. The little saved came to several thousand dollars. The government confiscated every bit of it and kept Mr. Wallace in jail on bread and water for 48 hours, then let him go.

"Mr. Wallace got none of the money, not even the skirtful that was hidden by my aunt. A neighbor came around and told him he would keep it safe for him. He took it away and loaned it to planters, who never repaid Mr. Wallace."

BLUEBEARD AND BLACKBEARD CASTLES

Charlotte Amalie has a fascinating historical and legendary background. Bluebeard's Castle and Blackbeard's Castle are preserved in almost their original shape (page 300). The public library was formerly the club and drinking place of prominent pirates. Here they would sit on the balcony and watch their lady friends parading up and down the street, clothed in the most expensive silks and satins, many sporting jewels of great value.

The Government winked at the source of these riches. Buccaneers for decades lived relatively honest lives ashore in this old "free port," a safe retreat where they could sell their booty and spend their money.

The best way to explore St. Thomas, as in most of the islands, is on horseback. As a rule, automobile roads are limited and poor.

Charlotte Amalie has boat supplies of all kinds. At the oil docks we were treated with the utmost courtesy, although the quantity we bought was so small that the sellers were unable to detect any difference in the depth of their gauge tank. We filled our tanks with rain water at the same docks.

It would take three or four months to study thoroughly these American and British Virgin Islands. We were able only to touch the high spots. We did, however,

go into Hurricane Hole, which seemed as if it were almost in the center of St. John Island because it is surrounded by high hills on every side.

This, I am sure, would be a snug anchorage even in a hurricane. We went in with half a gale blowing, and while we could see the scud rushing by overhead, there was not wind enough at our anchorage to make us swing to our cable.

On Norman Island, one of the British Virgins, we visited a cove made famous by Frederick A. Fenger in *The Cruise of the Diablosse* and in his delightful pirate story *The Golden Parrot* (page 277). We saw no one while we were ashore.

A CACHE OF DOUBLOONS

Near the remains of a little hut, described by Fenger, we spread a picnic lunch. There was no temptation to penetrate the interior of the island because of the vicious cactus in the scrub back of the beach.

Not until I returned to the Virgin Islands, three years later, did I hear the story of pirates' treasure on Norman Island. The incidents, I understand, happened 30 or 40 years ago.

One morning some fishermen sailed out of Road Town toward Norman Island. A strange schooner anchored in the cove aroused their curiosity. As they approached her, the people on the schooner asked to be directed to a cave named the "Black Hole."

The fishermen returned to Road Town, talked the matter over, and decided the question was suspicious.



Photograph by Henry Howard

"MARY OF THE TOILETS"—WHOSE ST. CROIX FOREBARS LED SLAVE REVOLTS

Mary Prince, a maid at the Grand Hotel, Charlotte Amalie, Virgin Islands, put on her best dress and calico cap for her picture. She told the author her great-great-uncle was General Borda, a slave who led the successful insurrections in 1848. Her third cousin was leader of the revolt of 1878, which destroyed St. Croix, where the United States Government has recently fostered the revival of the rum industry.

How would any strangers know about the Black Hole? Perhaps treasure had been concealed there, and the strangers had a map. They were afraid to investigate in the night, but as soon as daylight came they lost no time.

Reaching the cove, they found the schooner had gone. Sailing around the point, they sculled into the Black Hole and at first noticed nothing unusual. Then one of the men looked over the side and, through the crystal-clear water, saw sev-

eral gold pieces glittering on the bottom.

In a few minutes six or seven doubloons were brought to the surface. A thorough search inside the cave disclosed no more treasure, but it did reveal a hole in the rock, walled up so that it had previously escaped notice.

The men of the schooner evidently had a chart locating it, and removed the treasure, probably doubloons, in small sacks. One of these, breaking, spilled some of the gold coins, which went to the bottom and were overlooked. Nothing has since been heard of the schooner, or the men on her.

I have seen the cave, and examined the treasure niche. The tool marks left at the time were still plainly visible. The cache was located about 12 to 15 feet above high watermark, safe from the most severe hurricane.

In the afternoon, under sail and power, we worked to windward and passed close to a small island marked, on the charts, Dead Chest. This speck of land in a cobalt sea is said to have been the inspiration for Stevenson's "Fifteen men on The Dead Man's Chest—Yo-ho-ho and a bottle of rum."

DEAD CHEST, OF THE 15 MEN

When I read *Treasure Island* as a boy, I was rather bewildered by the thought of 15 men sitting on a dead man's chest, unless they took turns, and why should they do it, anyway? It was not until I learned that "Dead Chest," or "Dead Man's Chest," was the name of a barren island that the ditty became intelligible. An established penalty under "pirate law" was to maroon disobedient sailors on some uninhabited island.

Fallen Jerusalem is another extraordinary islet. Its huge, rectangular boulders from a few miles away appear like a large city, with tall business blocks looming above the horizon. Many of these blocks are as large as a good-sized house, and in one I inspected at close quarters there was a cave big enough for people to live in.

The next morning, as it grew light, we saw high land on our weather bow. I feared that, in spite of our liberal allowance for the current, we had swept to leeward of Saba, our next stop. Half an hour later, however, we saw this lofty Netherlands island on our lee bow. It had been hidden by a rain squall and low-lying clouds.

With sheets started and all sails set we bore away for the island, thinking we

might get there in time to anchor before breakfast, but soon learned that distances are deceptive in the West Indies because the air is so clear and the land often so high. Following the advice of a native of Saba we had met at Charlotte Amalie, we did not anchor but waited for the port authorities to come aboard.

Half an hour later these officials put out in a surfboat and, under their direction, we dropped our anchor in exactly the right spot. We went ashore in their boat.

Visitors, we were cautioned, should not attempt to use their own dinghies, because the landing is on rough boulders and pebbles, which would quickly smash an ordinary yacht tender.

BOTTOM, SABA, HIGH IN A CRATER

Saba consists of a single long-extinct volcano, with a town called "Bottom" in the crater. In spite of its name, Bottom is located more than 900 feet above sea level, and is reached by stone steps and a steep path through a gap in the side of the volcano (pages 294, 295).

We were hospitably entertained by the Governor. I made inquiries about Charlie Johnson, an excellent sailor who had served with me on my first *Alice* for four years. We soon located him, found that he was married and had a family, and was earning his living as a carpenter.

While the people of Saba are under the Netherlands Government, they speak English. Dutch is spoken only by Government officials who have come out from the Netherlands, or by their direct descendants.

Our guidebook of the West Indies told us that the people of Saba build fairly good-sized sloops or schooners in the town of Bottom and then lower them down over the sides of the cliffs into the sea. Where this story originated I do not know; I could not verify it.

The vessels built there from time to time are made on the beach at the foot of the cliffs and launched in the ordinary manner. The only boats now constructed in the town of Bottom are rowboats, which can be carried down on the heads and shoulders of the natives.

Our next port was Charlestown, on the British island of Nevis (page 273). This is another one-sided harbor, but you get used to such in the West Indies.

An English yachtsman who once lived at Nevis and had a yacht anchored there laid

COLORFUL PATHS IN MARTINIQUE AND GUADELOUPE



© National Geographic Society

Finlay Photograph by Edwin L. Wisberd

LIFE MOVES LEISURELY, AS DOES TRAFFIC, IN THE FRENCH WEST INDIES

Oxen and donkeys still bear burdens too heavy for human heads, though automobiles are used extensively. A barefoot woman leads her donkey, laden with sugar-cane leaves, toward Basse-Terre, Guadeloupe. Tropic plants thrive in the island's rich volcanic soil, almost swallowing up the highway. Gnarled and twisted, a venerable flamboyant tree arches its branches over the road.



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"HOW NEATLY YOU WEAR YOUR MADRAS, MY DEAR!"

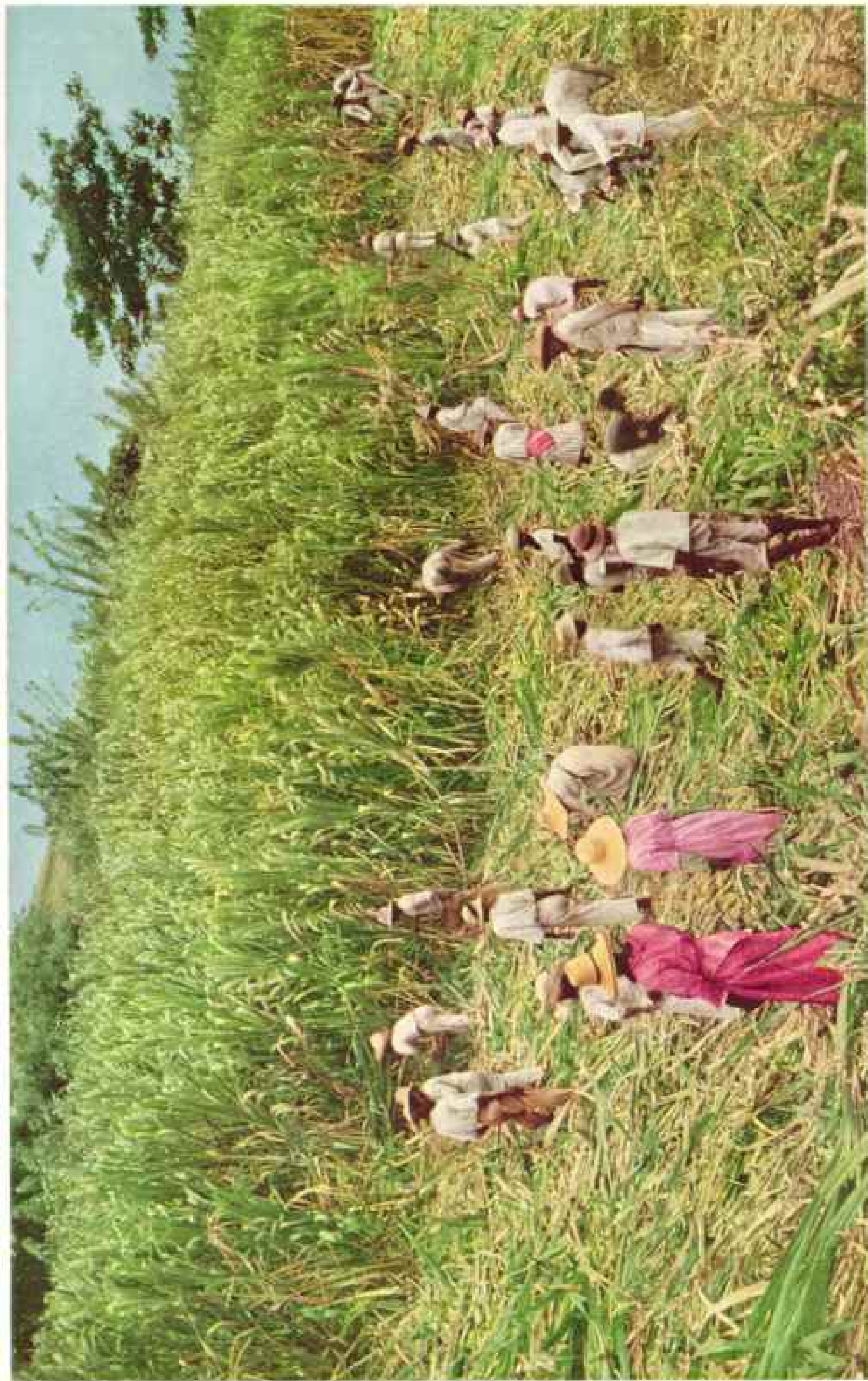
So might the modern girl of Guadeloupe greet her old-fashioned neighbor. The peak of the large folded kerchief points upward at a rakish angle. She carries the train of her skirt under her arm (Plate VI).



Finlay Photographs by Edwin L. Wishead

"MY NEEDLE," WHERE WOMEN FIND KNICKKNACKS AND GOSSIP

Sunshine penetrates the narrow street, lined with curiosity shops, for only a short period each day when "Old Sol" passes overhead. Thick walls help keep these Port-de-France houses reasonably cool.



© National Geographic Society

Friday Photograph by Edwin L. Wisberd

OLD MEN, YOUNG MEN, WOMEN, AND CHILDREN ALL BEND THEIR BACKS DURING SUGAR-CANE HARVEST

Workers with machetes chop down the stalks while women and children in broad-brimmed hats strip off the coarse leaves, which contain little juice. Donkeys and oxen carry the cane to a railroad siding where it is hauled to a large crushing mill and sugar refinery. Hacked-off leaves become cattle fodder or thatch for outbuildings on the plantation. Martinique produces about 50,000 tons of sugar a year.



LARGE ESTATES OVERLOOK THE CITY AND BAY OF FORT-DE-FRANCE, MARTINIQUE

Under withering fire from French soldiers at Fort Louis (center) in 1794, British Captain Faulknor and his crew ran their ship aground, rowed to shore in small boats, and took the fort. Later, the French regained the entire island; Britons took possession again in 1809, but surrendered it to the former five years later.



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Finlay Photographs by Edwin L. Wisner

A HANDMADE CANE CRUSHER EXTRACTS JUICE FOR RUM

Water flows along the overhead trough, drops into pockets on the wheel, and turns the creaking Martinique mill. Juice is distilled to spirits in the low-roofed building beyond.

COLORFUL PATHS IN MARTINIQUE AND GUADELOUPE



WEST INDIAN BUILDINGS ARE AS VARIED AS THE PEOPLE

A house of stone with two or three balconies may be sandwiched between a wide one of brick and a narrow one of wood. Windows in Basse-Terre, Guadeloupe, usually have two sets of shutters—inside ones for shades, and outside ones to keep out wind or rain. Heavy wooden doors discourage petty thieves and prowlers.



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Finlay Photographs by Edwin L. Wisnerd

GUADELOUPENS COME TO BARTER, BARGAIN, BUY, AND SELL

Green coconuts clustered in the foreground fetch a ready price, for their milk is preferred to that of riper nuts. Bread baskets display fantastic loaves, while behind are sacks of charcoal for cooking.



© National Geographic Society

AN ALPINE CHALET? NOY WITH TROPIC FLOWERS

To keep cool, Guadeloupiens follow the sun with their shutters, closing them on the sunny side and opening them on the shady side. French merchants and professional men live in this district in the hills near Basse-Terre.



Folksy Photographs by Edwin L. Wisberd.

RICH OLD COSTUMES ARE STILL THE FASHION

Nowhere in the West Indies is native dress more exotic than in Martinique. Snug turbans, fragile frocks with long trains, and loose slippers complete the outfits (Plate II). Love of jewelry finds expression in huge gold or silver earrings.



© National Geographic Society

FISHERMEN AT BELLE FONTAINE DESERT THEIR BOATS ON SUNNY, SULTRY AFTERNOONS AND HANG THEIR NETS ON POLES TO DRY

Finlay Photograph by Edwin L. Whittred

At dawn craft by the score head for the open sea from this and other tiny villages which dot the western coast of Martinique. Fisherfolk consume most of the catch, for the warm climate and lack of refrigeration prevent storage of shipment. At the end of the pier rests a square-sailed "freighter" half full of stones. The coastal highway between Fort-de-France and St. Pierre hugs the waterline at the foot of the hill.



IT TOOK A FRENCH SQUADRON TO MAKE H. M. S. "DIAMOND ROCK" STRIKE "HER" COLORS

This bit of rock sticking out of the blue Caribbean near Diamant, Martinique, was manned by a British crew in 1805. "Like mice hauling a little sausage," the tars hoisted cannon "aboard" and for 17 months blazed away at French vessels sailing to and from Fort Royal, now Fort-de-France. Not until ammunition was exhausted did the little band surrender. The stronghold was listed as a naval ship by the British Admiralty.



© National Geographic Society

Finlay Photographs by Edwin L. Wolfford

NETS TO BE MENDED LOOK LIKE TIERS OF THEATRICAL GAUZE CURTAINS

To build a boat, the Martinique fisherman hollows out a tree trunk and props it above ground by sliding stones under the ends. Beneath the amidship section of the hull he builds a fire; heat expands the green wood and bulges out the sides so that seats, or thwarts, may be inserted.

her up during the hurricane season in the nearest storm-proof harbor—a little land-locked body of water called Oyster Pond, on the near-by island of St. Martin (301-2).

WHERE LORD NELSON WOED AND WED

At Nevis Lord Nelson met and married Mrs. Nisbet (page 311). The entry and signatures in the register of the English Church are shown to every visitor. Here, too, at Charlestown, Alexander Hamilton was born (page 299).

On this island we saw an old-fashioned sugar mill, driven by a windmill on the top of a hill, where it caught the full force of the trade winds (page 270). Cane juice is boiled down and sold as syrup and not made into sugar. The boiling is done in small iron pots, fired by wood.

Plymouth, on Montserrat, has another one-sided harbor, an impossible place in the hurricane season. But both this island and Nevis are delightful places in the winter.

We spent an extra day here, because the following morning there was a gale blowing. A double-reefed mainsail and a storm jib afforded more sail than we wanted, and, after trying to beat along a few miles, we decided it would be pleasanter to return and wait until the following day.

While the trade winds in these islands blow day after day from the same general direction, the strength of the wind varies greatly. After a stormy day there is apt to be a lull, with two or three days of reasonably moderate wind. Such was the case at Montserrat.

The next morning we were under way at daylight, with all sails set, and had a delightful run over to the French island of Guadeloupe.

After leaving Montserrat, the first good harbor is Anse Deshaies. This haven is well protected from all winds except westerly and is free from undertow, a very unusual thing. There is a wharf at the head of the harbor and a small village where limited supplies can be purchased. It showed evidence of damage from the September hurricane of 1928. Coconut trees had no tops and many of the houses were still roofless.

BIG BLOW IN "GUADELOUPE CALM"

The coast pilot speaks of the "Guadeloupe Calm," which sometimes extends a hundred miles to the westward of Guadeloupe, and lasts for days. This is caused

by the high mountains which deflect the trade winds.

On the return trip I have seldom seen it blow harder anywhere than it did in the place where we were told to expect the "calm." With the engine going and nothing set but a double-reef mizzen sail, the puffs would put our lee rail under, and at one time we were afraid the sail would be blown away. The whole of Guadeloupe received severe injury in the 1928 hurricane.

Basse-Terre, the capital, near the southern end of the island, is a charming old town, built back of a hoary stone fortress between two beautiful streams (Color Plates I, II, V, and VI). Fountains in the principal squares are surrounded by waving cabbage palms.

To make a reasonably thorough cruise of the harbors of Guadeloupe would take at least a month. The island is well charted, with special maps of many of the harbors.

Pointe-à-Pitre, the principal city of Guadeloupe, at the head of a deep bay, has a well-protected harbor, a busy market place, many ox teams in its streets, and peasant women wearing gay costumes. Indeed, it belongs more to the beginning of the nineteenth century than to today.

About five miles south of Guadeloupe lie Iles des Saintes, a scattered group of historic small islands which enclose an excellent harbor (page 312).

In the days of Admiral de Grasse this was an important stronghold of the French in the West Indies, and even today it is used for maneuvers by the French Navy. The harbor is commanded by two forts, one of which is large and well preserved, with the guns still in place.

Here, in 1782, Admiral de Grasse battled the British under Admiral Rodney. This engagement, fought in the channel of Iles des Saintes, was won by Rodney, and changed the history of the West Indies.

The islands are rarely visited by Americans, so we decided to go in there. Landing, we climbed a hill to the top of one of the old fortifications overlooking a beautiful expanse of water. As there are two entrances, this spot was an ideal anchorage for old-fashioned warships, because vessels could sail into the harbor and then sail out again with the same wind.

The little village of Bourg des Saintes rises from the harbor of Terre d'en Haut, most easterly of the group. There is a wharf, and a small steamer runs over daily



Photograph by Edwin L. Wisbeed

EMPERESS JOSEPHINE'S STATUE "HOLDS COURT" AMID ROYAL PALMS

Napoleon's first wife, the daughter of a French lieutenant of artillery, was born in Martinique. The park which honors her in Fort-de-France is a popular evening rendezvous for many people who come to sit on the benches and watch the beaux and belles of the island capital stroll by. The new Colonial Hospital, on the hill in the background, overlooks the city and harbor.

from Pointe-à-Pitre, for whose residents the village is a summer resort. The inhabitants are quaint French peasants; the chief industry is fishing, and the fishing is good.

AN ISLAND OF WILD BEAUTY

Dominica is such an interesting British island that it is a pity the road system is so limited. We wanted to go to the windward side of the island to visit the Carib settlement, but found no carriage road available. One goes on horseback—two days going, two returning, and one day over there.

The scenery, even in the neighborhood of Roseau, is wildly beautiful and at times overpowering, with the dark clouds and sinister-looking mountains (page 296). Deluges of rain were followed throughout the day by bright sunshine, making everything sparkling and friendly again.

From Roseau we had a glorious sail across the Dominica Channel to Martinique. These lower Leeward Islands, as a rule, do

not have a large outlying reef. The water goes off quickly into great depths, so that it is frequently safe to sail close to the shore.

Before long we were passing the foot of Mont Pelée, and then St. Pierre. It is not an abandoned city (pages 291, 292). A new town is springing up out of the ruins of old buildings destroyed in the cataclysmic eruption of 1902.*

We did not stop, but continued along to the well-protected harbor of Fort-de-France (Plate IV and pages 273, 293).

One of our Martinique friends owned part of the southern slope of forbidding Mont Pelée, and had cultivated it as a sugar plantation. Here he erected a villa, with swimming pool and formal gardens, some 600 feet above St. Pierre, overlooking the town and harbor. He said he had built

* See "Recent Volcanic Eruptions in the West Indies," by Isabel C. Russell, NATIONAL GEOGRAPHIC MAGAZINE, July, 1902.



Photograph by Edwin L. Winherd

HERE PELÉE'S FIERY BREATH SNUFFED OUT A TEAM OF HORSES, BUT MISSED THE DRIVER

Along this road, northeast of St. Pierre, Martinique, Monsieur Etienne Simonet was driving before the eruption of 1902. When he reached the spot where the two figures are standing, Mont Pelée (hidden in the clouds) blew off its head. The carriage was upset and Monsieur Simonet's hand badly burned, but he escaped the full force of the blast by running up the road. Similar disaster overtook travelers on another road, when a huge ball of fire rolling down from the crater killed all but two of the passengers in a coach.

there to encourage the people to reoccupy St. Pierre.

Another Martinique friend was a resident of St. Pierre at the time of the disaster of 1902. The eruption had been going on for ten days or so, gradually getting worse.

His wife said she thought he had no right to remain in St. Pierre and keep his two sons there in college. She persuaded him to take them all over to Fort-de-France, separated from St. Pierre by a mountain range. Two days later he telephoned from Fort-de-France to a friend in St. Pierre, asking for news of the eruption. In the midst of the conversation he heard a shriek. Then, silence.

A few seconds later came the sound of a terrific explosion and, following this, witnesses say, a blast of fire swept down the mountainside to St. Pierre, five miles dis-

tant from the crater, and completely destroyed the city, all within three or four minutes.

Another first-hand story of the eruption was told me by a lady I met at Fort-de-France. She was a girl of 15 at the time, and was returning with a friend on the morning of the explosion from Fort-de-France to St. Pierre. They were traveling by diligence on the interior road, which passes through the mountains. This road soars to about 1,200 feet above sea level as it passes through the final notch. Shortly after leaving this pass it makes a turn, and Mont Pelée looms up in full view.

The passengers were all watching the eruption; the early stages had been in progress for days. While they were looking, the mighty explosion blew out the side of the crater, eight miles away. My friend



Photograph by Edwin L. Wisford

DR. FRANK A. PERRET, WHO "TALKS WITH VOLCANOES," AT WORK IN HIS MUSEUM

Specimens of volcanic bombs are being examined by the American scientist who has devoted 34 years to the study of the "earth's safety valves," and who is much beloved by the people of Martinique. From the ruins of St. Pierre, the "Pompeii of the West Indies," wiped out by Pelée in 1902, he has collected carbonized bread, rice, spaghetti, books which can still be read, even perfume bottles sealed and misshapen by the intense heat. Here, too, he has assembled data on volcanology, a field in which he is one of the world's authorities. One of the early expeditions of the National Geographic Society was to Martinique to study the effects of the 1902 disaster (page 290).

saw what looked like a huge ball of fire rolling directly toward them.

She and her friend were terror-stricken. They leaped from the diligence, and ran back to the notch, barely reaching it before the fire passed by. They were saved, but no trace was ever found of the carriage, horses, or other passengers.

OVERNIGHT GUEST STAYS 20 YEARS

The people of Martinique are wonderfully hospitable.

Many years ago, late one afternoon as a severe storm was just about to break, my friend's father, Mr. de G., saw a man with a bag in his hand standing on the far side of a stream, which quickly became a torrent from rain in the mountains.

There was no bridge and no boat, except one on the near side, belonging to Mr. de G. Taking pity on the stranger, he ferried him over and, as the storm was then already upon them, invited him to spend the night.

During the evening the guest impressed all the members of the family so favorably that, when morning came, they begged him to extend his stay for a few days at least.

Those days grew into weeks, months, and finally years, with never a word from anyone about his leaving. Children who were babies when he arrived grew to be young men and women.

One evening, about twenty years after his arrival, the stranger and Mr. de G. were sitting in front of the house, overlooking the green fields of waving sugar cane and the beautiful blue Dominica Channel beyond.

"My very old and dear friend," Mr. de G. said, "you have now become one of the family, whom we all have learned to love; so perhaps I may be permitted to ask you a question on a subject that has always puzzled me. Where were you intending to go that afternoon when I ferried you over the river?"

The stranger rose from his chair, and,



Photograph by Edwin L. Wisnett

THIS IS AN ARCHITECT'S HOME, NOT A LOOKOUT TOWER

Well adapted to the Tropics are the wide overhanging balconies which shade the lower part of a modernistic Martinique house from the scorching midday sun. The flat rooftop, with its sweeping view of Fort-de-France and the blue Caribbean, is an ideal "crow's nest" at sunset.



Photograph courtesy Canadian National Railways

A DOMINICAN DUNKS A DONKEY!

Perhaps "dreaming in the bath" might equally well describe this contented animal's bland reaction to a brisk shampooing. White and preferably scanty is the costume of most West Indian negroes.



Photograph by Ewing Galloway

HIDDEN ROCKS, ROUGH COBBLES, AND SURF MAKE LANDINGS HAZARDOUS ON SABA

"Don't use your own tender; you'll smash a hole in it. Wait until the Government boat comes for you," the *Alice* was warned before arrival at the little Netherlands island. Because Saba rises abruptly from the water and because of its profile, it is sometimes called "Napoleon's Cocked Hat."

drawing himself up to his full height, replied: "Mr. de G., I see that I have worn out my welcome."

He hastened to his room, packed his bag, and left. Nothing has been heard of him since that evening.

HURRICANES TRAVEL NARROW PATHS

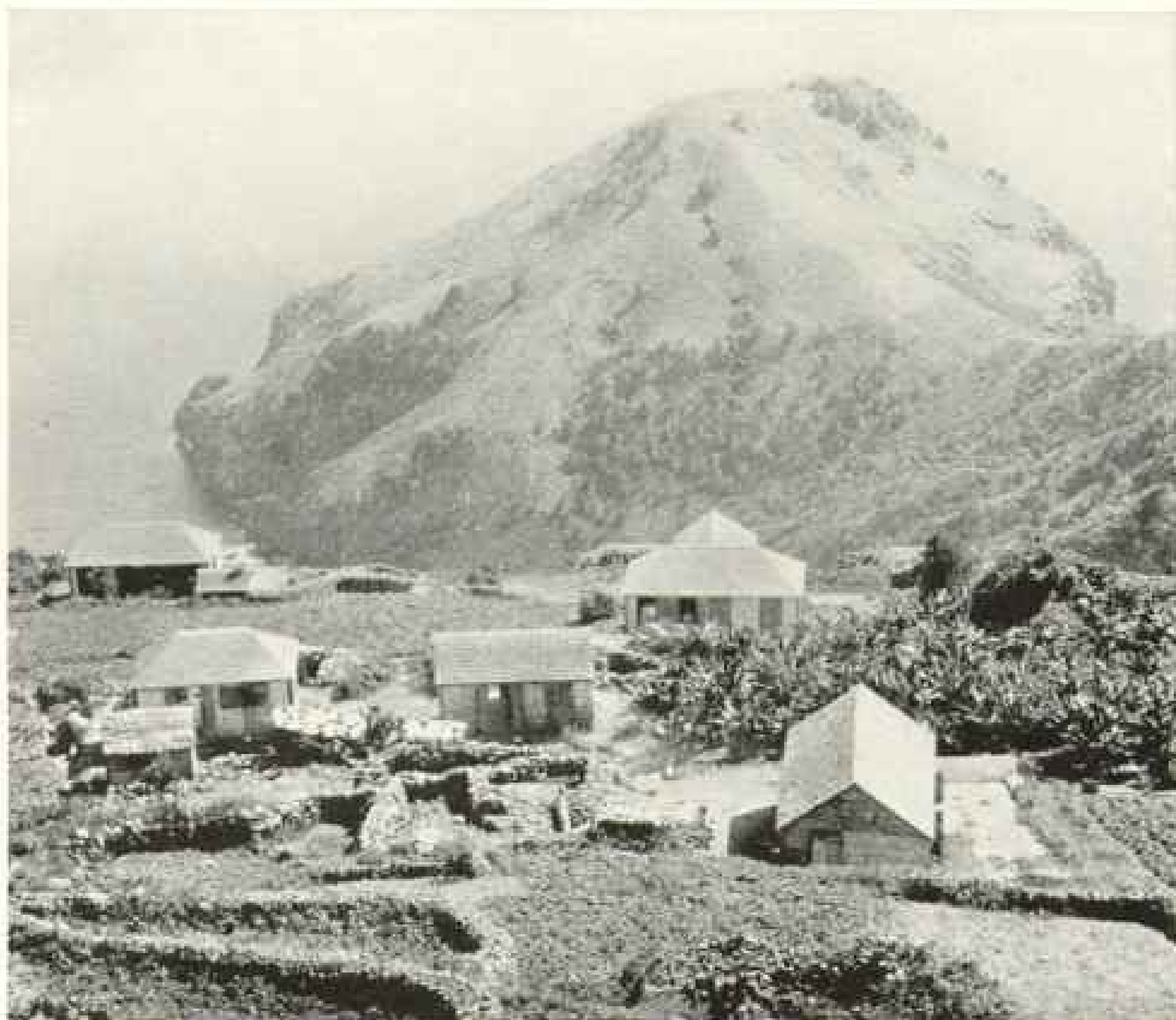
After a full week at Fort-de-France, we reluctantly took down our awnings, removed our sail covers, and began our return to the United States, stopping once more at Dominica; then at the Iles des Saintes. After passing Guadeloupe we changed our course to Antigua.

We had visible proof of the limited path followed by a hurricane. In Martinique, for the first time on our cruise, we got fruits of all kinds, because the island had not been touched by the hurricane in 1928. It had

felt only a bad gale. Dominica received considerable damage, but Guadeloupe was devastated. Yet Antigua, about 40 miles to the northward of Guadeloupe, was practically unharmed.

When a hurricane is believed to be approaching, there is always warning a reasonable time in advance, sometimes two or three days. A "detour" of 100 miles from the track of the approaching storm often is sufficient to remove one from the danger zone.

British Antigua is exceedingly attractive. There are beautiful wooded hills, some of them high, but no really lofty mountains. Thus it does not suffer from the continual tropical rains which deluge the more mountainous islands in the path of the trade winds. There is an excellent bathing beach, and some good roads (page 298).



Photograph by Ewing Galloway

AN ISLAND OF PARADOXES, SABA IS DUTCH, BUT ITS PEOPLE SPEAK ENGLISH!

Both American and Netherlands currencies are used in this tiny colony whose trim cottages are perched on the steep slopes of an extinct volcano. Visitors must climb hundreds of steps to get to Bottom, the chief town, which nestles on the floor of the crater. Islanders derive their income from the fine drawn lace made by the women and the sailing of the men. Hell's Gate (above) lies in a little hollow near the crater rim, overlooking Flat Point and the blue Caribbean.

The island has many quaint harbors, one of which is St. Johns, where the steamers land. Another is English Harbor, a much better anchorage, which has the additional interest of association with Nelson.

Nelson was in the West Indies from 1784 to 1787, and spent many months at English Harbor, Antigua. He revisited it for a day in 1805, during his famous pursuit of Villeneuve. A monument overlooking this beautiful harbor recalls the many men who died there of yellow fever, then a terrible scourge. What a change there has been in life in the Tropics, as a result of our knowledge of the fever-bearing mosquito!

MEMORIES OF NELSON'S TIME

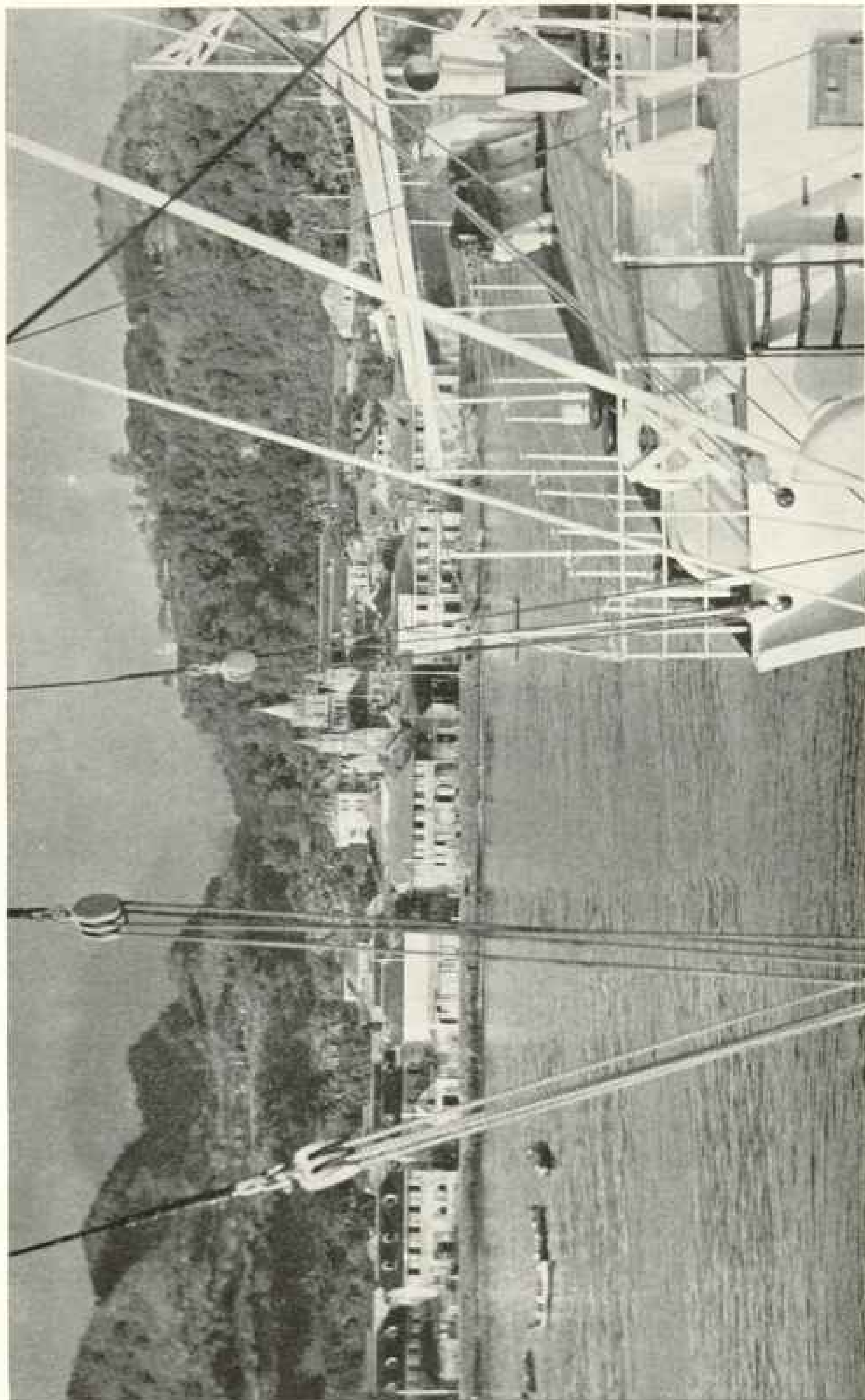
Many things at English Harbor have been preserved as they were in Nelson's

time. A large white stone, set into the brick wall, bears this inscription:

In this Place
Dwelt
HORATIO NELSON
You who tread his
footprints remember
his glory

Barbuda has no port of entry, and foreigners must obtain permission to land there from Antigua, the government seat of the Leeward Islands. The Governor asked one of his staff to go with us to see that we found the fish and game for which the island is noted, and provided us with a pilot who took us inside of a dangerous-looking reef. We dropped anchor in a well-protected, although slightly rough, harbor.

The village of Codrington, on Barbuda,



Photograph by Philip D. Reinhard.

STEEPLY TO THE CLOUD-CAPPED MOUNTAINS RISE DOMINICA'S RUGGED SHORES

Like the floodlit stage-set for a tropical opera gleams the water front of Roseau, capital of the British island. At night, huge fireflies of this enchanted isle "seem to emit more light than the electric bulbs illuminating the town." Small tenders (left) shuttle between ship and shore with passengers and freight. The dance-capped tower of the cathedral rises among crowded buildings. Dominica is one of the West Indies' leading producers of limes and their by-products.



SOLEMN SITS A GUADELOUPE TOM SAWYER

Puzzled and distrustful, the boy holds tight a large specimen of the gourdlike fruit of the calabash tree. Though not edible, the fat irregular globes have many uses when the pulp is scooped out and the shell dried. With a hole drilled in the top, a gourd may become a water jug; cut in half it makes a pair of bowls.



Photographs by Edwin L. Wislizen

A "NATGEOBOOC" MEMBER PICKS A PAPAYA FOR BREAKFAST

On his plantation near St. Joseph, Martinique, Mr. Joseph Hayot, a member of the National Geographic Society for many years, grows the delicious tropic fruit, which looks like squash. Served cold, with a bit of lemon or lime, it tastes like a cross between a cantaloupe and a honeydew melon.



Photograph by Edwin L. Wisland

THERE IS ALWAYS ROOM FOR ONE MORE IN AN ANTIGUA BUS!

Women with trays of candy and cake try for last-minute sales before the jitney leaves St. John's. Though fares are trivial, many natives prefer to walk even to remote parts of the British island.

is about three miles from the landing place, opposite an old Martello tower. We were thus obliged to leave the *Alice* in the custody of the crew, and on the shore we found Captain Downing, in charge of the island, waiting for us with horses and teams. He had been notified by wireless from Antigua of our expected arrival.

We did not see any deer or wild hogs, of which there are supposed to be many on the island, but some of their tracks were visible. Two of our crew brought in 36 ducks and 24 guinea hens, while others had good luck fishing on the windward side of the island inside the reef.

SWEDISH PEOPLE ON A FRENCH ISLAND

After two or three days we were again under way, this time headed for St. Barthélemy, or St. Barts, as it is generally called (page 300). We anchored the next morning in Gustavia Harbor.

This is a French possession, and we went ashore fully expecting to find inhabitants

of at least French descent. However, it formerly belonged to Sweden and most of the white people are of Swedish descent. Blond hair and blue or gray eyes stamped them as Scandinavians. They are now under the rule of the French island of Guadeloupe (page 289).

We were under way again in late afternoon, headed for the Virgin Islands, which we had left nearly a month before.

The wind increased and we found we were in for one of the strong trade wind breezes. In a two-hour period we made $17\frac{3}{10}$ nautical miles, which was our best run under sail alone.

In Charlotte Amalie, we spent a morning and afternoon ashore getting papers, fuel, and drinking water, but at 10 p. m. we were under way again, headed for San Juan, Puerto Rico. The wind was very moderate all night, but we ran without the engine. By daylight we were through Virgin Passage and well past the northern end.

As the day advanced, the trade wind in-



Photograph by Edwin L. Wisard

IN ONCE-GAY CHARLESTOWN, ALEXANDER HAMILTON WAS BORN

Son of a Scotsman and a French woman, the first Secretary of the Treasury of the United States lived 11 years of his boyhood on Nevis. In Charlestown stands the rebuilt Bath House, a big hotel with mineral hot springs, erected in the eighteenth century. For a few decades the elite of England and America flocked to Nevis, some to "cure" in the warm waters, others to enjoy the gay life.

creased and by the time we arrived off San Juan it was again pushing along the huge rollers for which this part of the ocean is noted. With the breeze nearly dead astern, however, it was great fun.

We anchored in San Juan Harbor, where we went through a strenuous examination by the American Customs officials.

Before leaving the Virgin Islands, we had debated whether we should go along the south shore of Puerto Rico and then south of Hispaniola. This would have brought us by Jamaica, and probably would have involved returning to Florida by way of the southern coast of Cuba and Habana.

As such a course would make a visit to Nassau impossible for want of time, we decided to cruise along the north side of Puerto Rico and then sail across Mona Passage to Sosua, a small port on the Dominican coast fourteen miles east of Puerto Plata.

Sosua is an excellent anchorage, free

from mosquitoes, but with limited supplies. We spent the night there, and then sailed to Puerto Plata.

MAJESTIC CAP HAÏTIEN

The next morning, shortly after daylight, we were heading in for Cap Haïtien, chief city of northern Haiti,* where we anchored early in the forenoon (page 304). The approach to the harbor was a never-to-be-forgotten experience. The night had been dark, with no moon, and, as dawn approached, high ranges of blue-gray mountains appeared dimly against the sky, quickly changing to glorious greens as the sun rose, for this is the windward and rainy side of Haiti.

Even the forbidding volcanic peaks are covered to their tops with luxuriant tropical growth. The scene reminded me of the

* See "Haitian Vignettes," by Capt. John Houston Craig, NATIONAL GEOGRAPHIC MAGAZINE, October, 1934.



Photograph by Edwila L. Washford

A RASCALLY CARIBBEAN BLUEBEARD, SO LEGEND TELLS, KEPT THIRTEEN WIVES HERE

His harem's tower is now sandwiched between wings of the modern Bluebeard's Castle Hotel in Charlotte Amalie, St. Thomas. The polygamous buccaneer "had a beard so long that he twisted it into small tails and tied them with ribbons, and turned the ends up over his ears." John Teach, or Blackbeard, "the mildest manner'd man that ever scuttled ship or cut a throat," is said to have lived in a "castle" on another of the town's hills, though historians question the tradition. Charlotte Amalie is the seat of government for the United States-owned Virgin Islands.



Photograph by Vincent Gilpin

PIRATE BRIGS AND PRIVATEERS RECEIVED FIRST AID IN THIS "ST. BARTS" BASIN.

Here buccaneers' ships were careened, or heeled over, so that crews could scrape off ships' barnacles, calk strained seams, or replace broken timbers. Today the neat village of Gustavia surrounds the landlocked harbor called the Carenage (Carcenage) on this once-Swedish island of French St. Barthélemy. Montbars, the "Exterminator," is supposed to have buried vast treasure here in caves.



Photograph by Ella Burnett

VISITING SHIPS SOMETIMES ANCHOR WHERE FRENCH FREEBOOTERS UNLOADED LOOT

Hundreds of red blossoms blaze in January on this flamboyant tree arching a byway in Philipsburg, capital of the Netherlands part of miniature St. Martin Island (page 302). The village is a center for fisheries and the salt industry.

most beautiful parts of Kauai and Maui in the Hawaiian Islands.

Ashore, we motored out to Milot, to see the ruins of the palace of Sans Souci. Here you take horses and start the climb to Christophe's Castle, one of the most extraordinary structures in the Western Hemisphere (page 305).*

THE CASTLE OF A KING OF SLAVES

On a previous trip we had spent the night in the castle, on the top of a mountain 2,886 feet high, to see the sunset and sunrise. Bedding was hired from the Garde d'Haiti and carried up on a pack horse. Food and cooking utensils had to be taken along. There was plenty of fuel and an open fireplace in the vaulted Council Chamber. Rain water in the old cistern of the castle, however, had to be boiled before using.

Bronze cannon by the dozen and cast-iron cannon by the hundred stand grimly in place in the galleries of the castle. We

found a room about ten feet square knee-deep in flints for flintlock guns. The flints had never been used and were apparently a reserve stock for the army.

There is little left at Cap Haïtien to remind one of its glories in the days of the French occupation before the Revolution. Among the buildings and homes of a newer city may be seen a few fire-smoked ruins and the remains of old stone gates and walls surrounding outlying estates. It must have been a glamorous place.

With all supplies on board, together with papers giving us permission to proceed to Port-de-Paix, via Acul Bay, we again turned our prow westward.

After we passed the lighthouse at Cap Haïtien, however, we found to our surprise a heavy bank of clouds rising in the northwest, and a northwest wind already beginning to blow. This had been completely cut off by the mountains under which we had been anchored at Cap Haïtien.

A glance at our barometer showed a drop of almost $\frac{2}{10}$ between 8 a. m. and noon, and it now looked as if we would really get the norther which had been threatening

*See "Christophe's Citadel, a Monument to Haiti's King of Slaves," by Major G. H. Osterhout, Jr., in THE NATIONAL GEOGRAPHIC MAGAZINE, December, 1920.



Photograph by Henry Howard

TWO NATIONS CLAIM LITTLE ST. MARTIN, AND THEREBY HANGS A TALE!

Because ownership of the island was in dispute between a Netherlands citizen and a Frenchman, they agreed, according to the story, to divide it by letting each walk around the island in the opposite direction; a line drawn between the starting and finishing points to be the boundary. The Frenchman, more agile, strode farther, but his lucky opponent walked around valuable salt ponds, so that France won more land, but the Netherlands' piece proved the richer. Tall-shuttered windows of houses on the water front of Marigot, chief settlement of the French part, recall Seine-side villages.

off and on for a week. Acul Bay, of which I had a large-scale chart, seemed an ideal place to ride out a storm from any direction.

SHELTER IN ACUL BAY

Two hours later, with the gale beginning, we slipped into Lombardo Cove, Acul Bay, behind a hill some 400 feet high. Here we were so well protected from the howling wind that we did not even straighten out our anchor chain, although we could see the clouds sweeping by overhead and the trees on the hilltops swaying and bending.

From the *Alice* we noticed several

thatched houses on shore, but no natives. Presently we heard much shouting, but still could see no one. After a careful study of the neighborhood with our glasses, however, we made out many heads peering at us from the tall grass or cane on a near-by hilltop. We made no move to land and in about an hour an increasing number were watching us from among the trees at the water's edge.

Feeling that we ought to satisfy their curiosity and dispel distrust, two of us rowed in, taking candy and cigarettes as presents. Fifteen or twenty of them waded



Photograph by Henry Howard

GREGORY TOWN YOUNGSTERS FISH FROM A SEA-CARVED "BALCONY"

Soft limestone banks on Eleuthera, Bahama Islands, have been undercut a dozen feet by gnawing water. Pineapples, oranges, and tomatoes are raised on this scythe-shaped island, only a short sail eastward from Nassau. Coral beaches are scattered along palm-crowned shores, sculptured by the waves.

out, surrounding our boat, and we quickly made friends, with much amusement on both sides at our efforts to understand each other. An intelligent and rather comely brown woman seemed to be their leader. She gave orders which were obeyed.

We thought we had arranged to have a bunch of bananas delivered to us, but the next day we were dismayed to find that they thought we wanted to load up with them and bunches began to arrive at the shore in quantities!

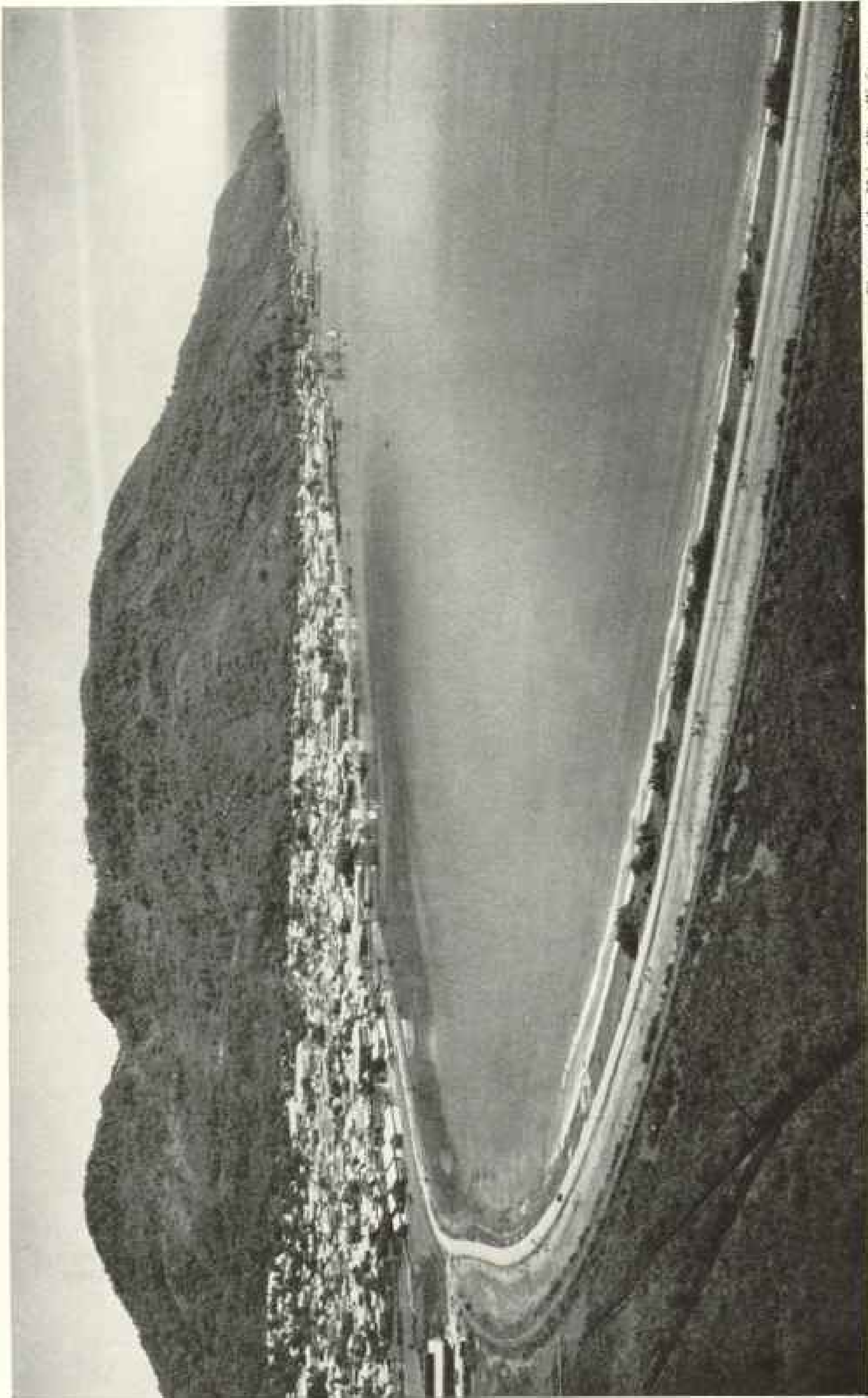
BAMBOO-POLE RAFTS

Their boats consisted of rafts about 4 feet wide by 15 to 20 feet long, made of

bamboo poles of 4- or 5-inch diameter. These were lashed together, with a raised platform at one end, containing a seat and wooden tholepins for oarlocks, the boat being propelled by crude oars instead of the single sculling oar used by Bahama natives.

An old cruising companion and student of Columbus's voyages, to whom I later wrote a short description of our cruise, replied:

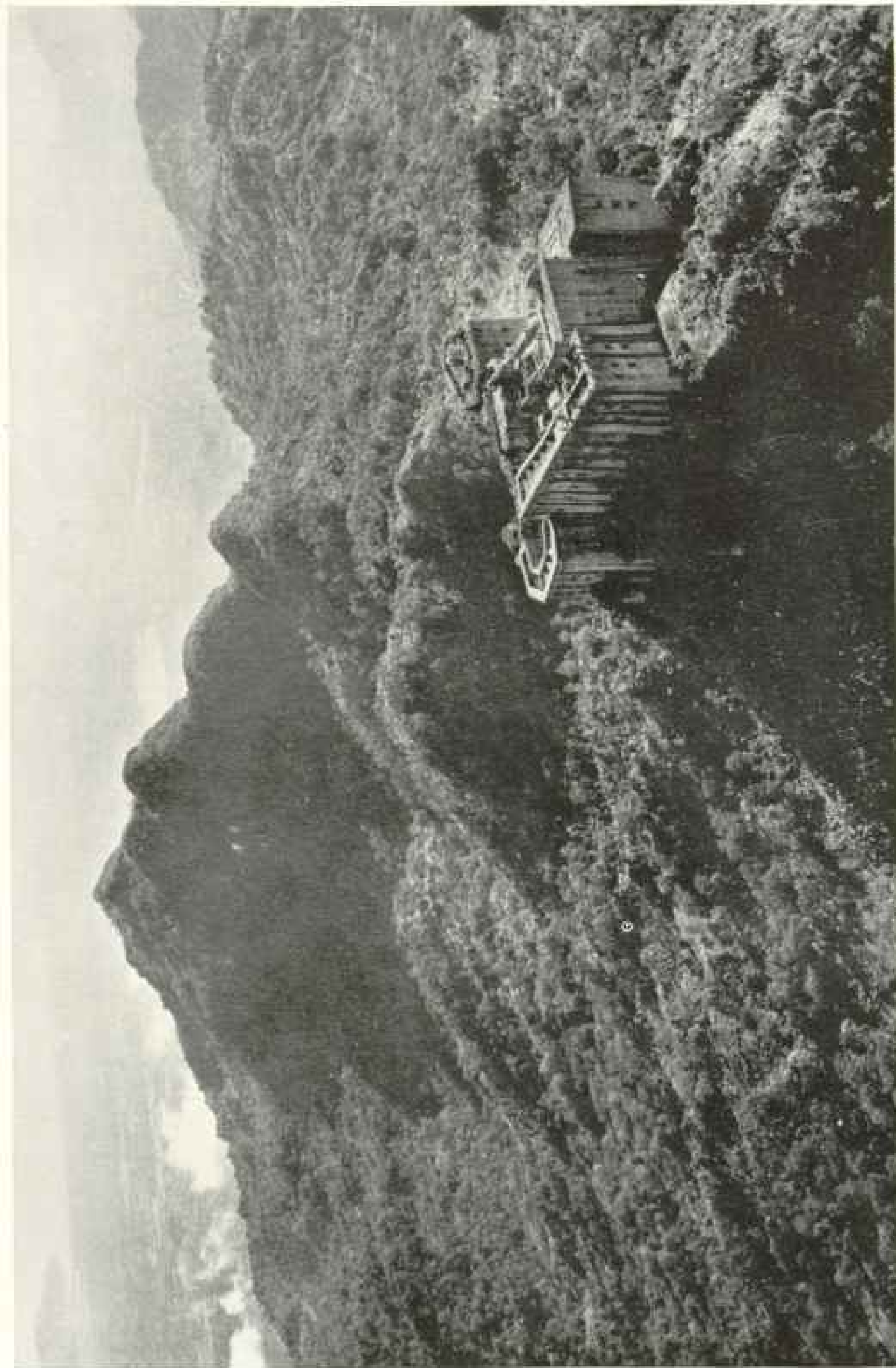
"I was particularly interested in your running into Lombardo Cove in Acul Bay. Columbus went quite daffy over it. Your description is strangely like that of Columbus. On December 20, 1492, the Admiral went with the boats to examine the harbor, and, after having surveyed it, declared that



Photograph by Major Albert W. Stevens

HERE COLUMBUS'S FLAGSHIP WAS WRECKED ON THE EXPLORER'S FIRST VOYAGE TO AMERICA

With the foundering of the *Santa Maria* on Christmas Eve, 1492, began Cap Haitien's long, glamorous, and sometimes tragic history. Capital of Haiti under the French, who made it a "little Paris," Cap Haitien has several times been destroyed by fire, earthquake, and revolution. The author found this a peculiar harbor, with a protecting series of reefs, which completely break the sea. Seen from a distance, ocean steamers at anchor appear to be riding in the open sea; yet the harbor has no roll and is usually perfectly calm.



Photograph by Major Albert W. Stevens

GUARDING A MYTHICAL TREASURE, CHRISTOPHE'S CITADEL AWAITS AN ENEMY WHICH NEVER CAME

No one has found the buillon reported to have been hidden here by the slave who became ruler of Haiti. Thousands died in the building of the mountain-top refuge for the Black King, who intended it to be a last retreat should the French fleet return to Cap Haïtien (upper left corner).



Photograph by Edwin L. Wisford

"DON'T PUFF AT ME LIKE DAT, YOU DEBBIL DOWN DERE!"

Tumbling waterfalls, boiling springs, upland lakes, and vents of sulphurous gas like this are found on Dominica. Virgin forests, continually rain-refreshed, clothe mountain slopes lifting above lime and orange orchards of the valleys.

it was equaled by none which he had seen elsewhere. He excuses himself, saying that he has been so abundant in his praise of the others that he has nothing left to say for this!

TORTUGA BUCCANEERING BASE

"The explorer added: 'I can confirm that this is superior to them all, and large enough to contain all the ships in the world, and so well sheltered that a ship might ride with safety, although moored with the rottenest rope in the world.'"

Our main object in 1934 in visiting Haiti

was to land on the island of Tortuga, actually to see the place where "buccaneers" originated. Much was written about Tortuga in the old days. In recent years, however, few seem to visit this stronghold of old sea fighters who played such an important role in the history of the West Indies (page 310).

Esquemeling, in his *Buccaneers of America*, wrote: "It is populated only on the southern part, which has only one port that may be esteemed indifferently good. Yet this harbor has two separate entries, or channels, which afford passage unto ships of 70 guns, the port itself being without danger and capable of receiving a great number of vessels."

It seemed amazing to me that Esquemeling, more than 250 years ago, should have been right in stating that the harbor had two entrances, whereas our charts and sailing directions indicated only one. We saw a boat sailing in the second one as we moved into the main entrance to the harbor.

The northern side of Tortuga affords no protection or possible anchorage—100-fathom soundings being indicated close to the shore for its entire length of 24 miles.

The southern side, as seen from the sound separating it from Haiti, is beautiful, being very hilly, even mountainous.



Photograph by Hurwood Hull

SINCE 1584, MORRO HAS SEEN A LONG PARADE OF SHIPS—SAIL, STEAM, AND AIR

Before this archway, facing seaward from the angular prow of the hoary fortification, have passed the caravels of early Spanish explorers, rakish pirate craft, besieging English, French, and Dutch frigates, Admiral Sampson's bombarding United States fleet, and, more recently, swift-flying Clippers winging their way to and from South America. But Puerto Ricans still line the ramparts when a schooner, such as the five-master *Edna Hoyt*, Boston (above), rounds the point into San Juan Harbor under full sail.

Several sections rise well over a thousand feet. The whole surface is covered to the mountain tops with a rich tropical growth. Much of the island appeared to be under cultivation.

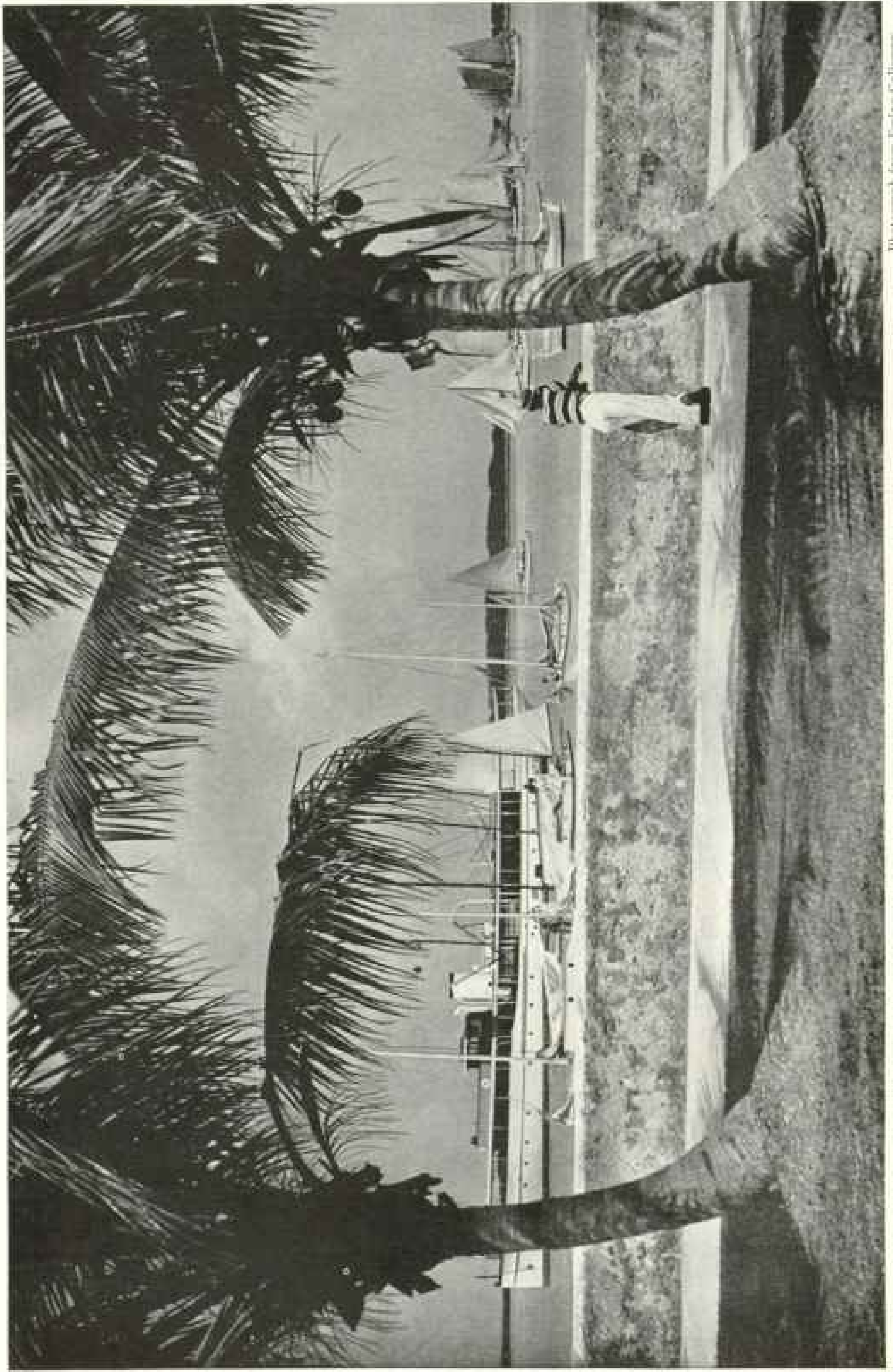
A RENDEZVOUS FOR MORGAN'S FLEET

According to Esquemeling, the channel on the south side of Tortuga was used by Morgan in 1670 as a rendezvous for his fleet from October 24 until about December 1. During that time the fleet, which

finally numbered 37 vessels, was being organized and augmented. This expedition ended the next year in the capture and burning of Panama.

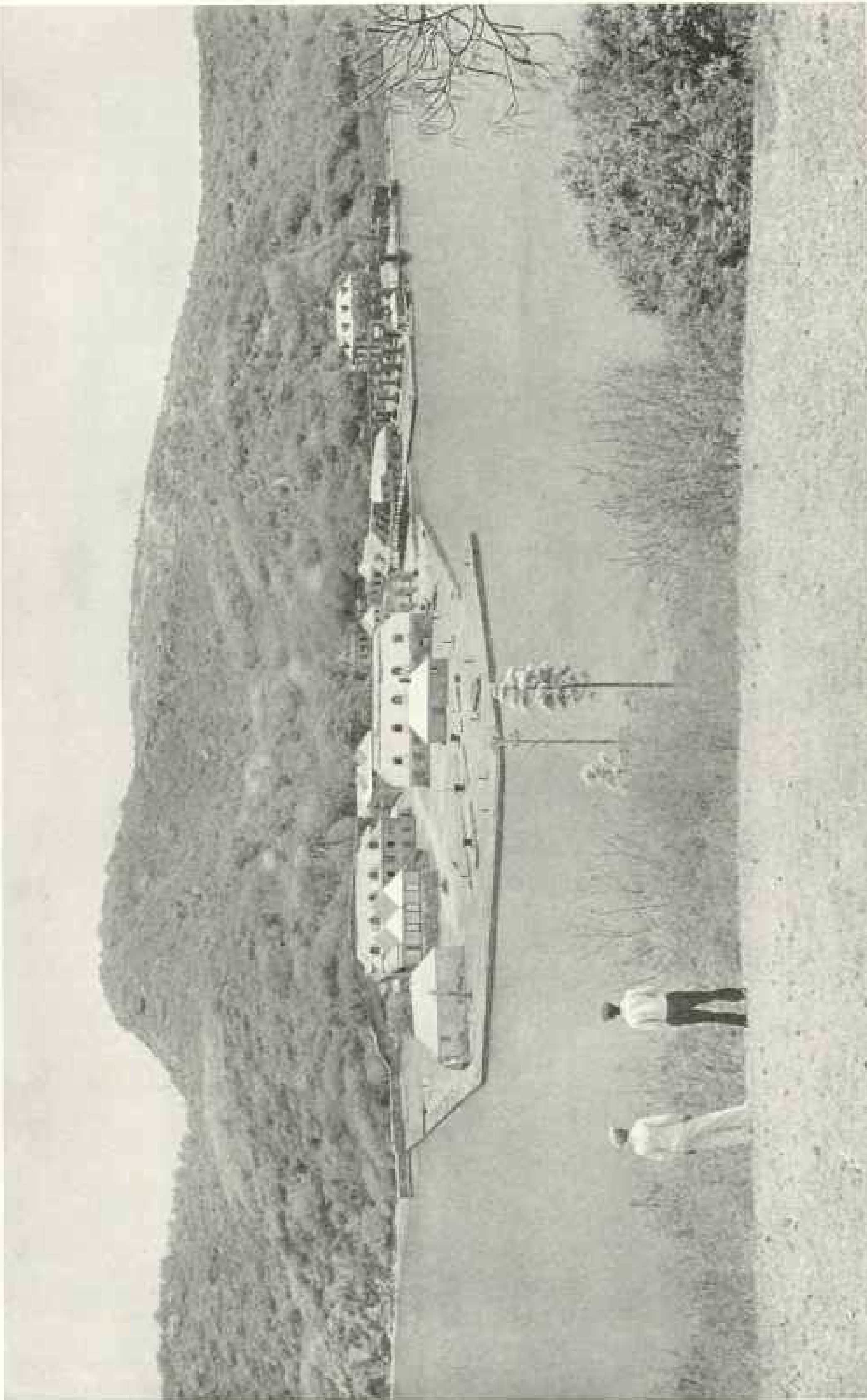
The fort was one of the strongest in the French Antilles. Its appearance from the harbor must have been very impressive, with the muzzles of its many cannon trained on the roadstead.

We saw no sign of this fort from our boat. On landing, however, we learned that it could be reached by a 15 minutes' walk,



Photograph from Ewing Galloway

JOURNEY'S END: HERE THE "ALICE" REJOINED THE TRIM FLEET OF SAILING CRAFT AND POWER YACHTS THAT FIND REFUGE AT NASSAU
Cruising through the myriad islands of the Bahamas, the crew halted in a lovely cove to paint ship and shine brasswork before dropping anchor in the harbor of the capital.



Photograph by Edwin L. Wisberd

IMMORTAL BRITISH ADMIRALS SAILED INTO ENGLISH HARBOR TO REPAIR THEIR LIMPING FRIGATES' WOUNDS

Invisible from the sea, the old Naval Dockyard near Falmouth, Antigua, now deserted, busied with sailors and shipwrights when Hood, Rodney, and Nelson brought in their vessels for overhauling and refitting. Nelson was here when he commanded H. M. S. *Borac* from 1784 to 1787. Once he wrote: "When you see me I shall be like an Egyptian mummy, for the heat is intolerable, and hundreds of mosquitoes are devouring me through all my clothes." Yellow fever took terrible toll of the men. Like black barrels appear three capstans used to carry the ships. Conspicuous buildings are officers' and seamen's quarters, sail loft, and pay office.



Photograph by DuBose Heyward

NOT A PIRATE SHIP AT ANCHOR, BUT A MODERN FULL-RIGGED SHIP

The sturdy old *Joseph Conrad* brought collectors of the Smithsonian Institution to the Tortugan roadstead where fleets of seventeenth-century sea robbers once anchored. Pirates of Tortuga, smoking beef over small fires called *boucanes*, came thus to be called *boucaniers*, or buccaneers. The island clings leechlike to the great northwestern "claw" of Hispaniola. From this convenient base the buccaneers raided the rich commerce that streamed through the Windward Passage between Cuba and Hispaniola, which appears hazily on the horizon. From here also sailed pirates to sack the Spanish cities of Darien, Portobelo, and Panama.

or rather climb. We readily located it on the hills back of the landing place.

Several houses are standing in what was evidently the interior of the fort, but the walls have been leveled. Most interesting were several large smoothbore, cast-iron cannon near these houses, lying half buried in the ground.

The southern side of the fort overlooks a precipice, with an extraordinary shaft built in the form of a large limekiln, such as I have seen near Montélimar in the south of France.

The old walls of the fort may have been used in its construction and the lime rock and wood fuel dumped in from the upper level—that is, from the site of the old fort—and the burned lime removed from the lower level. Or perhaps it may have been built as a storehouse for the booty captured

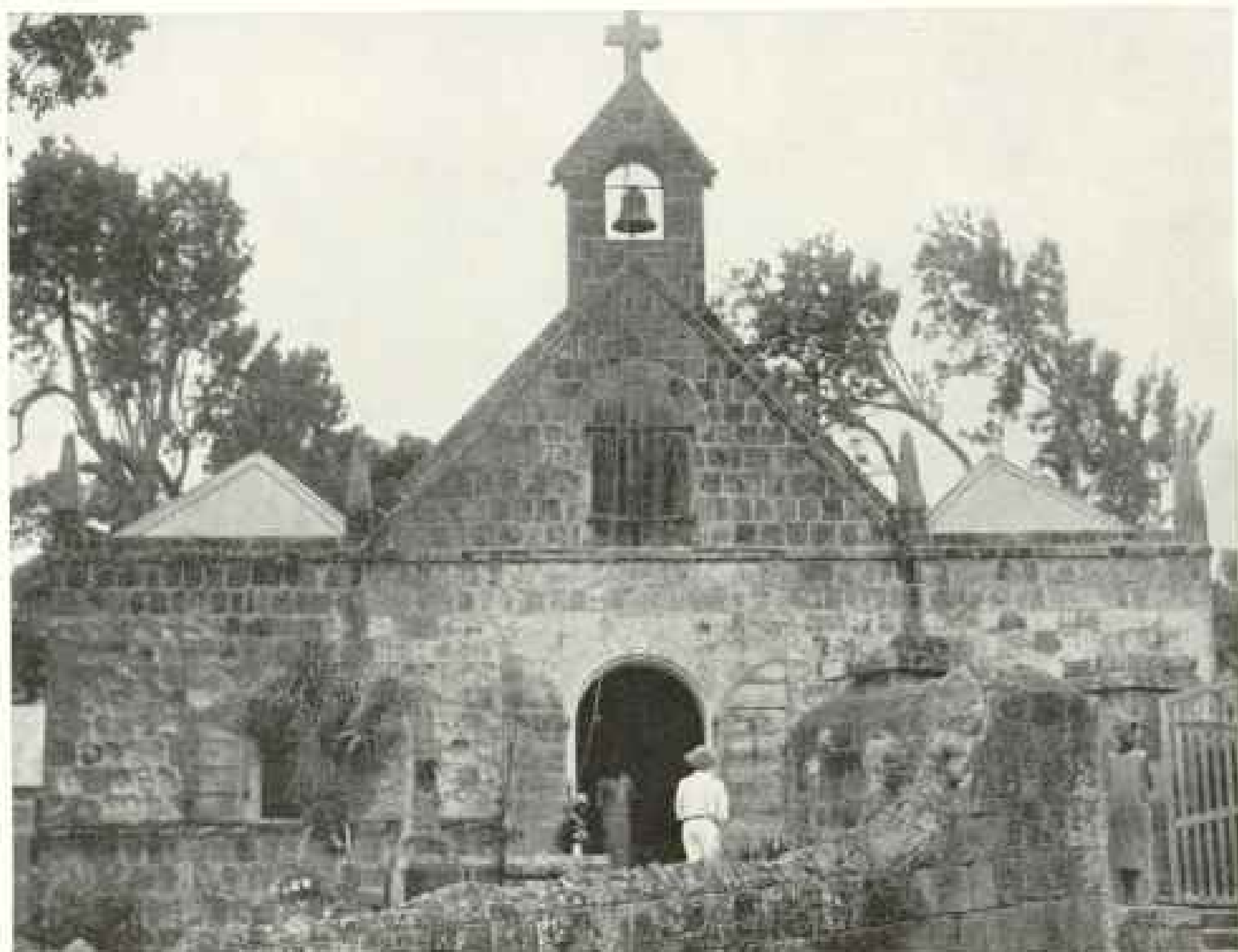
by the buccaneers and located in the safest place, under the guns of the fort.

THE INDIGO AND TOBACCO TRADE

In the late 17th century Tortuga was a thriving, important place. A French governor with his retinue lived there; fortunes were made almost overnight and spent as quickly.

Besides buccaneering, legitimate business was prospering. Indigo and tobacco, the latter second only to Habana tobacco, were raised. Ships called for supplies of smoked or "boucaned" beef obtained from the large herds of wild cattle.

The name "buccaneer," which later became synonymous with "pirate," originated at Tortuga, where for many years one of the principal industries was the raising of cattle, then curing the meat by a smoking



Photograph by Marvin Brockinridge from Black Star.

IN FIG TREE CHURCH IS RECORDED THE MARRIAGE OF "HORATIO NELSON, ESQ."

The rank of admiral, and glory and death at Trafalgar, where Britain's navy crushed Napoleon's, were unhinted secrets of the future when Nelson, Captain of H. M. S. *Boreas*, was married to Mrs. Frances Nisbet on Nevis. The wedding itself took place in the home of the governor, near Charlestown, the island capital.

process which in French was called "boucaning" and the men who did it were termed "boucaniers."

But when France went to war with Spain, some of the *boucaniers* started privateering, with letters of marque from the Governor of Tortuga. They met with such success that they did not restrict themselves to attacking Spanish ships and so became pirates and a scourge of all the neighboring waters.

Tortuga's prosperity began to decline after 1680. By 1690 the downfall of this once prosperous colony was well under way. Father J. B. Labat, who visited it at the beginning of the 18th century, found it deserted.

THE HAUNT OF FLAMINGOS

Our next run was to Great Inagua, one of the Bahamas. I had stopped there eight years before to see the flamingos.*

An old Ford automobile could then be hired at the landing place, and a few minutes' drive brought one to the salt pans, where sea water was formerly evaporated to obtain common salt.

Large, shallow lagoons, separated by roadways, were covered by huge flocks of flamingos.

I recall that we drove within two or three hundred yards of one of these flocks and then, by shouting and blowing the horn, were able to make them take flight, when the full glory of their pink plumage could be seen.

But we found that these abandoned salt pans had been put to work again. The flamingos had been driven back into a big pond in the interior of the island.

Great Inagua is a port of entry for the

* See "The Large Wading Birds," by T. Gilbert Pearson, with paintings by Major Allan Brooks, NATIONAL GEOGRAPHIC MAGAZINE, October, 1932.



Photograph by Henry Howard

OFF THE ILES DES SAINTES THE FRENCH ADMIRAL DE GRASSE LOST A CRUCIAL
BATTLE TO ENGLAND'S RODNEY

"Within two little years I have taken two Spanish, one French, and one Dutch admiral," Rodney wrote after the engagement on April 12, 1782, which secured to Britain her West Indian colonies. This victory partly repaid the British for their fleet's failure, the year before, to break De Grasse's blockade of the mouth of the Chesapeake. If the British could have gotten through the French fleet to relieve Cornwallis, there might have been a different story to tell of the Battle of Yorktown, last chapter of the American Revolution (page 289).

Bahama Islands. Here we obtained from the commissioner a paper which gave us permission to cruise among all the Bahamas. It was unnecessary to enter again, even at Nassau, which was a convenience, as we arrived at the capital in the evening.

Leaving Great Inagua, we headed for San Salvador. Since sailing from Martinique we had encountered only fair winds, as we were always in the trade wind belt. San Salvador, however, is just on the edge of the trades. We were prevented from landing there by the wind working around to the southwest, getting ready for a norther.

FACE TO FACE WITH A BARRACUDA

So, reluctantly heading north, we passed east of Cat Island and Eleuthera (page 303). Here the norther struck us in earnest, but, after a rough afternoon and night, we swung to the west and anchored in a secluded cove to do a little cleaning and painting after our long cruise, before joining the fleet of yachts in Nassau.

Just after anchoring, one of my guests lost a watch fob overboard. We could see it plainly on the bottom, in about twelve feet of water. Another of my guests offered to dive for it. I loaned him a pair of water goggles, such as are used by South Sea pearl divers, and over he went. In a moment he came up as if shot from a catapult.

"What's the matter?" I called out.

"I got to the bottom and was just about to pick up the fob," he replied, "when I felt as if something were near me. Turning my head quickly, I looked straight into the eyes of a huge barracuda. And I didn't like the expression in his eyes!"

A few minutes later the fish, nearly four feet long, swam slowly by the *Alice*.

I was able to drive a fish spear into his back, but it was jerked out of my hands. In an instant he had shaken himself clear and disappeared.

The next day we anchored in Nassau. Our party broke up and the West Indies cruise was over.

CHINA'S GREAT WALL OF SCULPTURE

Man-hewn Caves and Countless Images Form a Colossal Art Wonder of Early Buddhism

BY MARY AUGUSTA MULLIKIN

FOR nearly 15 centuries a multitude, literally hundreds of thousands, of Buddhist images carved in the living sandstone cliffs at Yun Kang, in northern Shansi, have looked down from man-hewn caves upon the drama of Chinese history. They are the work of the Toba Tatars, who fought their way here from the Lake Baikal region, set up the Northern Wei dynasty, and from Tatung ruled all North China from A. D. 386 to 532.

Enthralled alternately with Chinese Confucian and Taoist culture and with the Buddhist faith to which they were recent converts, these fiery people pursued a wayward course. For a time they severely persecuted Buddhism and destroyed its monuments; but in 452, under a new emperor, they developed a plan of creating Buddhist images which would defy destruction and outlast any future persecution.

CONQUERED FOES WERE THE LABORERS

To this end they brought to their capital, Ping Cheng, near the site of the present Tatung, more than 30,000 families from the conquered area of Tun Huang and put them to work cutting the Yun Kang caves and carving the Buddhas. These impressed workers had some artistic skill and practical knowledge of cave temples, for under Buddhist influence they had constructed similar monuments in their former home.

The work at Yun Kang probably went on until A. D. 516, although the larger portion, tremendous as it is, must have been done during a brief period. With the continued conquests of the Tobas, the capital of their empire was moved in 494 southward to Loyang, where the still ardent force of Buddhism created the caves of Lung Men. Thus the records of Wei dynasty art are fuller and surer than those of any other early period.

The Yun Kang sculptures are evidence of the impact of a powerful religion upon a people of strong emotion. There is a childlike spirituality about them which indicates that their makers had not long been subjected to the calm and settled Chinese culture.

Moved to their profoundest depths by a real conversion, these simple people of a remote age passed on the torch of inspiration. Yun Kang is the center of a great arc of influence, traceable from India to Japan and propelled across vast wastes by the burning power of a conviction that here fused into a whole the capacities of creative life, and gave them lasting form.

BUDDHISM INVIGORATED CHINESE ART AND LITERATURE

The caves at Yun Kang, sculptured with Buddhist story, carry one back to the period of the first real ascendancy of Buddhism in eastern Asia. Of all the influences upon Chinese culture from outside, none is comparable to Buddhism. It brought into art and literature a push of imaginative and colorful vigor that has ever since flowed on beside the calm current of Confucian reasonableness.

As pilgrims to this first fountain of Buddhist art in China, my fellow artist Anna M. Hotchkis and I set out from Peiping and turned our way toward the ancient frontier. We were reversing the route of the invading Tatars, passing outward through the Nankow Pass, the scene of battle throughout history. After sixteen hours we left the train at Tatung, north Shansi, at four o'clock in the morning.

Our prospective host, the Reverend Mr. Griffith, now dead, of the Anglican mission, had sent a servant, bearing a note of welcome, to meet us. After the usual powwows with over-eager coolies, we trustingly wandered in rickshas into the unknown darkness. We passed through several cavernous suburban gates that made us think in the half light of dawn of the huge arches of Roman baths.

A CALLING CARD OBTAINS PRIVILEGE

At the gate of the city wall there was a long line of bullock carts, beasts and drivers equally drowsy as they awaited the daylight opening of the gate. It remains a pleasing mystery that a calling card in a foreign language should prove an "open sesame." The police, fingering our cards with a subtle



Photograph by Gilbert Grosvenor

NO "RAPID TRANSIT" ARE THESE PEKING CARTS

Slowly they toil along the North China roads, alternately deep in choking dust or sticky mud. When loads are heavy, horses or donkeys are hitched in tandem. In similar conveyances the author and her artist companion made the 10-mile journey between Tatung and the Yun Kang caves.

suggestion of privilege, opened the gate just enough for us to creep through, while the patient natives still waited.

On a later visit, we were guests at the Anglican hospital directly outside the north gate. During a siege of some months, the hospital, in trying impartially to care for the wounded of both sides, drew upon itself retaliatory firing from besiegers and besieged. One looks with admiration on these isolated groups of foreigners who have quietly followed their chosen work of practical and spiritual helpfulness under such hard conditions.

On our first visit, arriving as we did early in the morning, we gladly took our host's advice to finish our interrupted night by two hours more of sleep before breakfast. By ten o'clock we got into mule-drawn Peking carts with our servant and our sup-

plies and traveled on toward the Buddhas, which were drawing us with their magic power through all hardships.

It should be explained that for the foreign traveler, preparing for a long stay inland, comfort and health demand equipment of camp beds and bedding, some food supplies, cooking pots and pans, simple table dishes and cutlery, and a servant to manage all these.

The local people of Yun Kang live on a very restricted diet, millet being the principal dish of every meal, garnished in spring-time with large, rank leeks.

ON THE OLD DESERT ROAD

We rode over the old desert road which goes on through Kweihwa and Paotow to the interior of Asia (map, page 315). The bleakness of the mountains and the scant

cultivation of the river margin proved the desert near.

Halfway, we passed the small Kuan Yin Tang (temple), perched on a bluff at a turn in the river. The road passes through an arched tunnel in the foundations of a small theater which faces the Kuan Yin Temple. At the side of the road, before the temple entrance, is the magnificent Ming "spirit screen." Its sumptuous form and color are in startling contrast to the barren, almost uninhabited hills.

WHEELS ON A RIVER BED

Jogging in our heavy carts through the almost dry, stony river bed which served as a road, past miles of sparsely populated land, we felt a pervading curiosity growing to excitement as we neared our goal.

The cliffs were higher, there were a few premonitory caves flanked by carven figures, and then a bend in the road revealed the little village, the gleaming tiles of a temple, and the black mouths of caves in tiers and irregular groupings up the face of the cliff (p.316).

Upon our arrival we found that the temple compound also housed a school and a police station. The priest, the caretaker, the three policemen, and the young school teacher vied with one another in their amiable efforts to make us feel at home.

Since then, a visitors' resthouse has been built near the main road, but perhaps we should still prefer the old rooms in the very shadow of the finest caves, for we were given a side building in the court of the chief temples.

Now we faced the task of acquainting ourselves with an enormous and ancient monument of history and art, to which no simple guidebook existed. We had come to record with pencil and brush as much as possible of its mystery and romance.

If one views the long cliff of Wu Chou Shan at a distance, it is apparent that its natural slope was cut back to a vertical face



Drawn by Ralph E. McAleer

WITHIN A LOOP OF THE GREAT WALL, WEST OF PEIPING, LIE THE YUN KANG CAVES

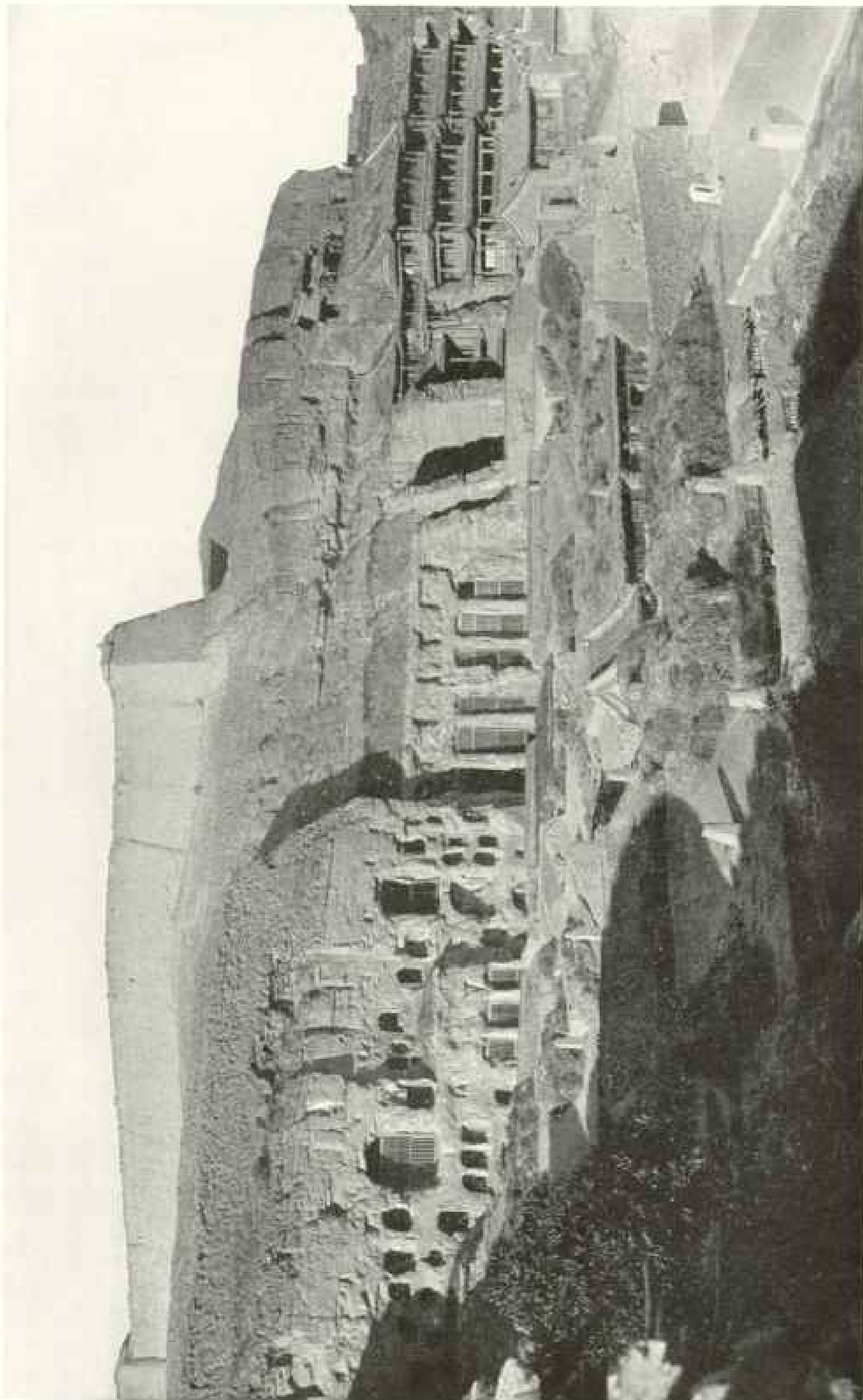
Tatung was the ancient capital of the early Northern Wei rulers who commanded the carving of the grottoes in a cliff 10 miles away. Shortly after hostilities began near Peiping in July, 1937, this northern district was occupied by Japanese troops.

before the caves, grottoes, and niches were hollowed into its wall. The surfaces between caves, now much weathered, still bear traces of rows of seated Buddhas in low relief, forming an allover pattern.

YUN KANG AND ITS PEOPLE

What a labor of Hercules it must have been for the makers of these caves and images to hew them by hand from the solid rock! The caves extend along the cliff for a mile or more, their irregularity in size and placing being due, perhaps, to differences in the rock formation.

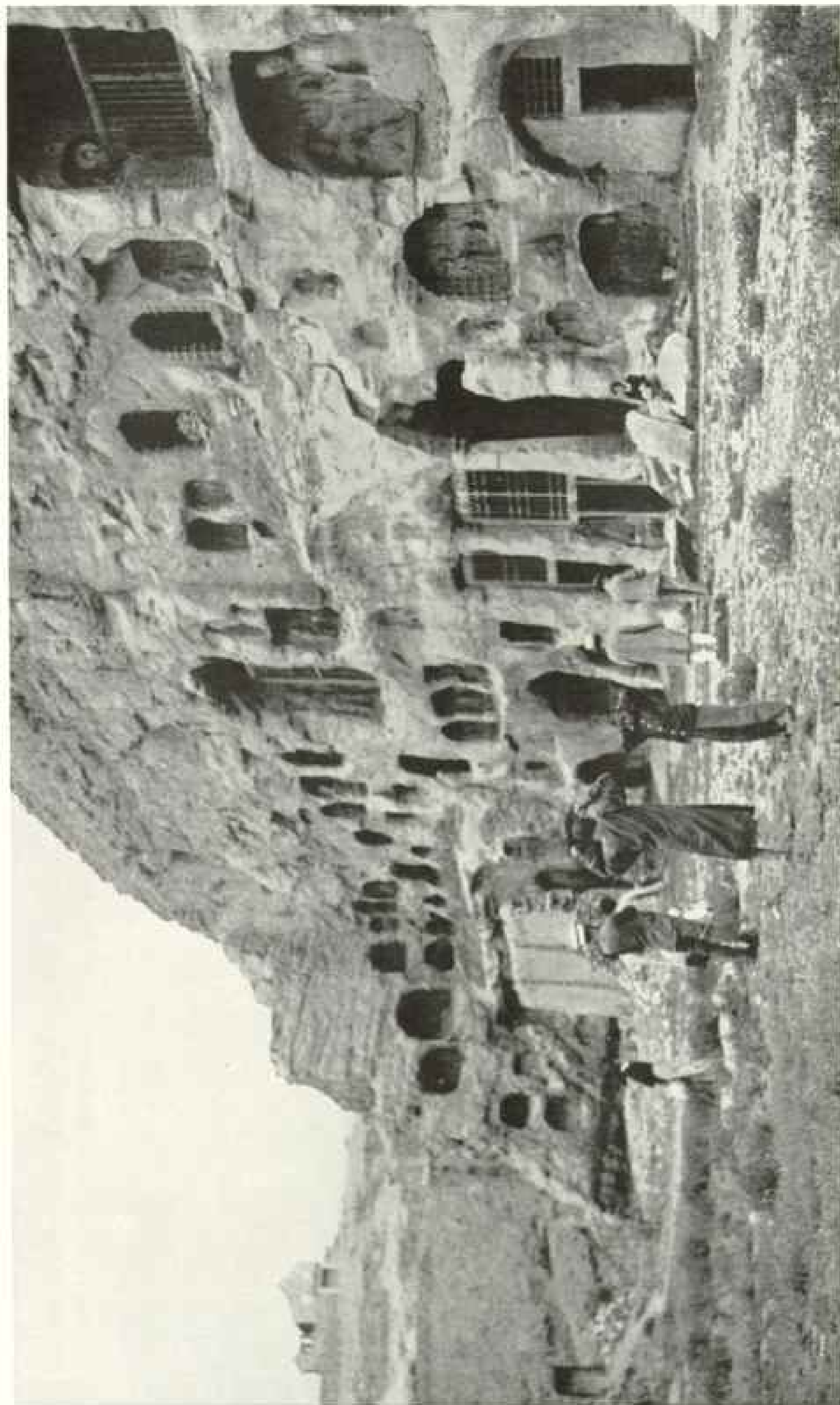
Variations in reports of the size of the caves suggest that they have not yet been accurately measured. The cliff may be 200 feet in height, the caves from 20 to 30 feet



© H. Swain, courtesy Mrs. Annie Archibald

“LET THESE ROCKS FOREVER PROCLAIM THE GLORY OF BUDDHISM”

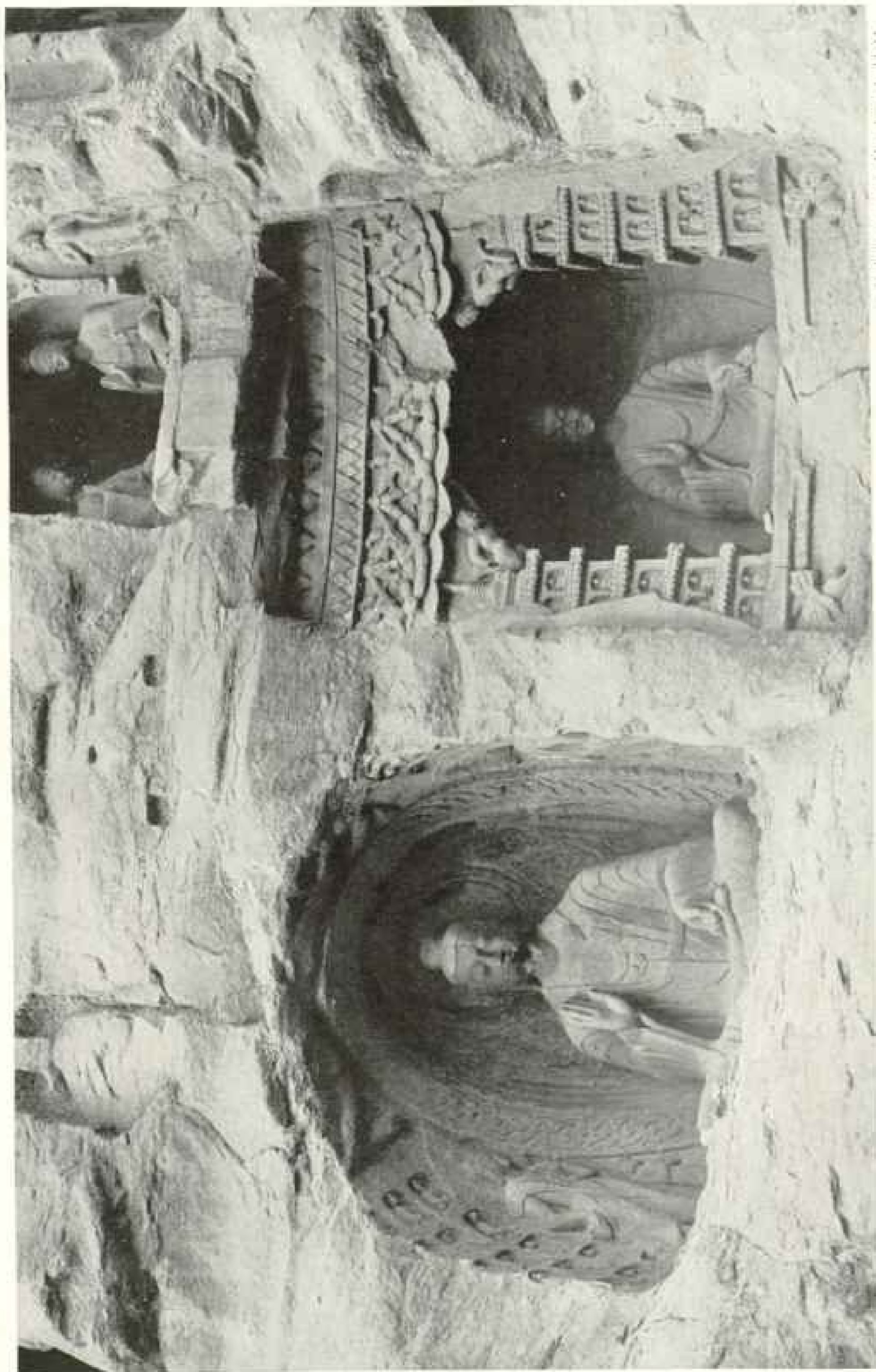
Such was the thought of the Northern Wei rulers when they ordered the Yun Kang caves to be sculptured. The expression of strong religious fervor, intensified by earlier persecutions, rather than the creation of a monument, prompted the builders. Much of the bureaucratic task was performed between A. D. 452 and 483, although the work was not fully completed until the next century. Formerly wooden structures, such as those at the right, covered the fronts of several cave entrances. These wooden façades cover the O Mi To Fo and the Shih Chia Fo caves (page 329).



Photograph by Gilbert Grosvenor

THE CLIFF FACE, AS WELL, AS THE LABYRINTH OF CAVES, IS MAN-CARVED

The natural slope of Wu Chou Shan was hewn back to present a vertical surface into which the grottoes were chiseled. Most of the outer decorations, and sometimes the walls themselves, have weathered away. Villagers of Yun Kang living in mud huts at the base of the cliff often store farm implements, hay, and coffins in the elaborately wrought caverns (page 320). The sealed coffins await a propitious day, to be selected by geomancers, for burial. Many children present their father a coffin, as a mark of respect, on his sixtieth birthday. The only tablet found at Wu Chou Shan was high up on the wall of the last cave on the right. Dr. Gordon King states that "the tablet is dated 483 A.D. and records the decision of 54 disciples of Buddha, men and women, to erect a stone figure to Buddha. It also expresses the hope that the project will bring blessing and protection to the Emperor and his family and to the promoters and their relatives."



© H. Iwata, courtesy Mrs. Anna Archbold

NOW CAMEL CARAVANS BEARING KEROSENE PASS BEFORE THEIR EYES, WHICH ONCE SAW WEI MONARCHS HALT IN REVERENCE

The sculptors of these notable monuments aimed to carve in the permanent rock so many thousands of caves and statues that the most passionate enemy of their faith could never destroy all their pious work.



Photograph by Gilbert Grosvenor

THE ENTRANCE TO THE SHIH CHIA FO TEMPLE IS THROUGH THIS COURT

The most interesting feature of the cave is the central column, which is curved to represent a colossal seated figure of Buddha, 56 feet in height (page 329). Four distinguished Chinese physicians and surgeons of the Rockefeller Peiping Medical Union and their wives, all educated in the United States of America, and Dr. and Mrs. Grosvenor pause for a photograph before climbing the long, rickety staircase, which leads to the level of the enormous gilded head.

in depth. The Buddhist images vary in size from a few inches to 50 feet or more. For the largest is claimed a height of 75 to 90 feet.

The cliff ends at a promontory in a bend of the river, where are to be seen entrenchments made by General Feng Yu-hsiang in 1929. Yun Kang must have been considered a strategic position in many periods of warfare. On the height above the cliff is a huge horseshoe-shaped "spirit wall" of adobe, flanked by towers. At its center is a small temple in a bold position.

At the base of the cliff has grown up the village, so close to the caves that some of them can be entered only through the walled yards of little houses (pages 317 and 343). Farm carts and implements, hay, and coffins are stored in caves, and doubtless through centuries of neglect the villagers have come to look upon the caves and statues as their own property.

Mingled with memories of stone saints and angels is that of a bleary-eyed, toothless asthmatic who hounded us for "cunshaw" because we had painted in "his" cave.

Between the river and the cliff the village extends in a long line on either side of the highway. Its substantial brick wall and high, stately gate seem out of proportion to the size of the village, which, lying as it does, on the route of armies, was evidently prepared to defend itself in the days of simpler weapons.

CARAVANS OF ROMANCE, AND KEROSENE

The only village industry appears to be innkeeping for carters and cameleers. Somber-toned bells attached to the necks of bullocks and camels announce a constant traffic. Our romantic raptures were cooled by finding that westbound merchandise is chiefly cigarettes and kerosene, with an appropriate accompaniment of matches (*yang-kuo*, "foreign fire," as the Chinese call them), and that eastward the loads are of hides and wool.

The carters are gaily clad, particularly in autumn when their clothing is new and clean, with white trousers and red vests. Women and children wear a greater variety of colors than do their cotton-clad neighbors farther eastward, where dull blue predominates. Here one sees also mauve, reds varying from "turkey" through crimson to magenta, and greens in a gamut from blue to saffron.

A few of the women keep to an ancient

type of coiffure, with a French twist at the back and a high knot on the crown, rather like Tang dynasty figures or the present-day Japanese style. One scans their features with an unanswered question as to whether any of these are descendants of the 30,000 families from Tun Huang.

The native stock of north Shansi is largely Mongol, though now overlaid with Chinese habits. The social center of the village is opposite the entrance to the chief cave temples, in the form of a once handsome theater stage, such as is frequently attached to temples, the audience being expected to stand in the open.

The service of some strolling troupe of actors would be paid for by group subscription, or by some wealthy family to celebrate a birthday or other event. The shabby condition of this stage suggested that no one in Yun Kang had felt in a festive mood in a long time.

Visitors are looked upon as amusing interlopers. After a busy day of painting and study among the caves, we would trudge "home" to our dusty rooms in the temple court. Our neighbors, the priest, the policemen, and the school teacher gathered eagerly to see our work, commenting with an appreciative click of the tongue and a thumb upraised in praise.

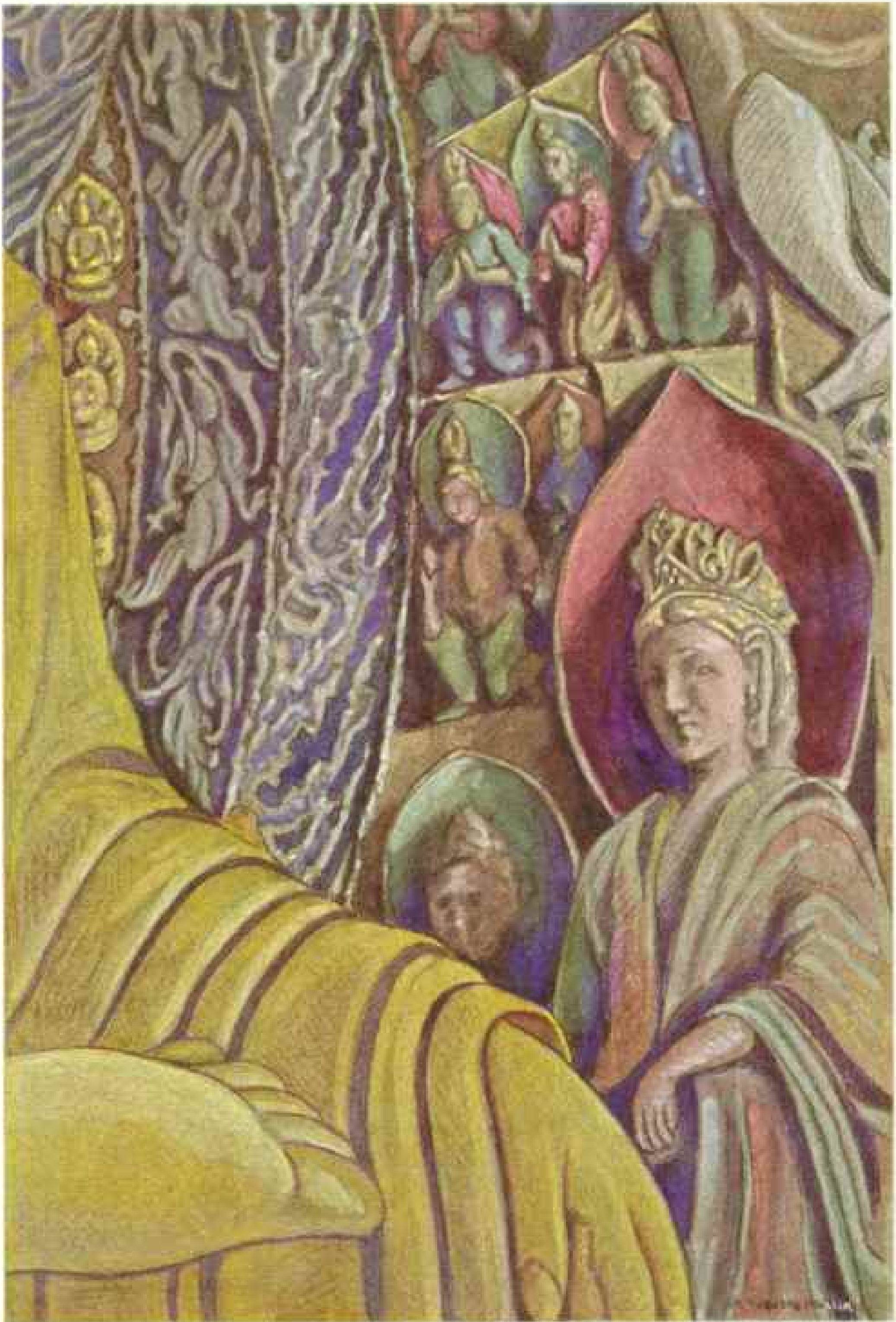
The pupils, all boys, had been warned to keep at a respectful distance. Nothing harder can be asked of a Chinese than to curb his curiosity. At dusk, the school work finished with song, the 17 wriggling youngsters in baggy clothing standing in a swaying line and lifting up their voices in explosions of sound, while they turned their heads almost backward to keep an eye on us.

In the two most important caves, O Mi To Fo (page 329) and Shih Chia Fo (Plates I, II, III, IV), a priest or a caretaker burns incense and taps a bell at the appointed hours, but we saw no service held. Groups of camel drivers who pass constantly through Yun Kang wander in to bow, their hands joined in exactly the attitude of the sculptured adorers. After this act of worship they familiarly slap the Buddha's knee, exclaiming proudly, "All stone, all stone."

YUN KANG ONCE AN ART COLONY

Yun Kang in the time of its creation could not have been the primitive, barren village it now is. There must have been a gifted gathering of sculptors from far and near who would have stimulated each other

BUDDHIST CALM SURVIVES ALONG CHINA'S GREAT WALL

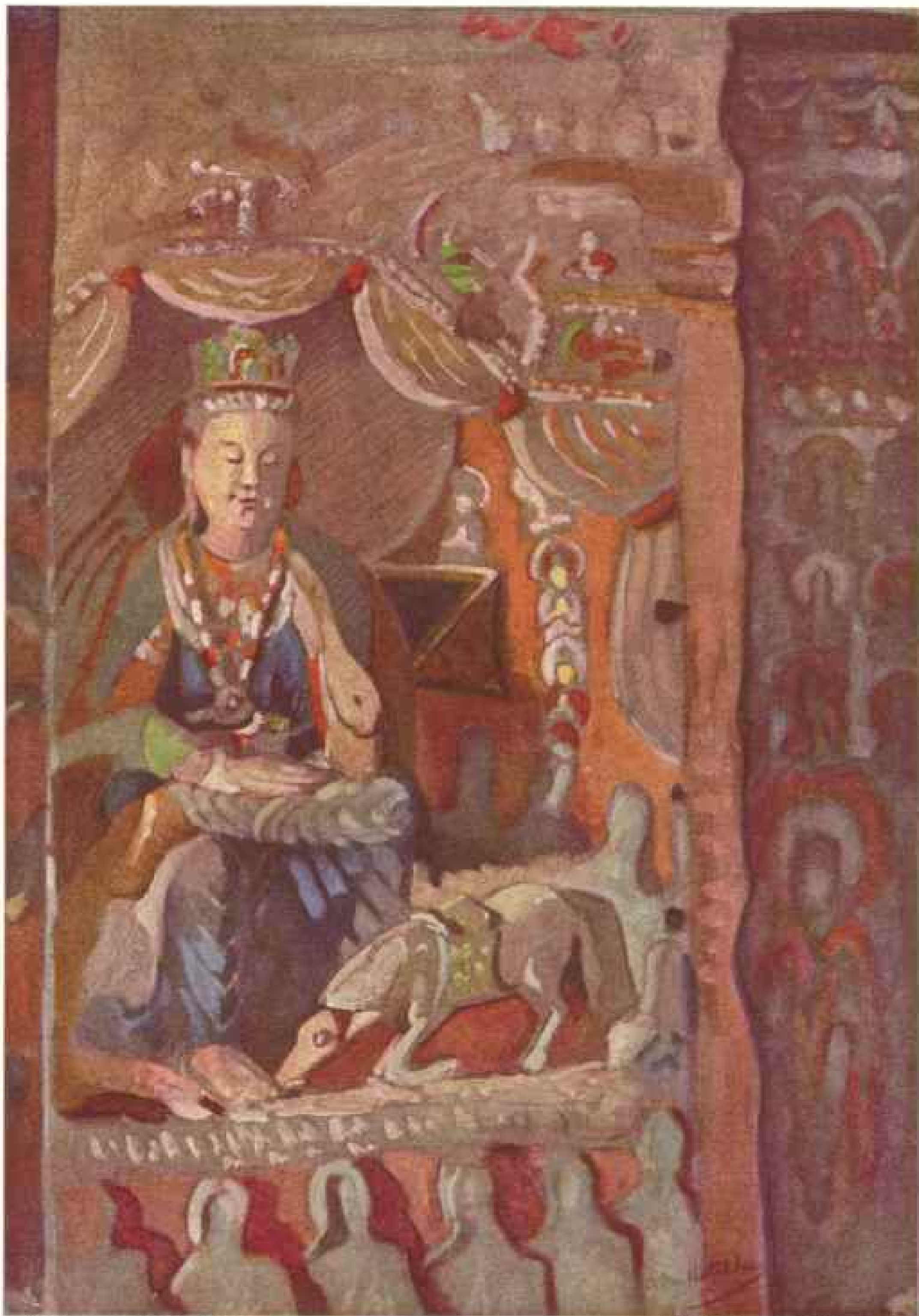


© National Geographic Society

Painting by Mary Augusta Mullikin

PLASTER AND PAINT BRIGHTEN THE ANCIENT ROCK SCULPTURES OF SHIH CHIA FO CAVE

The Yun Kang caves, carved nearly 15 centuries ago by the Wei rulers, honey comb more than a mile of the cliffs of Wu Chou Shan, in Shansi Province. This detail shows a portion of a gilded Buddha carved in a 60-foot-high grotto. Bands of seated Buddhas, flying Apsaras, and flames form his halo. To make these extraordinary paintings the Misses Hotchkis and Mullikin set up their easels in the dim recesses of the cave and used bicycle and storm lanterns for illumination.



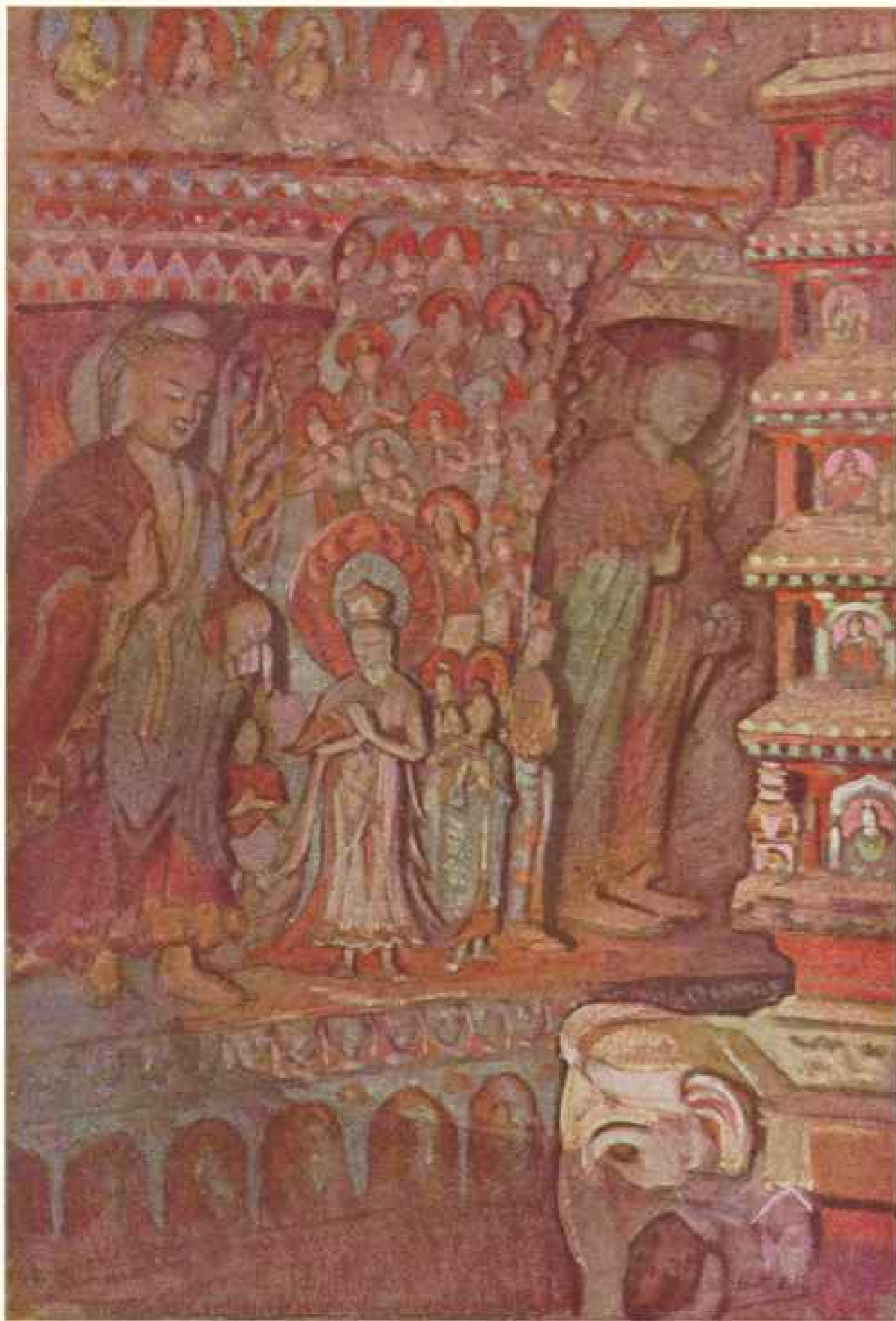
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Painting by Anna M. Hotchkiss

BUDDHA'S HORSE, KANTHAKA, BIDS FAREWELL BY LICKING THE BOOT OF MAITREYA

The Future Buddha, considered the Messiah among devotees, is carved on the embrasure of the Shih Chia Fo cave. In the shadowy recesses of this and other caves, cut from solid rock, are literally hundreds of thousands of figures. Some 30,000 families of conquered artisans labored in the colossal task of hewing out the chambers and sculpturing the walls and central pillars.

BUDDHIST CALM SURVIVES ALONG CHINA'S GREAT WALL



© National Geographic Society

Painting by Anna M. Hotchkiss

WHILE THE HOLY MEDITATE, ELEPHANTS CALMLY SUPPORT PAGODAS ON THEIR BACKS

Youthful figures called Bodhisattvas, twice life size, form a continuous frieze around the walls of Shih Chia Fo. The niche of each is separated by pilasters completely covered with heavenly worshippers. Whenever buildings were portrayed, as on the central shaft of the cave (right), the craftsmen carved Chinese-type structures. The Buddhas reflect Indian influence.



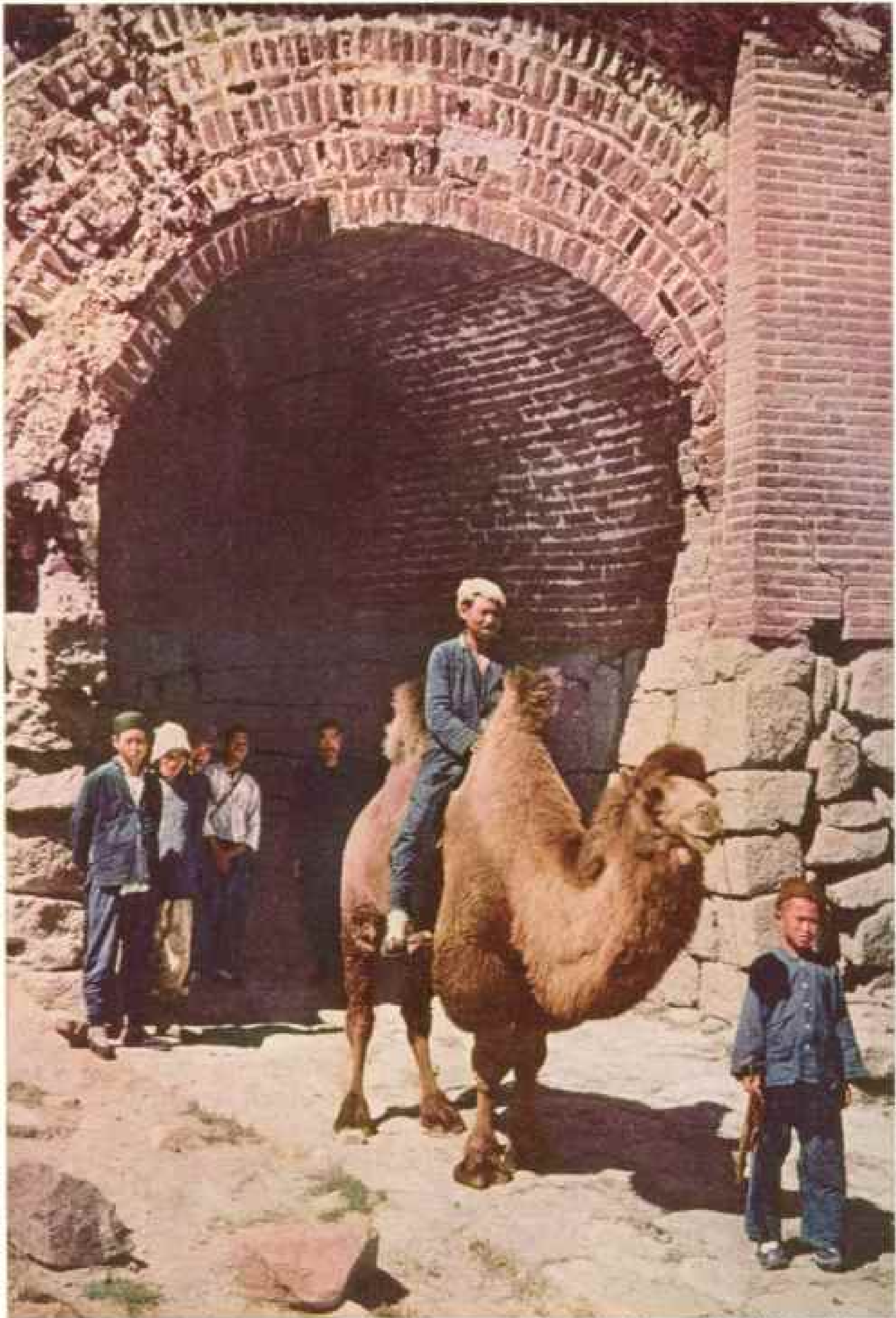
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Painting by Mary Augusta Mullikin

SERENE MANJUSRI, WITH BENT WAND IN HAND, PERSONIFIES WISDOM

Throughout the caves, as on the pilasters at the side, the craftsmen crowded their stone "canvases" with figures. Buddhas and angels vary in height from a few inches to 50 feet. Leaf-shaped halos separate individual figures in the massed carvings. Much of the rock was covered with gesso, or plaster, to fill irregularities and to form a basis for the paint.

BUDDHIST CALM SURVIVES ALONG CHINA'S GREAT WALL

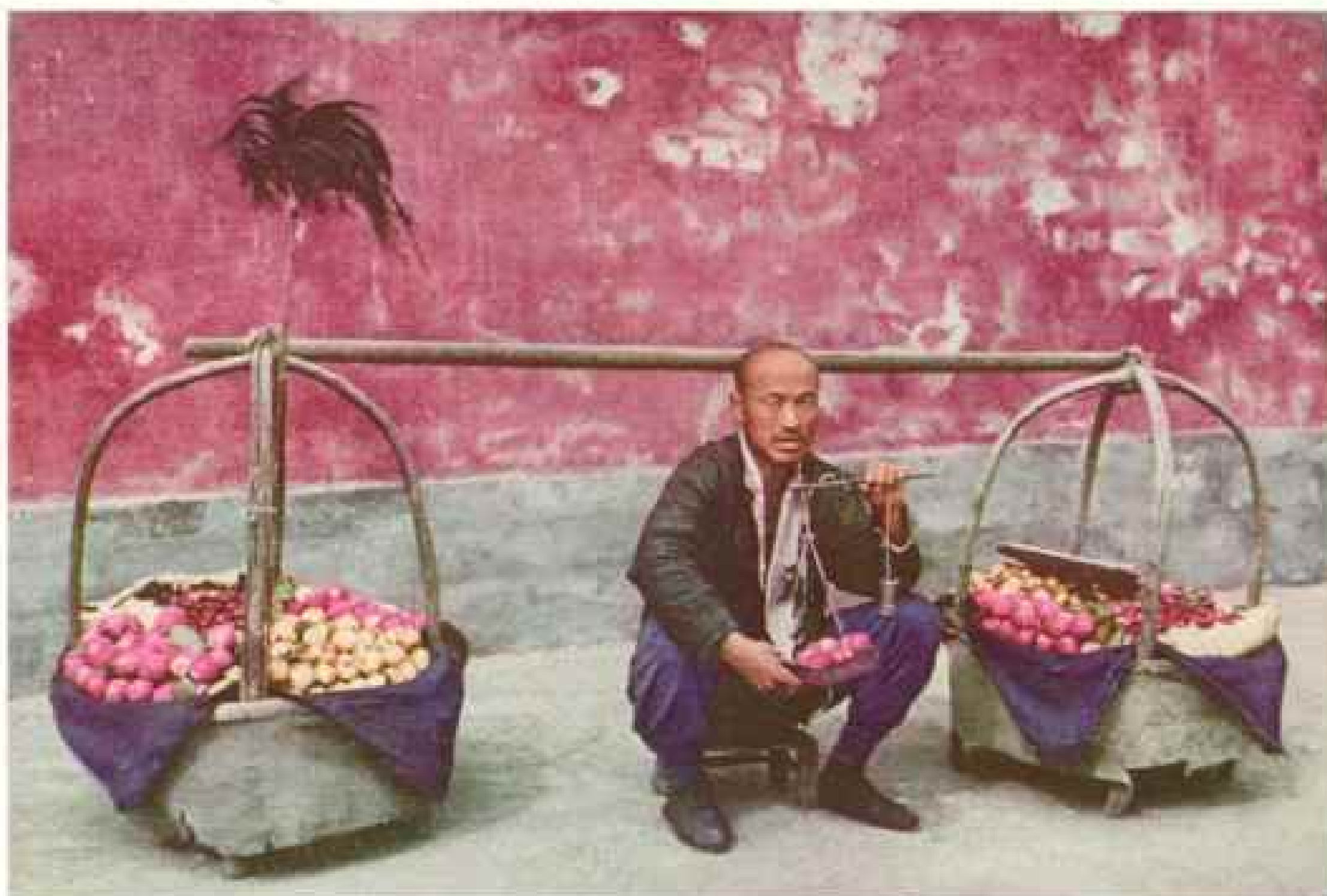


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Exley Photograph by W. Robert Moore

CAMEL CARAVANS OR INVADING ARMIES HAVE PASSED THIS WAY FOR CENTURIES

At Nankow Pass a gateway tunnels that part of the Great Wall which the Ming rulers built in the 16th century. The original earthwork barrier was conceived by Emperor Chin Shih Huang Ti more than 200 years before the birth of Christ, but it failed to stem invasions. Tatars and Manchus swept beyond it. Only a few months ago advancing Japanese soldiers passed this way.



"A POUND OF PEARS, PLEASE; BUT DON'T WEIGH THE THUMB!"

Pears, red persimmons, and other fruits are peddled through the streets and at temple fairs in Peiping. Between sales the vender whisks flies and dust off his wares with the feather duster.



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Finlay Photographs by W. Robert Moore

BUDDHIST PRIESTS AWAIT THE ARRIVAL OF A FUNERAL CORTEGE

They stand in rows inside a temple gateway where services are to be held for a relative of the Manchus, who formerly occupied the Dragon Throne in Peiping. Hundreds of hired mourners, banner bearers, and musicians marched in the mile-long procession.

BUDDHIST CALM SURVIVES ALONG CHINA'S GREAT WALL.



GOSSIP EXPANDS IN THE WARMING WINTER SUNSHINE OUTSIDE A MONGOL YURT. Dressed in their holiday best, these wind-bronzed folk of Inner Mongolia pay a visit on Chinese New Year's Day to the winter camp of Prince Hsi Ssu Nying (Plate VIII).

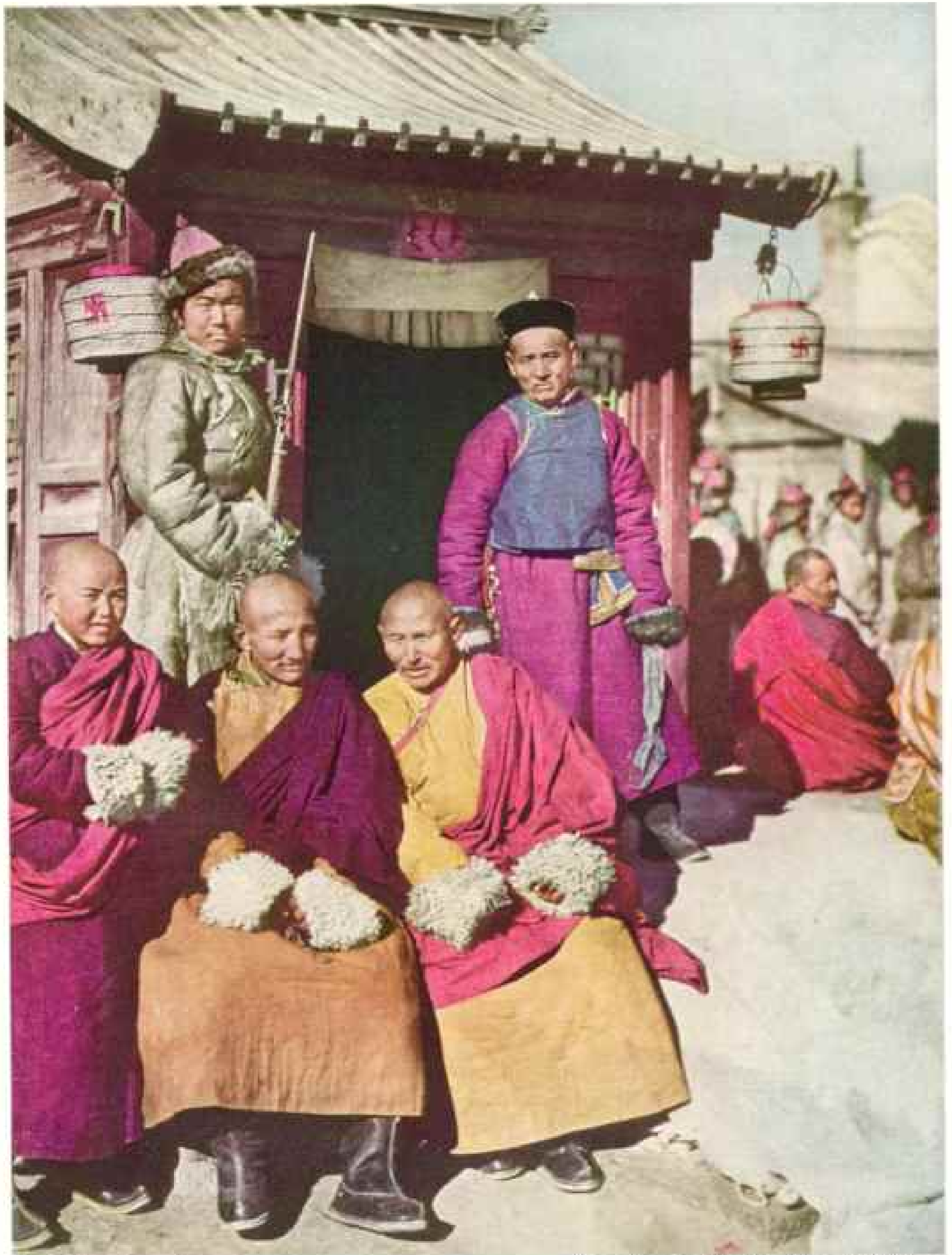


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Finlay Photographs by Maynard Owen Williams

THOUGH PHOTOGRAPHY IS MAGIC, NOVICES STILL "TELL THEIR BEADS"

Looking with considerable uncertainty upon the activities of the cameraman, they pose in the courtyard of the brightly painted lamastery at Peilingmiao. Many Mongol youths take up the reddish-brown robes of the order.



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Finlay Photograph by Maynard Owen Williams

MONKS AND MONGOL GUESTS GATHER TO PAY THEIR NEW YEAR'S RESPECTS

Coming in from the arid wind-swept plains of Mongolia, they have assembled at the winter encampment of Prince Hsi Ssu Nying to be received by the Panchen Lama on Chinese New Year. This religious leader, peer of the Dalai Lama, died in exile at Jyekundo, western China, last November. The wooden structure, guarded by the soldier, forms only the vestibule to a large and cozy felt yurt.

by their differences of style and thought to a wholesome rivalry.

One can imagine royal visits of inspection from the neighboring capital city; and opening ceremonies, as recorded in a rare surviving inscription, dated A. D. 483. The friezes of donors, to be developed later at Lung Men into rich pictures of men and women in elaborate and voluminous dress, are here but slightly sketched; yet they give us a hint of a ceremonious life.

From the highroad one approaches the caves through the usual series of temple gates and courtyards, now largely given over to secular purposes. Not only are the police headquarters established in one court, but also the village school makes itself at home in side buildings before the Shih Chia Fo cave. In this chief court stand a huge bronze incense urn of the Ming era and two bizarre but handsome guardian lions in green and yellow tile (page 319).

Daily the young schoolmaster mustered forth his line of small lads to sing a haphazard version of the new national anthem, where formerly chants in praise of Buddha echoed from the walls of stone. The spirits of the past are more dominating than the life of the present, and one soon forgets both the permanent residents and the transient worshipers, and thinks only of the sculptured gods.

FAÇADES COVER THREE ENTRANCES

Built over the openings of the first three large caves are wooden façades, differing only by their height from the usual temple architecture of China. They are composed of open porticoes in several stories, each roofed with turquoise-blue glazed tiles of a depth of coloring peculiar to the Ming dynasty, at which time the present structures were probably built (page 316).

Mortise holes in the cliff show that seven other caves were once similarly covered. These beautiful façades, which serve as a protection from the weather, seriously darken the interior of the caves.

The first large cave is called O Mi To Fo, the Chinese version of Amitabha, the "Buddha of Boundless Light." His colossal gilded figure is carved "in the round" out of the central core of rock, which has been left as a support to the ceiling, while relief sculptures cover the walls.

From the point of view of art, the finest specimen of work is on the outer wall of

this cave, between the second and third porticoes, in such a position that one must either look up to it between the gallery woodwork, or down upon it through clefts in the upper portico.

The figure is that of a monk whose face has a rare expression of absorbed thought as he sits in repose among sculptured clouds. We called him "the oriental Holbein" because of the sensitive truthfulness of the characterization.

SHIH CHIA FO CAVE MOST ELABORATE

The next and most important cave is that of Shih Chia Fo, which is the Chinese rendering of Sakya Buddha, the clan name and religious title of the historic Gautama. The cave is enormous, but I find no record of its having been accurately measured. A composite of my own and others' ideas of its size would suggest a floor space 40 feet square and a height of 60 feet.

As in all the large caves, the light comes only from a large door on the ground level and a large window, which I call clerestory, above (page 331). A shaft or core of the original rock, left in the center as a support, extends between floor and ceiling.

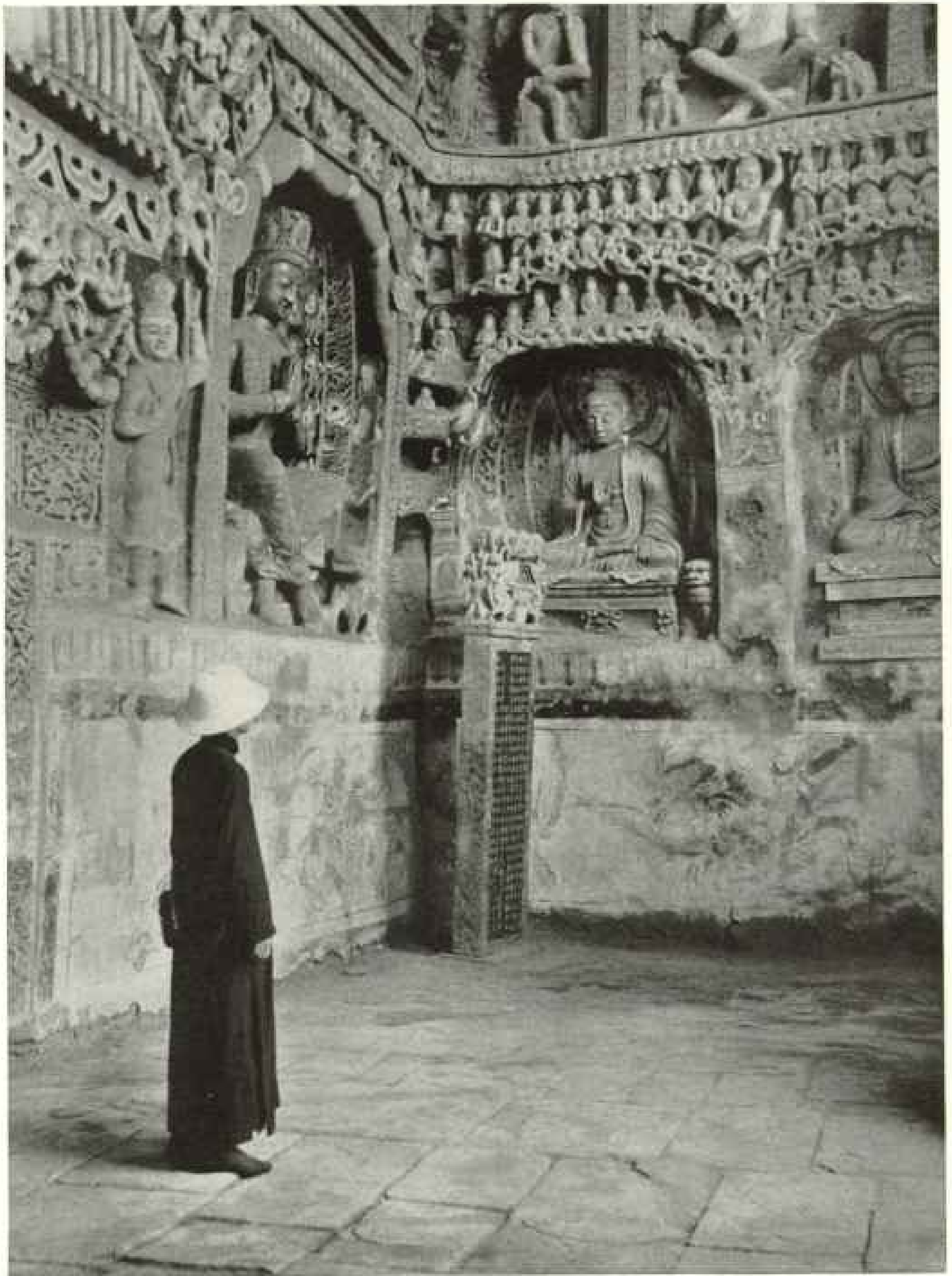
Around the central shaft worshipers doubtless performed the sacred rite of circumambulation, the shaft seeming to embody the idea of a stupa, or reliquary.

On entering the Shih Chia Fo cave, one sees immediately the great figure of Sakya-muni Buddha carved from the rock of the core shaft, and similar Buddhas occupy the other sides of the shaft in the darkness of the cave. This form is gilded and is surrounded by an enormous halo of flames and floating "Apsarases" (Plate I).

These oriental angels manage to fly airily without wings, their long draperies twisting into "fish-tail" folds, which make them look to our Western eyes like mermaids.

They are repeated again and again in the Yun Kang caves, and are a notable element in the Wei style of art. They carry offerings in their hands, probably bags of jewels, the symbol of spiritual gifts. Like the flames of the halo, they are the aura of Buddha, emanations of his great spirit.

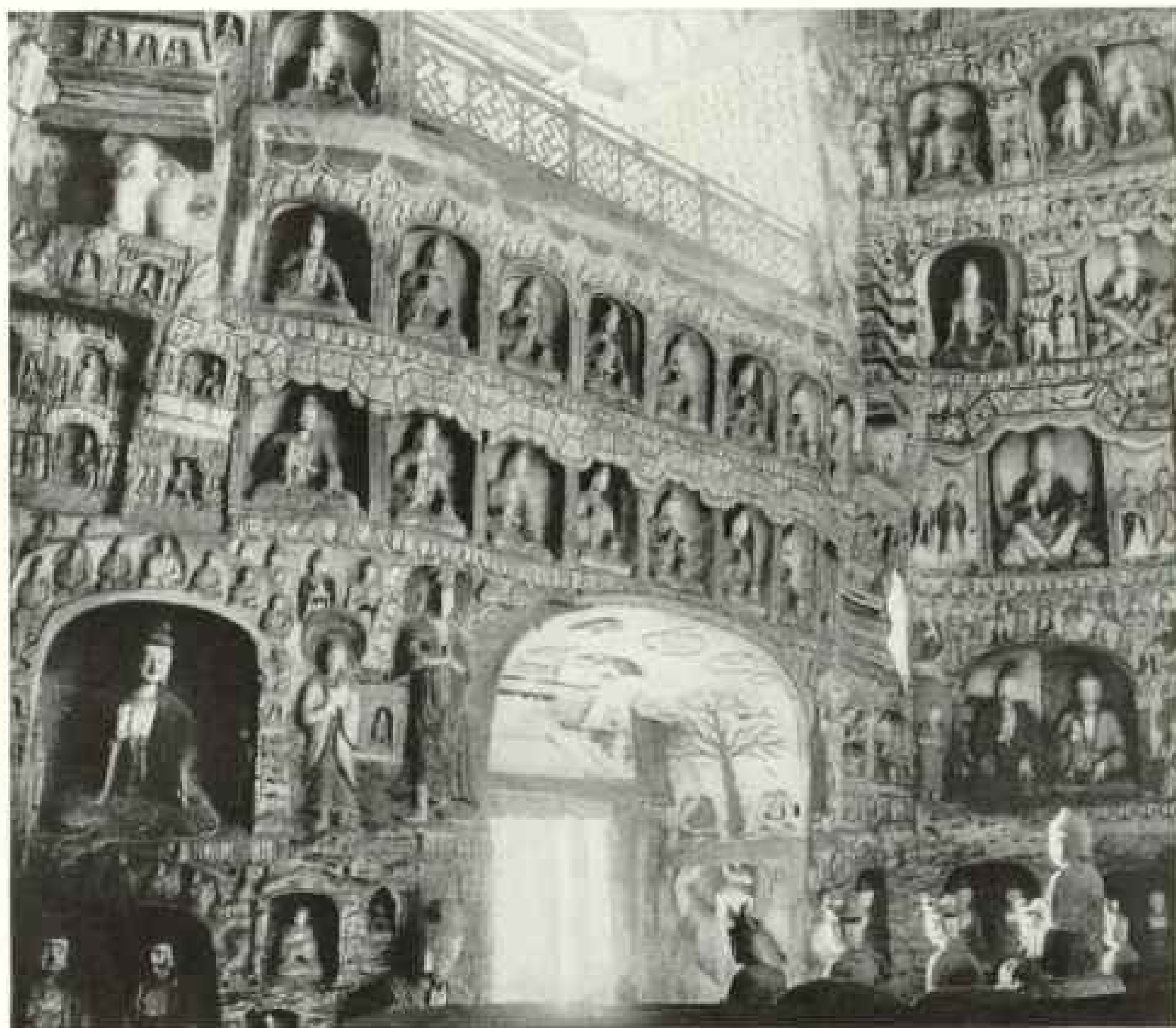
Beyond the halo are rows of standing or kneeling adorers, each with a leaf-shaped halo. Examples of this type of halo are frequent in early Buddhist art, in India, and later in the early Buddhist sculptures of Korea and Japan. Unlike the saints of Christian story, these adorers have never



Photograph by Gilbert Grosvenor.

"THE STONES THEMSELVES ARE ELEVATED TO THE RANK OF BUDDHAS"

Thus has a Chinese poet described the elaborately sculptured caves. Within niches and on central pillars that support the roofs of the hand-hewn grottoes Buddhas sit or stand in peaceful meditation. All about them are portrayed countless saints and devotees.



© H. Iwata, courtesy Mrs. Anne Archbold

HERE CHISELS RUNG IN A CHORUS OF PRAISE

Yun Kang is the center of an extended path of Buddhist influence which stretched from India to Japan. Above the doorway is a clerestory window, designed to allow light to enter the deep recesses. The figures at lower right are seated in front of the cave's central core, which supports the ceiling and serves as a foundation for a group of large sculptures (page 329).

lived the life of man on earth. They are the star dust of the spiritual universe.

BUDDHA'S BIOGRAPHY IN ROCK

On the darkest wall of the ground floor, to right and left of the entrance, is a magnificent band of relief sculpture, picturing the supposed life story of the historic Buddha. Contending with darkness in making our studies from this frieze, we concocted an arrangement of bicycle and storm lanterns, while we sat on an altar table in order to be upon the same level.

Since this is the only example in China of Buddha's biography in sculptured form, the series has historic renown in addition to the recognized powerful simplicity of its art. It is in no sense a copy of the earlier Indian versions of the subject. Some parts

of the frieze may have weathered away in these 15 centuries, but several sections are easily traceable.

In "Buddha Encountering a Beggar" the young prince, hitherto carefully sheltered in his father's palace, rides forth and first perceives the sorrows of the world. The palace is suggested by a single building, doubtless a gate, in definitely Chinese style, as is true of all architecture represented at Yun Kang. Buddha rides his horse while a ceremonial umbrella is carried above him.

In the earlier Indian sculptures of the life of Buddha at Sanchi and Amaravati, the figure of Buddha is always omitted as being too holy to be pictured by mortal hands. There the horse is riderless, the umbrella covers no visible form. The Yun Kang illustrations are more realistic.



© H. Iwata, courtesy Mrs. Anne Archbold

SILENTLY BUDDHA RIDES FROM THE PALACE ON HIS HOLY MISSION

The story of his "Great Renunciation"—the encounter with poverty, disease, and death; the farewell to his sleeping wife; and the departure at night—is told in panels around the walls of Shih Chia Fo cave. The Guardians of the Four Quarters of the Earth lift the horse's hoofs so that no sound will be made.

The panels are separated from one another by a series of scrolls in the rounds of which occur the forms of birds. Byzantine and Romanesque motifs come to mind, though the similarity may be accidental.

Another panel shows the farewell of Buddha to his sleeping wife, Yasodhara. The prince sits pensively on the foot of her bed, in the last moment, perhaps, of hesitation, before he renounces all that is dear to him in this life.

Buddhist legend is kind, for it makes the wife, later, a convert to Buddhism. The son, Rahula, becomes one of the arhats,

or 16 chief disciples of Buddha. Here the wife is shown unconscious of her husband's presence, while her women attendants sleep on the dais below, with their musical instruments in their laps.

A "BIRD-RABBIT"
PUZZLES
SCHOLARS

In one corner stands a strange winged animal, which cannot be identified either as to symbolism or form. It seems to belong to some ancient world and makes one think, for instance, of a legend from the Chinese classics, that Fei Lien, the Count of the Winds, was a bird with a deer's head. The present chimera seems, however, to be compounded of bird and rabbit.

The next panel shows "The Great Renunciation," in which Buddha departs at night

from his father's palace, on his life mission to solve the problem of evil for the benefit of all living creatures. So that no noise should betray his flight, the hoofs of his horse, Kanthaka, are supported by the hands of Guardians of the Four Quarters. They do not waft the horse by miracle, but carry him by muscular strength.

Faintly seen in the semi-darkness of the cave, these great works are "shadows on the rock"; yet our concrete Western minds find in them a human meaning more personal and more easily understood than the philosophy of reincarnations in immeasur-

able eons, and final extinction in Nirvana.

It must be borne in mind that the construction is not like a monument, but an evocation from the rock, following its irregularities of harder and softer strata. In many cases deficiencies in the rock have been compensated for by an attached modeling in gesso, a prepared surface of plaster usually used as a ground for painting.

The upper part of the cave is reached by steep wooden stairs in the portico. The clerestory windows light, with vague shafts, the central core and surrounding walls. The core is reached at this level by a narrow, dizzy bridge.

On the core itself a ledge has been left, so that one can circumambulate at the feet of four colossal Buddhas, standing back to back and supporting the roof on their heads. A frail railing gives one a little security in making the circuit above the dark abyss of the lower part of the cave.

THE CAVE MASTERPIECE

At each corner between the standing Buddhas is a prim Bodhisattva, or Buddhist saint in the final stage before Nirvana, full size, leaning against a pagoda. From this level one may study to advantage the remarkable wall reliefs, gaining a comprehensive view of the whole interior.



© H. Iwata, courtesy Mrs. Anne Archbold

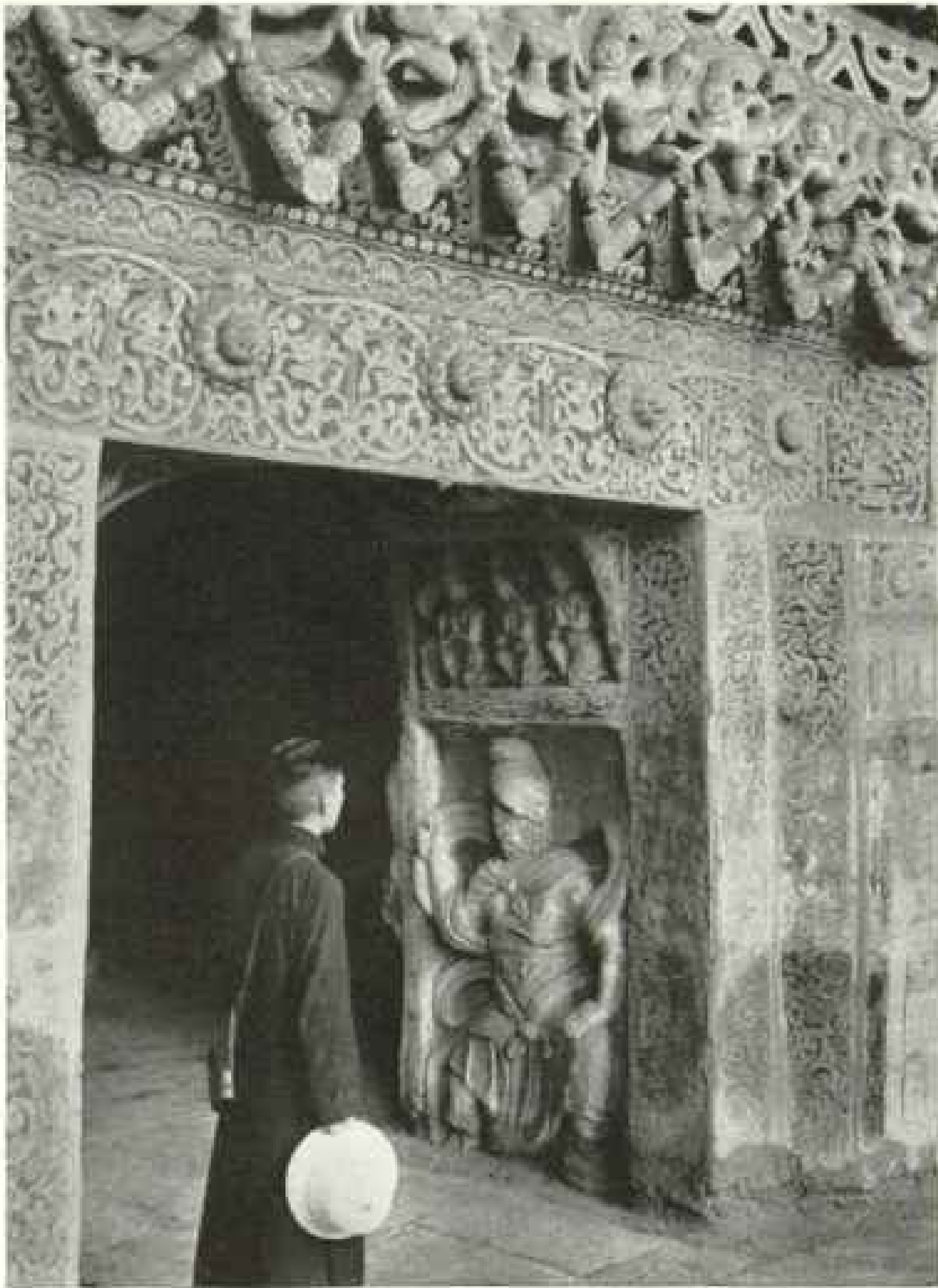
A FIVE-HEADED DIVINITY RIDES AN EAGLE

In the multiple hands of the curly-haired, cherubic-faced figure are clutched the sun and moon, a bow, and a young cock. The broken arm probably held an arrow. This, and a three-headed god on the opposite embrasure of the Fo Lai cave, are the only composite figures found at Yun Kang.

In this cave color has been applied to the sculptures, but it is rich, harmonious, and old. Because of the scaffolding required to reach the upper walls, painting was a costly process, not often undertaken.

For the perfection of its design, the beauty of its sculptures, and its well-preserved condition, the Shih Chia Fo cave takes precedence over all others. The consistency of its plan bespeaks the mastermind of an unknown genius, who may have plotted the whole series of caves.

Bands of varying width fill the space, recalling the difficult problem of covering



Photograph by Gilbert Grosvenor

AROUND DOORS ARTISANS HUNG DELICATE TAPESTRIES OF STONE

Although conventionalized designs are common, in most cases figures of disciples or angel-like Apsarases form the motif of the elaborately chiseled patterns. Lotus blossoms, much used in Buddhist-decoration, appear as bosses on the lintel of this doorway into an inner chamber.

a high, vertical wall as struggled with by the Italian muralists from Giotto to Michelangelo. The topmost band is composed of a series of musical angels, which should be called "Gandharvas," performing upon their instruments with a verve which recalls the work of Melozzo da Forli. They are shown beneath pointed arches, the form doubtless suggested by the petals of the Buddhist lotus.

Next is a band of seated Buddhas whose robes ripple out in a continuous line of

graceful folds. Among these figures are minor decorative human forms adding to the expression of life.

The most pronounced feature of the upper wall is a series of colossal standing Bodhisattvas, each under a sculptured canopy (Plates III, IV). These heavenly creatures have given up the immediate attainment of Nirvana, which would free them from the woeful chain of rebirths, to devote themselves to the salvation of every living creature. They suggest the Christian ideal of self-sacrifice.

WEIRD LIGHT
DEEPENS
MYSTERY

Among them are Manjusri, symbol of wisdom; Ti-tsang, god of the nether world; Kuan Yin, whose feminine incarnation is the Goddess of Mercy. Here

they are represented in simplified planes, calculated to be seen at a distance in the shadowy cave.

Almost moon-like rays of light flicker through from the clerestory windows, changing with the passage of the sun to emphasize now one figure, now another.

They are divided from one another by pilasters which are not of stiff architecture but are a mass of worshiping forms, in particularized and expressive attitudes of adoration, as they turn with zeal toward their

nearest lord. They are vital, gracious, unique. The unity of all great art is here.

Westward of the caves with façades is the Fo Lai, or "Coming Buddha" cave, dedicated to Maitreya, the Buddha of the Future (Plate II), who, after the exhaustion of our present age, is to come as a "Messiah" to save the world and inaugurate a new era. He is that fat, comfortable "Laughing Buddha" familiar in later Chinese art.

Here he looks like a corpulent Bacchus uncomfortably seated on an eagle, if such it is, with plumed tail. He is surrounded by laughing, curly-haired cherubs, which are indeed his own additional heads, for he is also provided with several extra sets of arms (page 333). He is thought

to be derived from the Indian Vishnu. This group and its opposite, Siva Riding on a Bull, both in the embrasure at the entrance to the cave, differ markedly from all other Yun Kang sculptures. They are strongly Indian in characteristics, and largely non-Buddhist.

Beyond the Fo Lai cave are the Wu Ta Tung, or "Five Great Caves" (pages 338-9 and 344), which, if we judge by the mortise holes in the rock, must once have been covered by façades. Their absence allows a flood of light to enter these caves, which



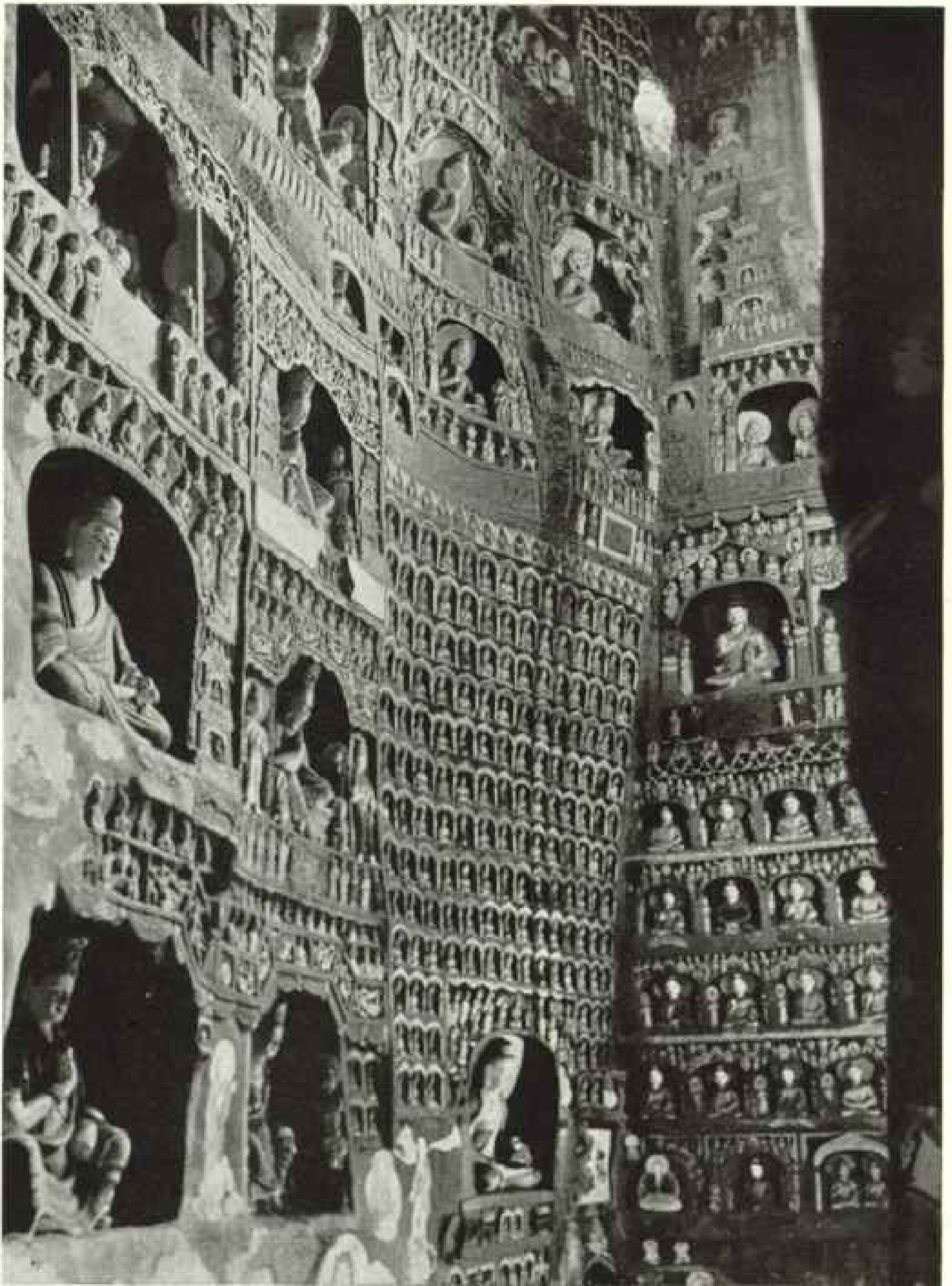
Photograph by Gilbert Grosvenor

AN EXAMPLE OF RECENT RESTORATION

The stone figure in the foreground has been repaired with gesso and painted in bright colors. The writing, mostly illegible, gives names and dates which visitors have scribbled.

have been garnished in modern times with smooth coats of gesso and garish color, thus blurring outlines and shadows. The outer walls, however, have the natural tawny color of the rock, and, unobscured by porticoes, their sculptures can be studied to advantage.

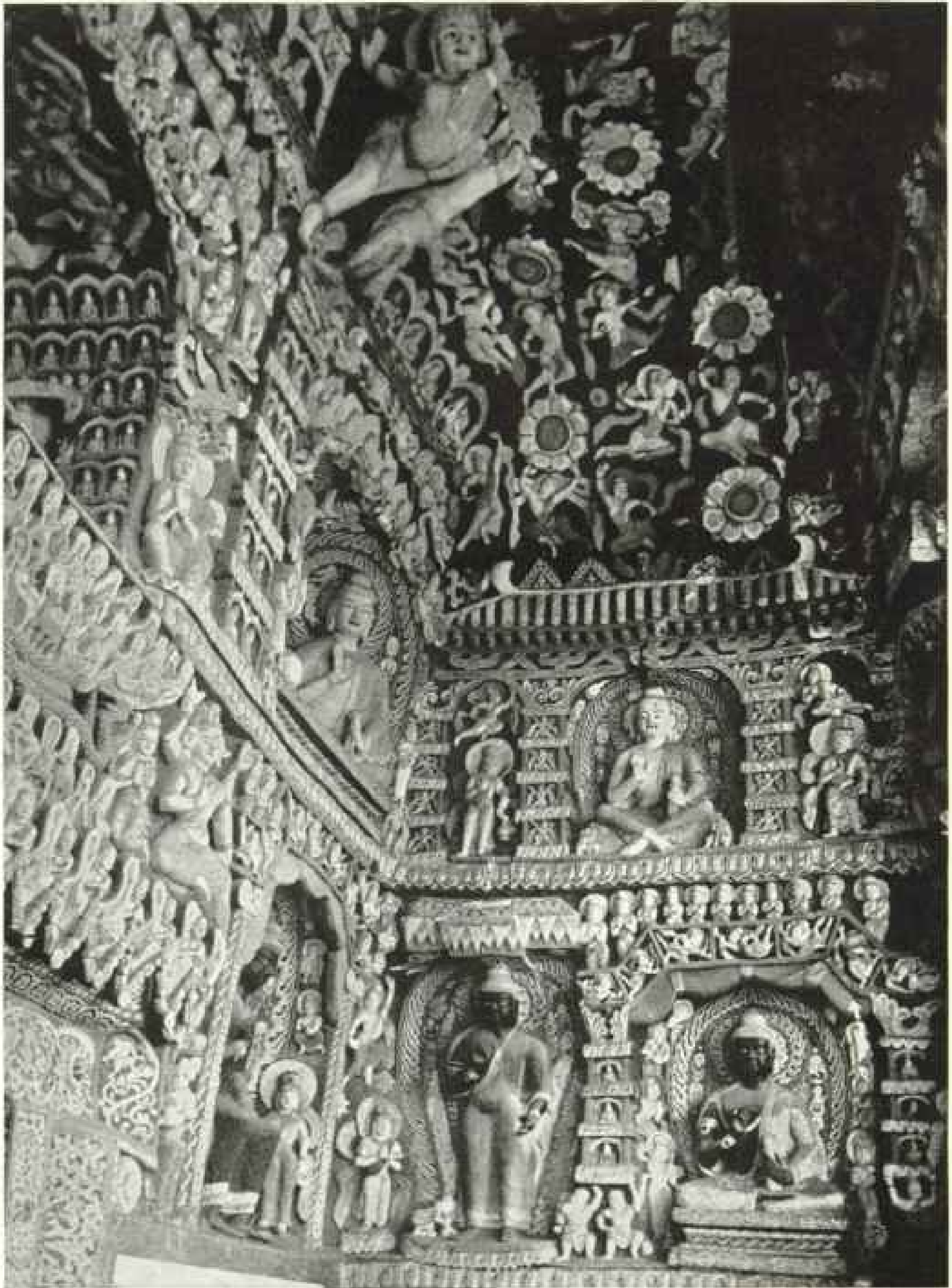
Above the door of each cave and below the clerestory window a Buddha with attendants sits in a niche. Some of the latter wear the costume of the Wei period, with voluminous skirts in well-arranged plaits, with a collarette projecting over the shoulder in points and held in place by bands



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AS IF AT THE OPERA, TIER UPON TIER, FIGURES GAZE DOWN FROM THEIR NICHES

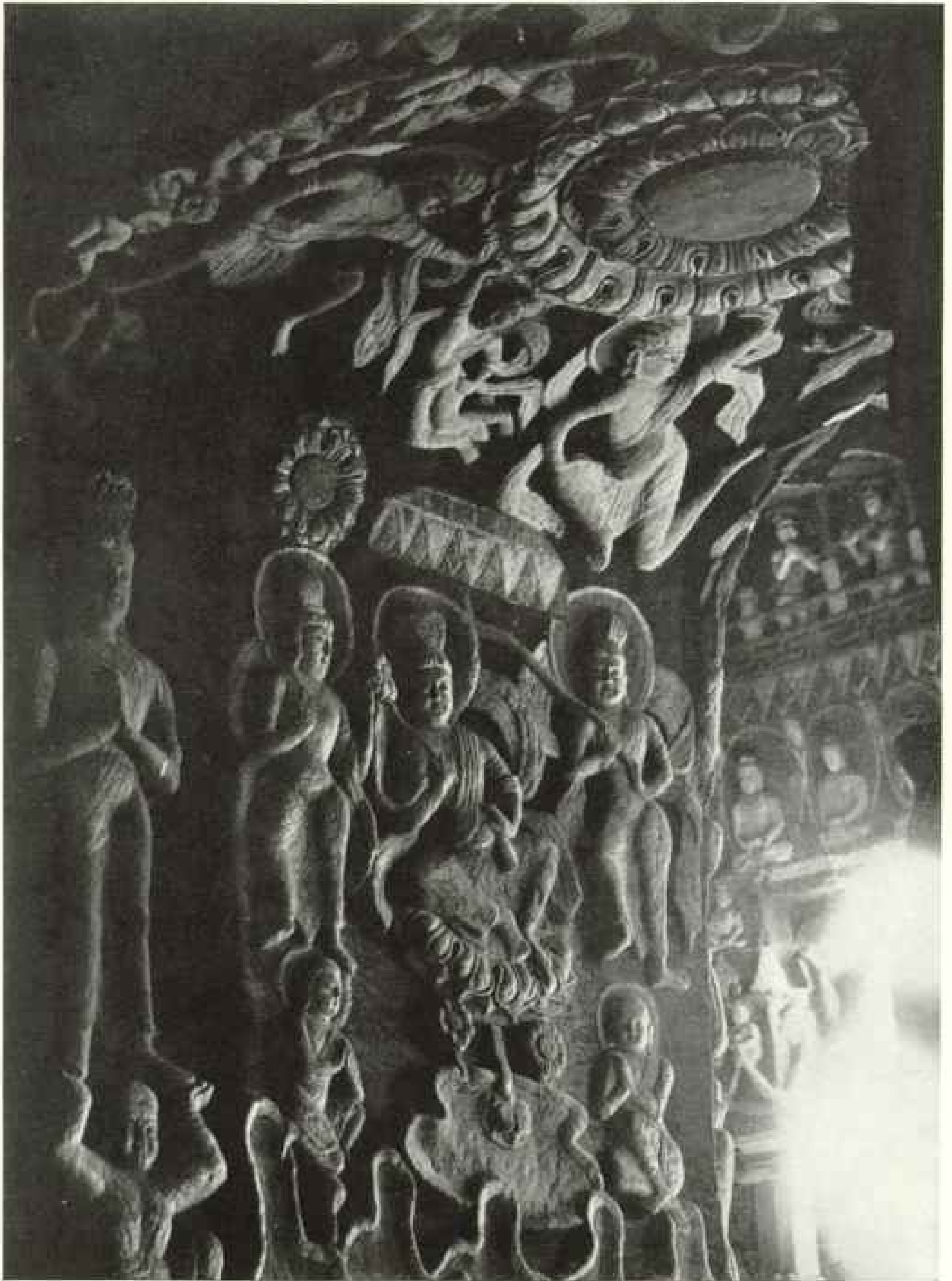
Buddhas and Bodhisattvas, or chief disciples, occupy elaborately carved "boxes"; lesser figures hold only "balcony" seats. Entering such a cave one might expect to hear the music of some grand chorus or the sing-song chants of devotees at worship.



© H. Iwata, courtesy Mrs. Anne Archbold

"THE ROCK BREAKS FORTH WITH HUMAN FORMS LIKE A TREE WITH LEAVES"

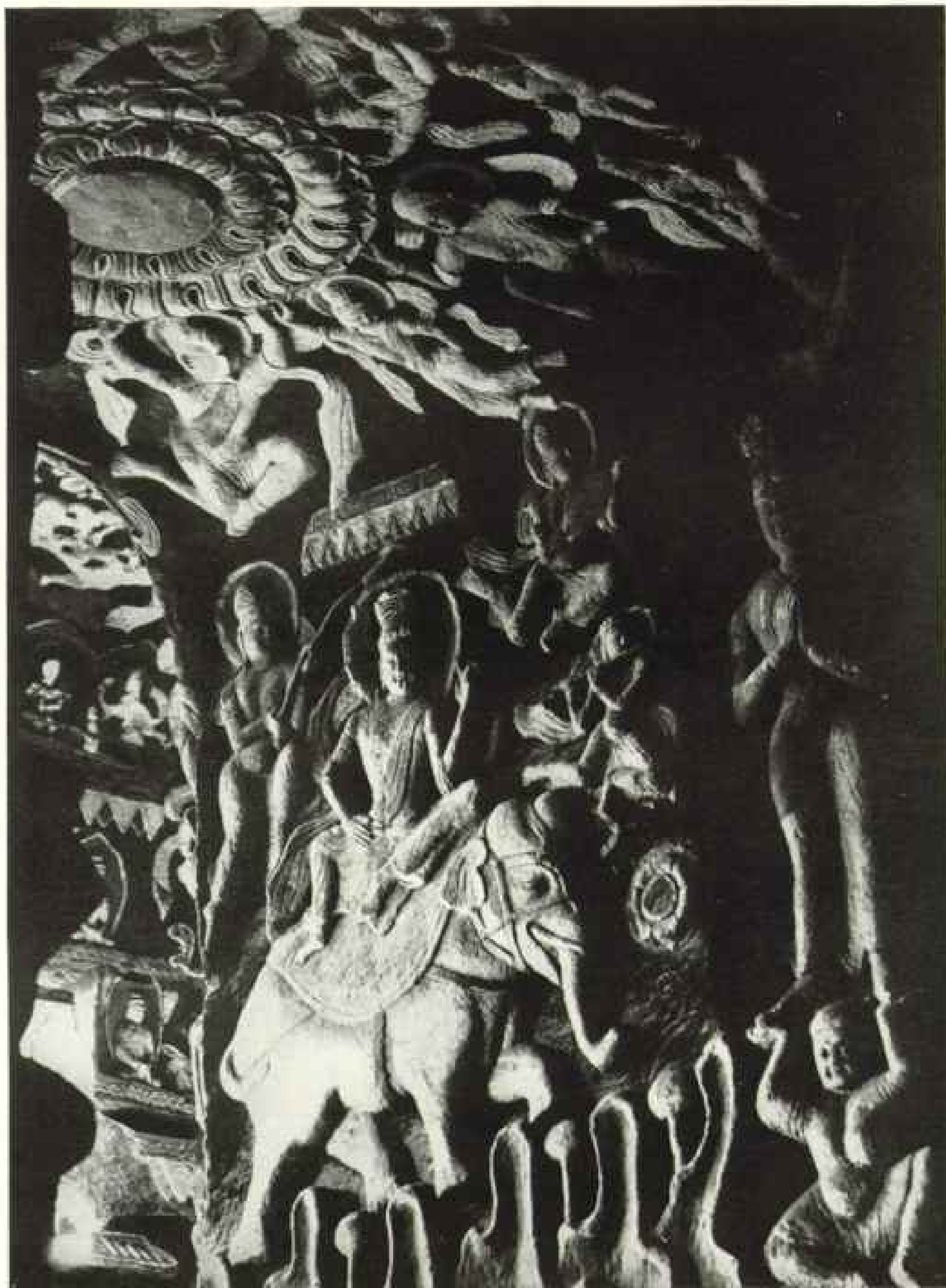
Everywhere cling figures—in alcoves, on pilasters, and even on the ceilings. Despite the superhuman contortions of the statues, sculptors produced a feeling of life and rhythm (page 345). Time-mellowed tones illuminate some of the carvings; others have been redecorated with heavy coats of garish paint.



© H. Iwata, courtesy Mrs. Anne Archibald

SHADED BY A PARASOL, BUDDHA RESTS ON A LOTUS BLOSSOM

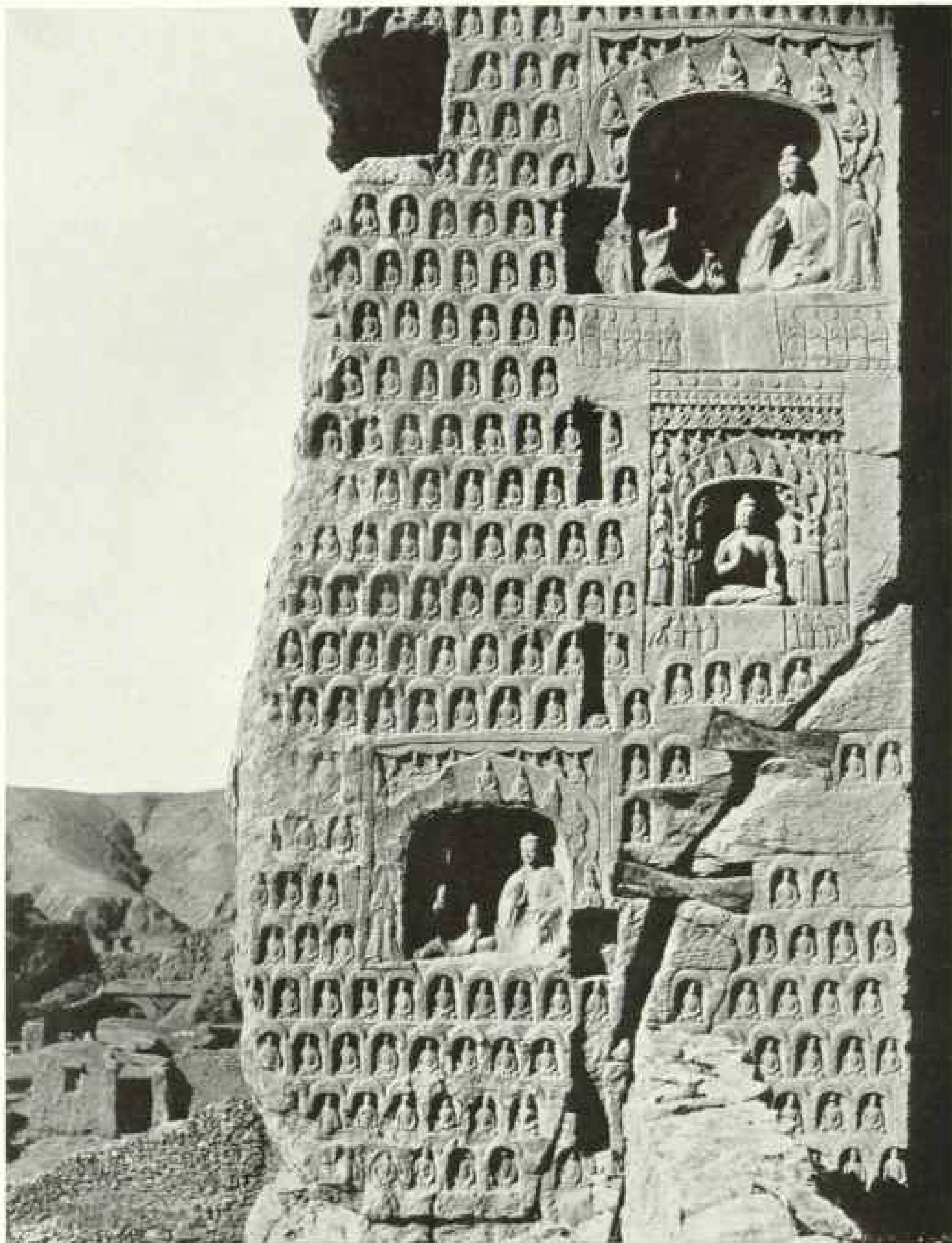
Graceful Apsarases, strikingly active in movement, also support a fully opened bloom on the ceiling of the arched window to an inner chamber (opposite page). To Buddhists the lotus is a symbol of purity, for it springs from mud with undefiled beauty. In expression and pose these figures are more vivacious than those which appear in later religious art in China.



© H. Iwata, courtesy Mrs. Anne Archbold

LIKE A CIRCUS PARADE, ELEPHANTS AMBLE ACROSS CAVE WALLS

Attendants float airily alongside, though they have no wings. Two make music on a flute and a mandolin-like instrument, while another bears a parasol. This sculptured detail and that shown on the opposite page cover the walls of an arched window in one of the Wu Ta Tung, or "Five Great Caves" (page 344). The lotus motif at the top is the same in each.



© H. Iwata, courtesy Mrs. Anne Archhold

LARGE DOUBLE WEDGES STAY HUNDREDS OF BUDDHAS FROM A GREAT FALL.

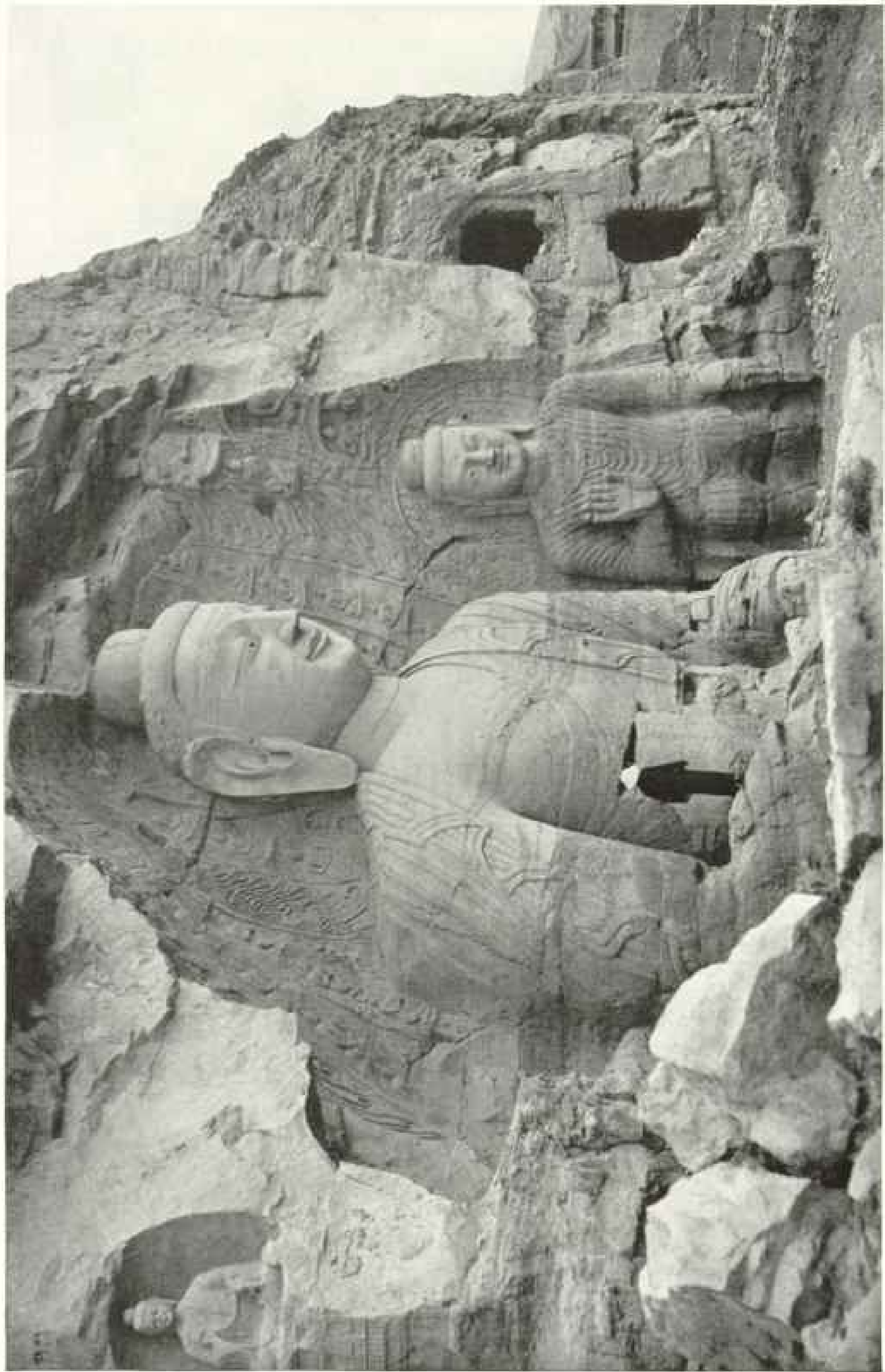
Already a section of the rock, upon which artisans spent countless hours of labor, has become rubble at the base of the cliff. At intervals since the sculptures were hewn, reconstructions have been attempted. In some places the carvings were simply preserved; in others they were covered with gesso and garish paint, so that the original outlines and shadows have been lost.



© H. Iwata, courtesy Mrs. Anne Archibald

THERE ARE 600 FIGURES VISIBLE IN THIS PHOTOGRAPH—COUNT THEM!

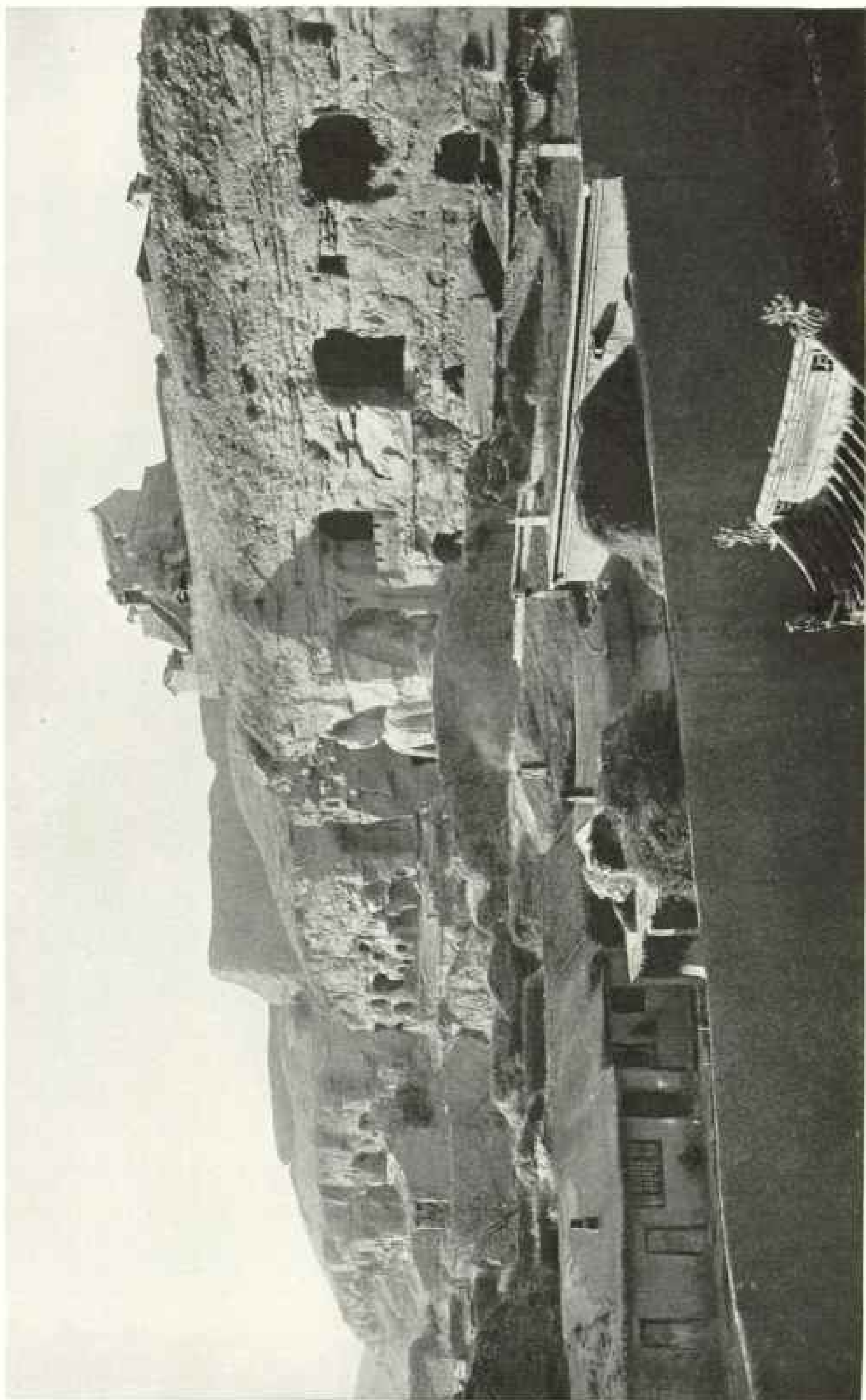
Yet it includes only a small portion of wall area in one of the 30 main caves cut into the rock at Yun Kang. Numerous niches and sculptured groups also decorate the cliff face. Artisans followed the varying strata of the rocks; hence the irregularities of the walls. Several Chinese-type pagodas are seen here. Gilbert Grosvenor, visiting the caves in June, 1937, counted 10,000 small Buddhas on the four walls of a single cave.



Photograph by Gilbert Grosvenor.

CAVE WALLS COLLAPSED ABOUT HIM AND VANDALS STOLE NEIGHBORS' HEADS; YET COLOSSUS REMAINS INTACT

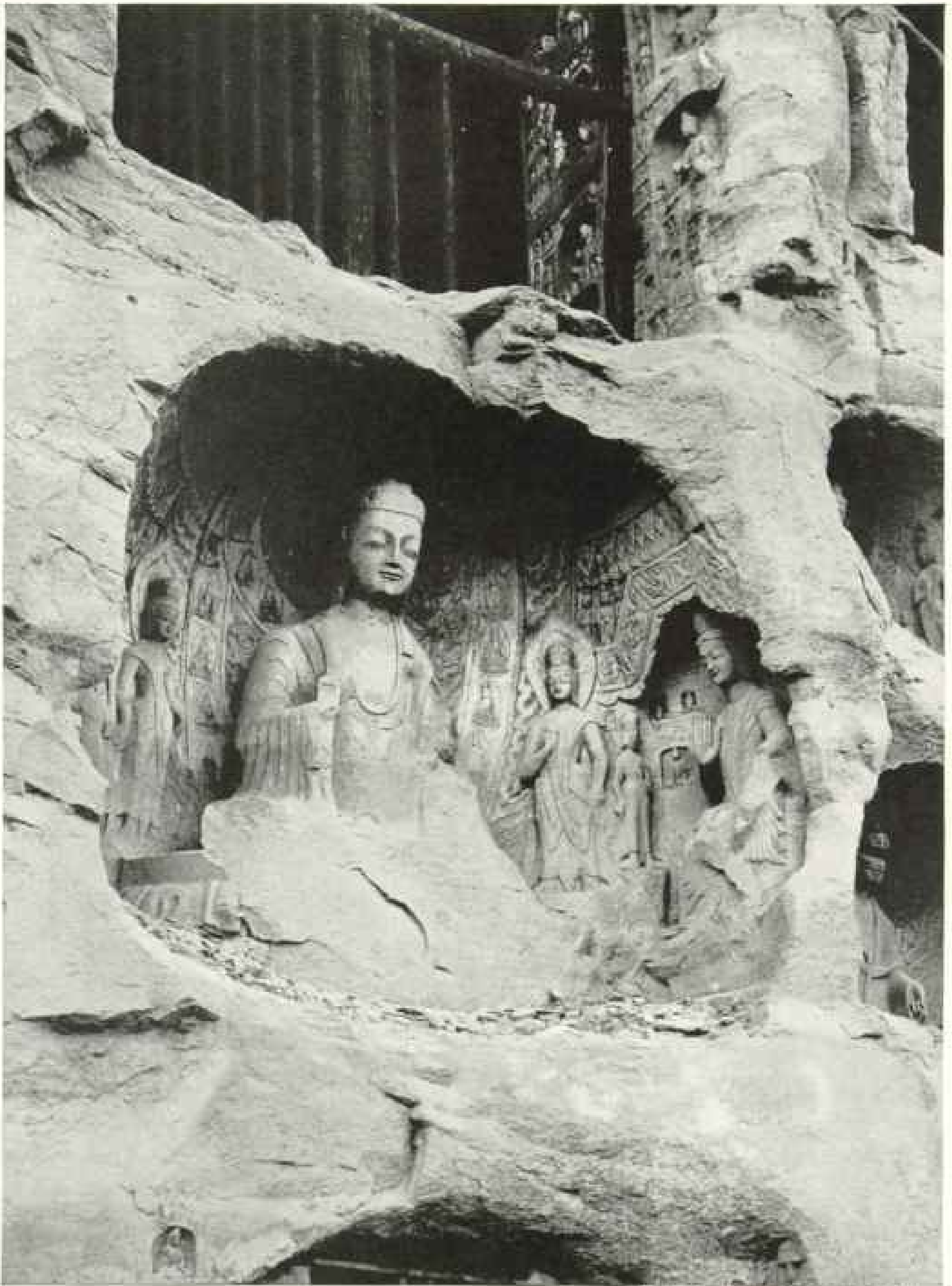
By skillfully drilling holes about the figures and then cleaving them from the walls, thieves have removed many of the finest treasures. This 50-foot representative of Amitabha, however, will hardly suffer beheading to satisfy curio collectors. On some of the smaller carvings the Northern Wei sculptors seemed to have difficulty with the ear and in many places left a flat area, the detail to be supplied by the painters. (page 347).



© H. Iwata, courtesy Mrs. Anan Archbold.

A GIGANTIC BUDDHA LOOKS OUT OVER THE HUMBLE MUD HOUSES OF YUN KANG

At the time of the cutting of the caves more than 30,000 artisan families, brought from the conquered regions of Ton Huang, lived along the base of the hill where the village now stands. So close to the cliff are the houses that access can be gained to some of the caves only by passing through a family courtyard. A temple and one end of a large horseshoe-shaped "spirit wall" stand above this western group of caves (page 320).



© H. Iwata, courtesy Mrs. Anne Archbold

THE ARTIST-AUTHORS NAMED THIS THE "SPIRITUAL BUDDHA"

To them it was the most sublime production in the Yun Kang caves, having features that were "simplified, intellectualized, but not conventionalized." It occupies a niche between the grotto entrance and upper clerestory window of the Wu Ta Tung, or "Five Great Caves." The windows illuminate the faces of colossal figures in the interior, whose eyes seem to "pop out" because of marble-shaped pupils of glazed pottery.

crossing at the waist through a round buckle, and hanging below in a loop. Set-in sleeves cover the arms, giving a tailored effect, in contrast to the loose, baggy, indefinite garments of earlier Chinese sculpture.

Among the outer niches of the Wu Ta Tung is a Buddha of such rare beauty that we spontaneously named it "The Spiritual Buddha" (opposite page). In the more than 2,000 years since Gautama Buddha lived on earth, what figure better portrays his ideal of pity for man and freedom from the lusts of life?

When Dr. Gilbert Grosvenor, President of the National Geographic Society, visited the caves in June, 1937, he counted 10,000 small Buddhas on the four walls of a single cave (page 319).

HUGE BUDDHAS HAVE POTTERY EYES

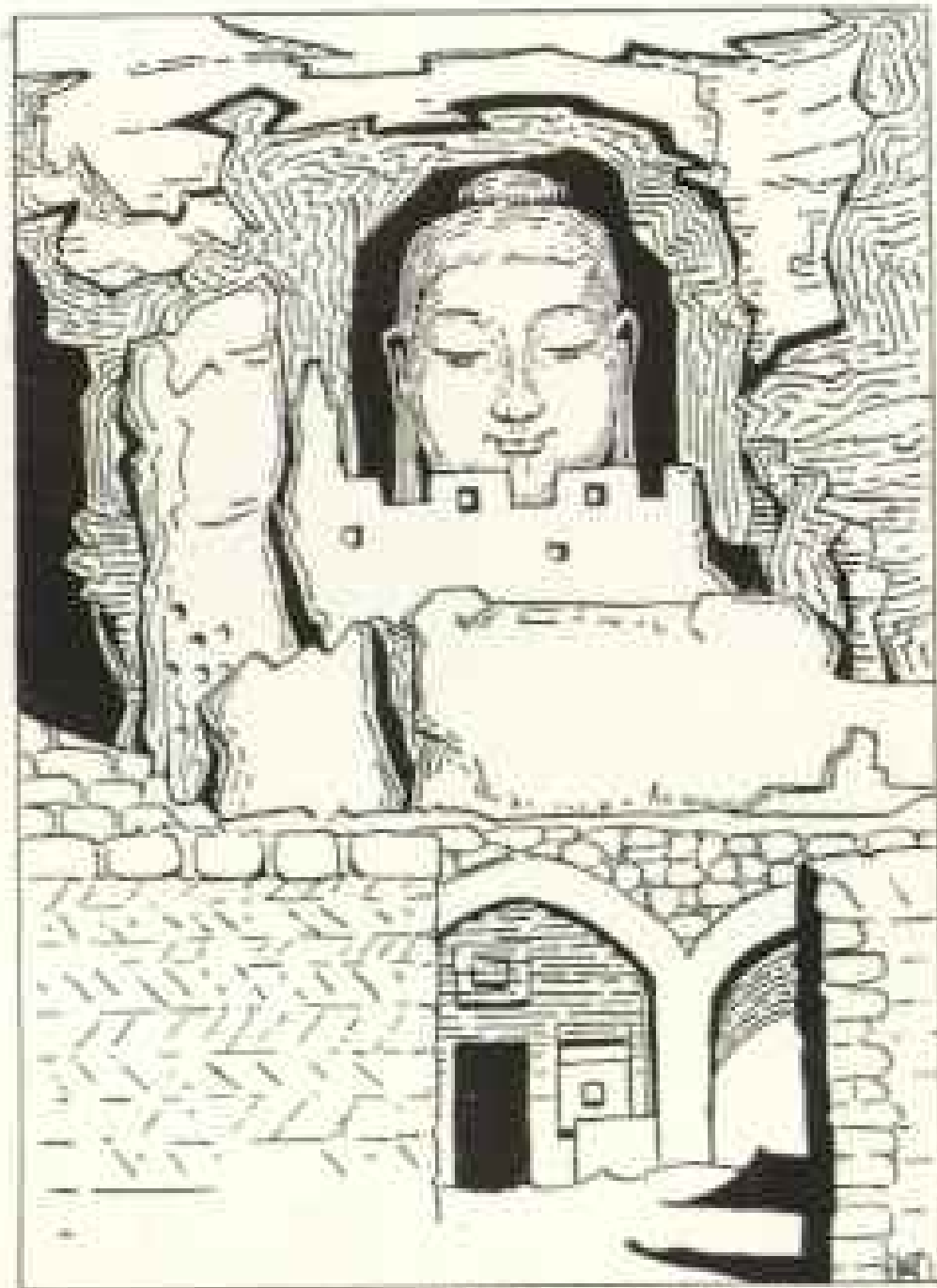
More spectacular are the colossal Buddhas of the Western Caves, beyond a ravine and behind the village of Yun Kang. Cave succeeds cave, large and small, but among them are three of exceptional size. In each sits a god of heroic dimensions, peering forth in unblinking composure through the clerestory window especially arranged to light his face.

In fact, the startling eyes of these huge figures are actually inserted marbles of brown glazed pottery. They must have been an afterthought, perhaps centuries after, for the eyelids have been chipped away to accommodate them, adding still more to the blankly staring expression.

Like most colossal sculpture, these figures have a stiff, unexpressive bulk, and a schematic treatment. The largest is said to be 50 feet high. On the wall behind him is a superbly decorative treatment of the halo in flat relief. The mantle of another colossus is ornately carved to represent a brocade of seated Buddhas.

On the wall behind this figure, in high relief, is the head of Kasyapa, one of the chief immediate followers of Buddha. The body has weathered away, presumably because of some difference in the hardness of the strata. All the more startling is the isolated head, turning with closed eyes and slightly parted lips toward the great Buddha.

It is a unique relic, the features being purely Aryan and the expression that of the ecstatic visionary. It suggests portraiture and recalls the power of the early Flemish and German masters to portray spirituality by their very realism.



Drawing by Anna M. Hochkkk

THE COLOSSAL BUDDHA PEERS FROM HIS CLERESTORY WINDOW

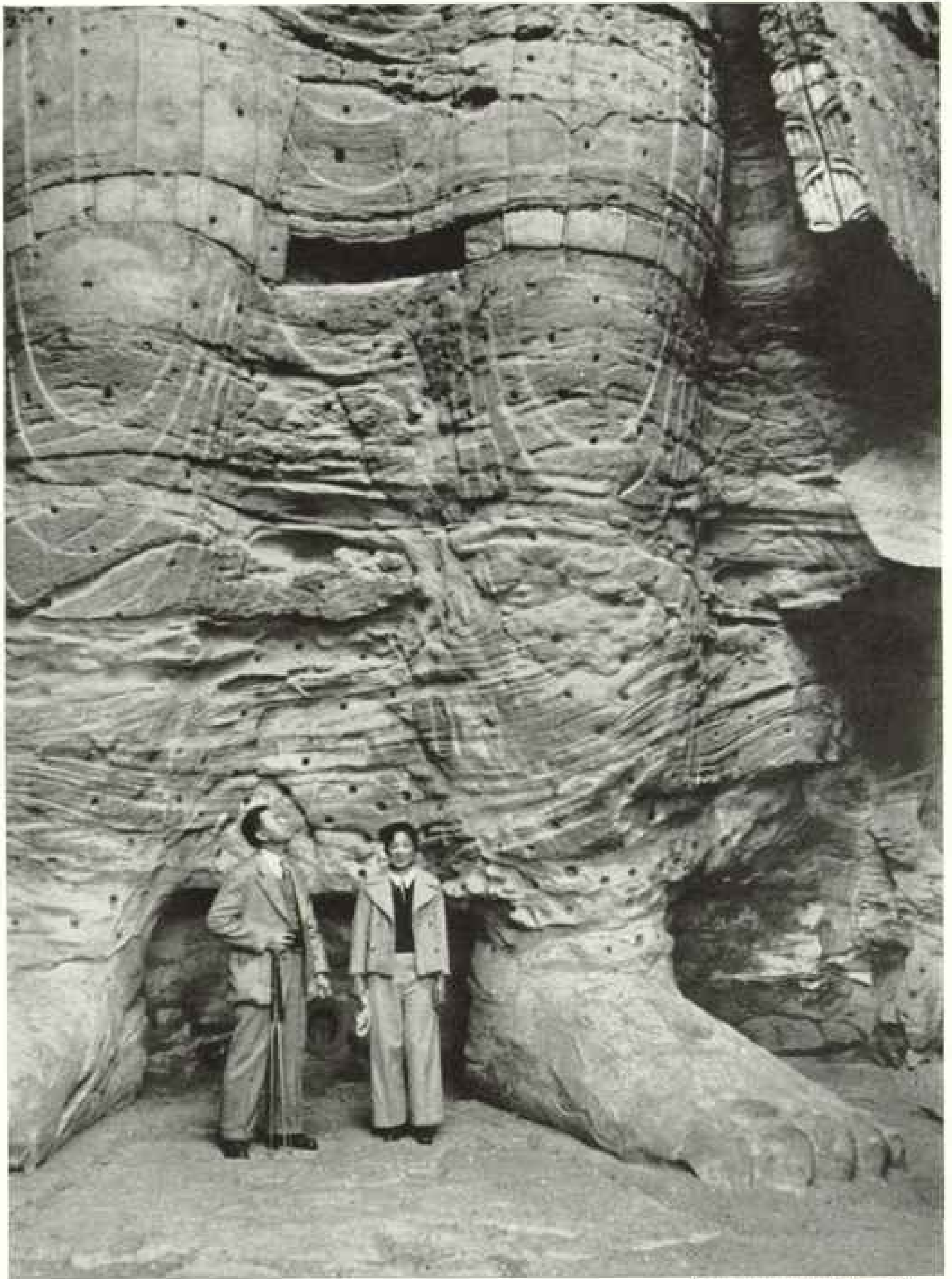
In a startling, bizarre, but impressive manner, as if taking an uncanny interest in the desert traffic which has tramped slowly past for 15 centuries.

The symbolism of Yun Kang art lacks the forms familiar in later Chinese work—the ceremonial umbrella, paired fish, endless knot, fungus, bat, peach, etc. Instead, there are many animals: primitive dragon, birds, elephant, lion, horse, and bull.

Certain frequently repeated forms are recognized as characteristic of Wei art. There is a tenseness and vigor in the figures, although anatomy is ignored and its lack concealed in drapery. The sensuous repose of later work is conspicuously lacking.

The exuberant feeling for life has caused the rock to break forth with human forms like a tree with leaves (page 337). Figures are forced into filling certain spaces. Though they indulge in superhuman contortions, they seem to be alive, with rhythm in their flowing lines.

The variety of facial types suggests the diverse skill and influences brought to the work by sculptors assembled from east and west. There are pattern faces like masks, and others incisively individual like portraits. There are faces reminiscent of archaic Greek art, and others with the high cheekbones and broad mouths of Mongolia.



Photograph by Gilbert Grosvenor

FOR 15 CENTURIES THE WIND HAS COUGED BIG BUDDHA'S ROBES AND ANKLES

Whirling dust acted like a fine sand blast to cut away the gesso covering, once held to the sculptured stone by the round holes which dot the legs. The softer rock stratum also has weathered heavily in many places on the exposed portions of the Yun Kang caves. The Wei sculptors were less successful in portraying the robes draping their colossi than on the smaller figures.



Photograph by Ambassador Nelson Truder Johnson.

SERENELY AMITAYUS MEDITATES, UNMINDFUL OF THE DESTRUCTION ABOUT HIM.

Only one saintly companion survives, his hand raised in the attitude of fearlessness; the others that once surrounded the colossus were crushed to bits with the breaking away of the eroded cliff wall. In Buddhist art, the figures are usually portrayed with unusually long ear lobes. Major General William Crozier, Chief of Ordnance of the U. S. Army during the World War, admires the marvels of another age (page 342).

There are the aristocratic, clear-cut features and high-bridged noses of Aryan India; and others of clearly Chinese type.

There is no luxury of jewelry or ornament. Lacking, too, is the grotesque or demoniac, such as the terrific "Gate Guardians" of later work. There is a beginning of the treatment of draperies, characteristic of the Wei style, in many symmetrical folds with pointed tips like a bird's wing feathers.

These full, extended draperies bring to mind Isaiah's graphic words: "I saw also the Lord sitting upon a throne, high and lifted up, and his train filled the temple."

During our two long visits to Yun Kang, we worked heroically at the finding and depiction of representative examples from the truly numberless wealth of sculptures. We paid "cumshaw" to peasants who had walled in caves for their own use; and we piled stones to climb into otherwise inaccessible niches; we worked in darkness or in the glaring sun, as the case required.

Frankly, we omitted the colossi: first, because it is impossible to see them at a distance and yet see them as a whole; and, second, because they lacked the beauty which charmed us in lesser figures.

VANDALS HAVE DONE SOME DAMAGE

About one of the great Buddhas there is a scene of devastation, for at some unguarded moment sculptures have been stolen, to be sold in the curio market. The outer walls of one large cave have been blasted away, leaving the colossus seated, almost unattended, in the open. Moreover, by this destruction the cliff above has been weakened by huge cracks and clefts, which will hasten weathering processes (p. 342).

On the ground may be seen remnants of figures, drapery, and ornamental reliefs. Too late to save this art intact, a Chinese archeological society has been formed which has listed, numbered, and marked every remaining figure.

Another evidence of the theft of sculptures is in the scientific removal of heads by drilling holes on all sides of them until a line of cleavage neatly breaks the head loose from the wall of rock.

While we were making one painting a sudden storm swept down the valley, a solid wall of advancing dust blotting out the view of even the village near by. It was the desert itself moving forward, leaving a new coating of dust upon these sculptures, and illustrating the erosive processes which have been at work for these many centuries.

We had two reminders that the subject of theft is a live issue. On our second visit we found that the priest was in jail and that the policemen had been changed on charges of complicity in theft. We came under suspicion on a day when a large group of all too patriotic students arrived to visit the famous caves. They dogged our steps, pestered us with questions, invaded our rooms, and exhausted our patience.

In retaliation for our momentary loss of temper they reported to the police of Tantung that we were making drawings so that curio dealers might know which sculptures to steal next! The result was that we received an order from the city police to go immediately.

This would have been heartbreaking, with our work unfinished, but on the advice of the local police, who were friendly, we sent our servant to Tantung, where our host at the Anglican mission made himself responsible for our good behavior and gained us permission to finish our work.

During the day and night of suspense while our servant was away, a troop of 500 soldiers, changing barracks, rested at Yun Kang and devoted their entire attention to us. We fastened ourselves in our rooms, barricading the doors; but they pulled the paper from the windows, and a succession of eyes was constantly upon us. They shouted to us and talked about us, and our only defense was to practice Buddhistic repose so that they should have as little as possible to remark upon. The nerve-racking episode lasted from two to eight o'clock, when they were called off by a bugle.

Beyond the farthest west cave, the cliff ends at a bend of the river and on its last abutment are the remains of Feng Yuhsiang's elaborate fortifications used in his battles of 1929. If one returns by walking along the margin of the river, one sees the cliff as a whole, extending for more than a mile like a rampart of stone, perforated with countless openings, large and small.

Tides of traffic, armies at war have gone by, while the great, calm Buddhas have gazed impassively from the windows of their dark caves. It is possible to climb the cliffs above the caves, where an enormous spirit wall of adobe extends its arms to shelter the sacred place from roaming spirits. In the center above the cliff stands a small modern temple. The tremendous undertaking looms powerful and strange. How many generations have lived their lives in its presence?

Hong Kong—Britain's Far-flung Outpost In China



Photograph by Maynard Owen Williams

DEFTLY MANEUVERING THEIR SMALL CRAFT ALONGSIDE, BEGGARS BESIEGE A LINER IN HONG KONG HARBOR

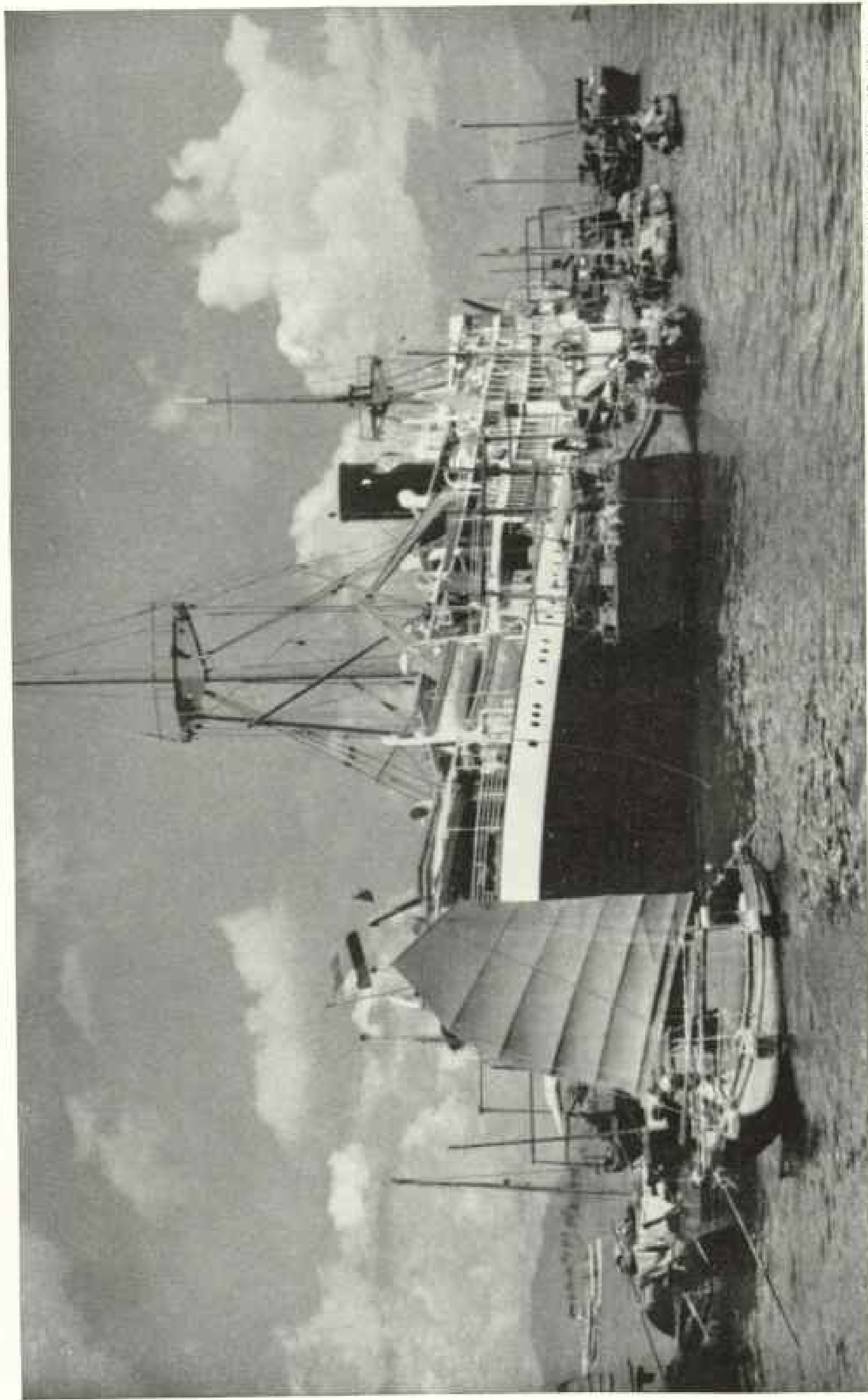
Long poles with nets are poked hopefully toward likely passengers lining the rails. The ship has just pulled out from suburban Kowloon (left), on the Chinese mainland, opposite the island on which the modern city lies (page 360). When ceded to England less than a century ago, this small area off the southeast coast of China was the haunt of pirates. Today it is one of the world's greatest seaports and the gateway for the heavy trade that moves to and from inland Canton, 50 miles to the northwest, and other South China river ports.



© Sutton Traveler; from Gentlemen

HONG KONG, ASTIDE THE HIGHWAY OF WORLD TRADE, HARBOR SHIPS OF ALL NATIONS

Atop Victoria Peak, a Chinese girl overlooks city, bay, and distant mainland. Last September the peaceful harbor was thrown into violent turmoil by a devastating typhoon which killed hundreds and blew ocean liners ashore. One large ship piled up on the water front in the Central District (foreground). The million inhabitants of the Colony, including Kowloon and New Territories, were panic-stricken for hours. Hundreds of sampans and junks, forewarned, took shelter in Causeway Bay (right).



© Screen Traveller, Inun Genitarau

SCORES OF SAMPANS AND JUNKS SWARM ABOUT A SHIP FLYING THE RED, WHITE, AND BLU FLAG OF THE NETHERLANDS

Ocean liners cannot go up Canton River to Canton and other booming ports. Therefore, Hong Kong has become a reshipping point for that vast area's trade with the outer world. A large British fleet is stationed at this strategic center, between Tokyo, 1,800 miles to the northeast, and the naval base at Singapore, 1,675 miles to the southwest.



© Screen Traveler, from Grimbrain

COTTON IS KING ALONG ONE THOROUGHFARE IN THE CHINESE SHOPPING QUARTER

Most of this cloth, the street's exclusive stock, is imported from Manchester, England, and Japan. The Colony is almost entirely dependent upon imports for its finished goods. The women in the center, garbed in blouses and trousers, cling to the old mode, while the other wear the graceful one-piece garment, popular in recent years.



WHAT WILL BE THE HEADLINES WHEN BABY IS A MAN?



Photographs © Screen Weaver, from Gamblin
"CAT'S CRADLE" MYSTIFIES AT LEAST ONE OF THIS TRIO



SUBTROPICAL FLOWERS IN GLAMOROUS VARIETY FILL THIS FAMOUS MARKET

Sellers occupy stalls in Wyndham Street, close to the tall, modern buildings of the European business center. The Chinese girl is dressed in modern attire; the coolie passing her is interested chiefly in keeping cool.



Photographs © Sieben Triveler, from *Geography*

HONG KONG MENDING WOMEN SEW BUTTONS ON WHILE YOU WAIT

Using a busy sidewalk for their shop, and bringing baby along if he can't be left at home, many Chinese earn a livelihood repairing clothing for passers by. These have a complete supply of equipment at their side.



© Screen Traveler, from Gendreau

IN THE HEART OF HONG KONG STANDS A MONUMENT TO BRITISH FINANCE IN ASIA

Dwarfing the statue of Queen Victoria in front of it, the new Hong Kong and Shanghai Bank dominates the bustling water front. Since 1864 this institution has been a leader in foreign financing of government and private enterprises in China. The new building was completed in 1935. Located in the Central District, it is directly opposite the Kowloon Peninsula, also a part of the Crown Colony, on the mainland.



© Screen Traveller, from Cinefranz

MODERN HONG KONG CLIMBS THE SLOPES OF TOWERING HILLS

From the jerryboat plying across to Kowloon, the public buildings are revealed, clustering along the water line to the left of the junk in the foreground. Main thoroughfares run parallel along the hillside, but the intersecting streets are either series of steps or so steep that only foot and sedan-chair traffic can traverse them.



THE MORE STICKS, THE GREATER THE PAY FOR THE COOLIES.

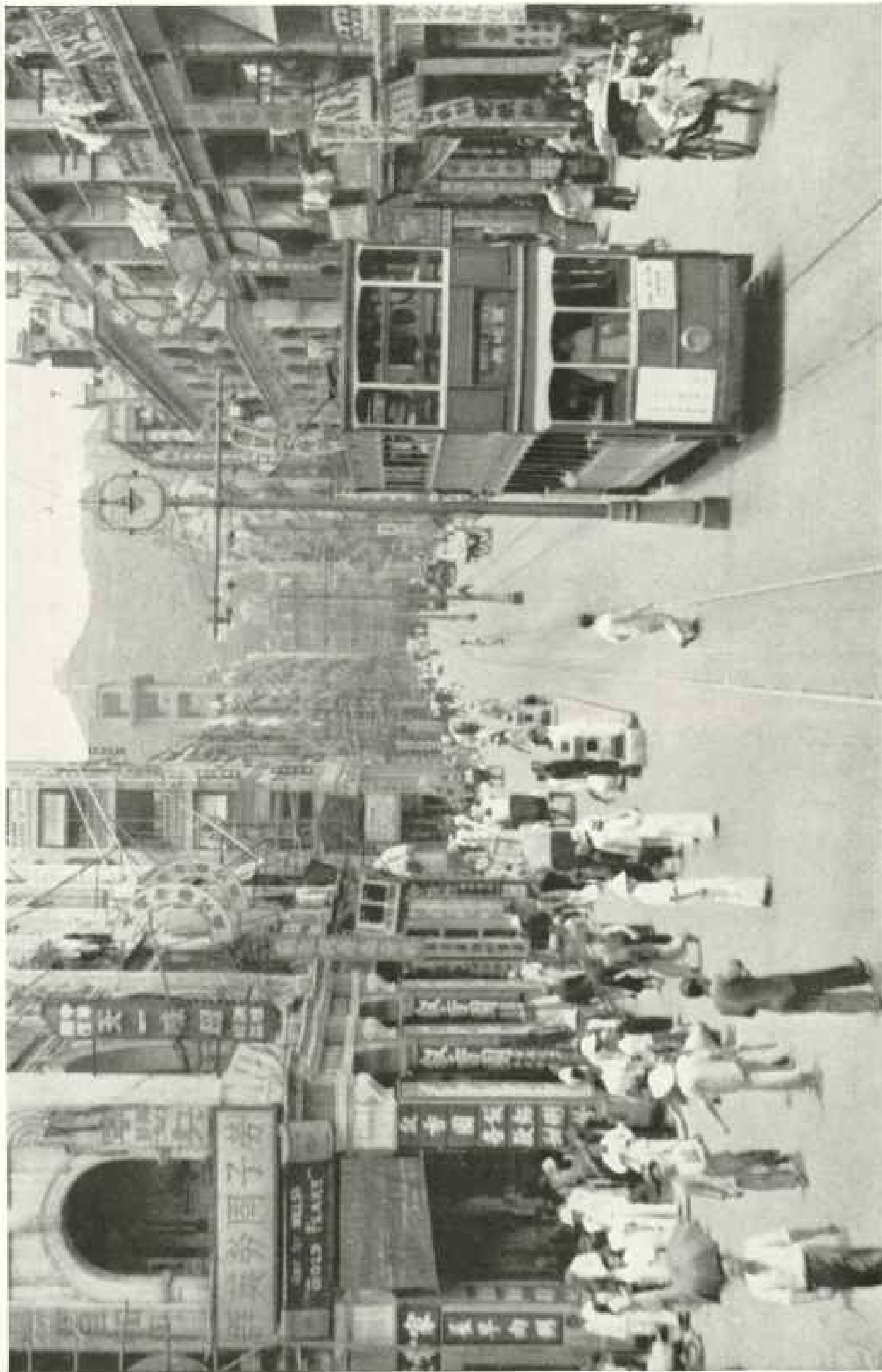
Each Hong Kong porter receives a counter of a certain color when he leaves a junk with a sack of rice. At the close of day, the sticks he has accumulated at the warehouse show how much rice he has delivered and what pay is due.



Photographs by Scam Thavellet, from Geographical

TRUCKS AND SHIPS CAN'T CARRY RICE EVERYWHERE.

Coolies still transport sacks of this grain on their backs. Hong Kong handles 85 per cent of southern China's "staff of life," imports coming principally from French Indo-China. Large quantities are reshipped to the United States.



© Scripps Traveler, from Gensdrecht

YEARS AGO THE CHINESE QUARTER ABSORBED THE "TRAMCAR," BUT THE RICKSHA STILL FLOURISHES IN DES VOIEUX ROAD

Here large department stores sell the latest importations from London, Paris, New York, and Shanghai. Signs in English are infrequent. Officially, the name of the city is Victoria, but gradually it has come to take the name of the island, Hong Kong, which, translated, means "Fragrant Streams."



NEATLY PATCHED IS THE JACKET OF THIS HONG KONG COOLIE



SILENTLY STAND THE NEWS "BOYS" WITH THEIR HANDBILLS
Photography © Screen Traveler, from Grandmas



© Screen Traveler, from Gendreau

KOWLOON'S COMMUTERS PARK IN THE FERRY LOT TO ESCAPE CITY TRAFFIC

This peninsular suburb, across the bay from Hong Kong, is the home of hundreds of Europeans and Chinese who go to business in the city by boat. The tower building is the terminal station of the railroad from Canton (page 349). Spacious modern docks line the water front and ships from many nations now berth here instead of anchoring in the bay.

GUERNSEY, THE FRIENDLY ISLAND

BY ALFRED S. CAMPBELL

DENSE fog blanketed the Channel and the ship rolled in the grip of a heavy swell. I stood on deck, peering ahead for some sign of land—the four-hour journey from Weymouth to Guernsey had lasted long enough.

"We're close in now," remarked a passenger. "In a few minutes you'll hear the bell on Castle Cornet. The watchman strikes it every time a ship comes in sight. A hundred and fifty years ago, when the townspeople heard it they would catch up their arms and prepare to fight off a French invasion, but nowadays it just lets them know that their London morning papers will be in soon."

We waited; then came the clear, sharp note of a bell, struck once. As if that sound signaled the raising of a curtain, the fog lifted and sunshine glittered on the wet decks. St. Peter Port lay dead ahead.

Houses, churches, and shops, huddled closely together, covered the steep slope leading from the water front. The grim old fortress of Castle Cornet, just off our port bow, was mellowed by age and by the late afternoon sun (Plate VI and page 371).

EIGHT MILES WHITE ROCK SPEED LIMIT

Silently, slowly, we glided into the harbor through the narrow entrance. Men in rowboats caught the thick mooring ropes and towed them to the jetty, and with a grinding and whirring of winches we were drawn gently alongside. Friends greeted smiling friends, derricks lifted crates of luggage from the hold and deposited them on the dock. Taxis crept away at the eight-mile-an-hour gait prescribed by law for vehicles on the "White Rock," as the jetty is called.

While I had tea I looked out my hotel window at the crowded harbor. Hundreds of yachts and tiny boats lay at anchor, snowy gulls dipped and soared above the blue water, the steamer which brought me over backed out slowly and resumed her journey to Jersey. The little islands of Herm, Jethou, and Sark* lay just beyond, blue-black against the horizon. Not even the dozens of automobiles plodding to and fro in the street beneath could destroy the tranquil beauty of the scene.

* See "Feudal Isle of Sark," by Sibyl Hathaway (La Dame de Serk), NATIONAL GEOGRAPHIC MAGAZINE, July, 1932, and "Channel Islands," by Edith Carey, August, 1920.

In the morning I conquered the temptation to wander long through the cobbled streets of the town. There were two tasks to perform: first, the registration of my passport, and, second, the discovery of a farmhouse where I could live during the summer. The first proved easy, for the courteous official was so pleasant that I did not even mind being classed as an "alien." I had the name of a farmhouse if I could only find my way there.

Several policemen stood outside headquarters. "Can you tell me how to get to Les Grantés Farm, in Câtel?" It seemed a simple question, but the discussion which followed showed me that it would be anything but easy to make my own way there.

After they had suggested and rejected various routes, one turned to me. "My name is Bull, sir. I'm going out that way presently, and if you don't mind a motor-bike I can take you to Les Grantés on the pillion."

Five minutes later we chugged through the narrow, winding streets of St. Peter Port and headed for the open country. Officer Bull leaned forward, our speed increased, and I clutched his belt tighter as we swung round a sharp curve. Left-hand driving along narrow roads, I found, had many thrills. Under the circumstances, conversation was difficult.

"Just come from America?" bellowed the policeman over his shoulder, expertly threading his way between two carts. "Had an uncle go there once—never heard of him again."

We roared along between two high stone walls.

"Seen our little church yet, smallest in the world?"

"No!" I shouted.

MINIATURE CHAPEL BUILT OF BROKEN PLATES AND CROCKERY

We swung in a wide arc, turned in at a lane and dismounted at the gates of Les Vauxbelets Monastery, in St. Andrew's Parish (page 365).

Inside the tiny chapel there was barely room to stand without touching each other. The walls were a gay-colored mosaic.

"What are they made of?" I asked.

"Bits of broken plates and cups and crockery," was the surprising reply. "Sometimes visitors leave broken dishes in the



Photograph by B. Anthony Stewart

HILLS, NOT STORIES, MAKE GUERNSEY
SKYSCRAPERS

Crowning the topmost ledge in St. Peter Port are private residences and gardens. The firm of I. C. Fuzzey, at the foot of Cornet Street, is a corporation, indicated by the "Ltd.," which corresponds to the familiar "Inc." in the United States.

corner for the Brother to build with. The outside is made of furnace clinkers, cemented together. Ten years he's been on it now, they tell me, all in his spare time. Beautiful, isn't it?"

We remounted and resumed our journey. The roads grew narrower, the houses farther apart. Now we were passing between turfed banks, surmounted by high hedges of hawthorn, holly, and gorse, laced with honeysuckle and brightened by the crimson and purple blossoms of veronica.

Through gaps I had fleeting glimpses of sleek cattle browsing in trim pastures, of wooded slopes, the rocky coast, and the deep-blue waters of the Channel.

At length we stopped at a stone house with the name *Les Grantés* painted over its portal. I was sorry that my ride was over.

When I thanked him, "Not at all, sir," said Officer Bull. "Always glad to help a stranger." And with a cheery wave of his hand he was off down the road.

Mrs. Le Page came to the door. I explained that a friend had told me I might find accommodations there for the summer. She looked doubtful. All their rooms were engaged in advance. Who was my friend? An American?

"Oh, we can manage, then. Wilfrid and I will just put up a tent, and you can have our room."

Later, when I found that it rained nearly every night, I realized that they had actually sacrificed their own comfort for a stranger!

I found orientation in Guernsey no easy matter. Although the total area, 24 square miles, is a little more than that of Manhattan Island, there are some 600 miles of winding roads and lanes which cross and recross at frequent intervals.

After losing myself many times I found that the best way to walk from one part of the island to another was to fix my eyes on some prominent objective, such as an old mill or a Martello tower, and



Photograph by B. Anthony Stewart

20-YEAR-OLD TREES BEAR PLUMP LEMONS UNDER GLASS

This retired Guernsey farmer grows the fruits as a hobby, gives most of them to friends, and sells a few on the island for six and eight cents apiece.



Photograph by Alfred S. Campbell

DOWN A GUERNSEY LANE ISLANDERS WEND THEIR WAY TO A CATTLE SHOW

More than 600 miles of winding roads and bypaths cross and recross an area only slightly larger than Manhattan Island. Originally all were cowpaths, just wide enough for a man and a cow.



Photograph by Alfred S. Campbell

LEISURELY PICNICKERS PREFER THE OUTMODDED CART

Exploring Guernsey water lanes is a popular pastime. The roadways follow streams in shallow beds, twisting and turning in their course to the sea. Luxuriant ferns line the banks. Some of the roads are steep, and when such jaunts are made on foot the return trips often tax pedestrian strength.



Photograph by R. Anthony Stewart

FIVE LITTLE MAIDS WAIT TO SEE WHAT COMES FROM THE LOBSTER POTS

Smiling daughters of Rocquaine Bay fishermen line up on the west coast rocks to await the return of the boats. They may greet their fathers in two languages, English and a curious French patois. The latter is a relic of the old Norman tongue (pages 376 and 390).

gradually work my way toward it (page 392).

The Martello towers encircled the coast as part of a chain of defense against French invasion in Napoleonic times. From their tops the militia could lay down a barrage covering every inch of the coast.

ISLAND LANES ARE GUERNSEY PATHS

Originally, of course, the lanes were cowpaths, and one of regulation width should just accommodate a man and a cow, walking side by side. Bordered as they are by stone walls or hedges, they leave no room for vehicles to pass one another.

"What happens when two motots meet?" I asked a road mender.

"Well, sir, by law the one nearest a turn has to back up, but if there's a lady driver in one of them the gentleman always does the backing. No, sir, it's not just politeness. Ladies can't seem to learn to back properly."

I walked on, wondering what would happen if two lady drivers met.

It seemed to me that in Guernsey the higher the speed the greater the chance of getting lost, for there are few signposts, and those inconspicuous. A cyclist has twice the opportunity of the pedestrian for losing his way and the motorist four times, for once he has passed the essential turn the stranger wanders in a maze of bypaths.



Photograph by R. Anthony Stewart

CLINKERS, BITS OF POTTERY, AND SEA SHELLS FORMED THIS TINY CHAPEL, THE WORK OF ONE MAN

La Grotte, the miniature chapel is called, because it stands over a grotto like that of Lourdes in southern France. A priest built it on the grounds of Les Vauxbelets Monastery (page 361).

Even the pedestrian has his troubles. One Saturday afternoon a friend and I spent several hours trying to walk the few miles between St. Peter-in-the-Wood and C atel. When for the fourth time we found ourselves back at our starting point we took a bus, and were home in eight minutes!

The sea has carved the red and blue granite cliffs of the coast into innumerable bays and caves, once the haunt of smugglers and pirates (Plate VIII). Everywhere is evident the endless work of sculpture by wind and waves. Huge boulders lie in fantastic heaps, jagged rocks appear and dis-



Photograph by B. Anthony Stewart

FISHERMAN AT HEART, HE WEAVES THE LOBSTER POTS FOR THOSE WHO STILL CARRY ON. In the warm sunshine of a Guernsey greenhouse, an old man finds age no handicap in this work. Modern wire traps have come into use on the island, but fishermen believe the wicker ones are better lures for the lobsters.

appear with the 30-foot rise and fall of the spring tide, and in winter tons of shingle are hurled bodily over the sea walls (page 369).

Despite low temperature of the water and treacherous currents which sweep around the island, sunny days find the beaches crowded with bathers. The law imposes no restrictions upon bathing costumes, merely forbidding nude bathing after eight in the morning. One soon becomes accustomed to changing clothes on the open beach.

After a brief plunge and a sun bath the tea baskets appear, and everyone drinks a cup or two of hot tea before the stiff climb which is part of the homeward journey.

The ascent from the popular beach at Fermain Bay is so steep that a launch which carries passengers back to St. Peter Port does a thriving business. An ingenious gangplank mounted on cart wheels, pushed into the water by a brawny boatman, enables passengers to walk on board dry-shod (page 368).

RESTING SEATS FOR WITCHES

Islanders proudly show their homes to visitors. Many old stone houses have stood for centuries, tenanted by the same family. In that time little change has taken place, except the substitution of red tile for thatch as roofing material.

A stone projection on the side of each chimney, near the top, caught my attention. Finally I asked an old inhabitant about it. He explained that there are still many witches in Guernsey. On Friday nights they fly to the "Trépied" dolmen at Catiaroc for their weekly revels. The stone projections are witches' seats, resting places lest they tire on the way. If no seat were provided they would come down the chimney and rest by the hearth, soot-streaked and in very bad temper.

Guernseymen of the sixteenth century burned 16 witches and sorcerers at the stake. It was the practice to sentence them to death *first* and try to extract a confession afterwards. Since then the islanders have learned that witches, if left to their own devices, are of actual assistance at times—in laying a spell on a neighbor's cattle, for instance, or ridding children of warts.

For a small consideration witches will even teach incantations and spells to cure horses of colic, prevent dogs from biting, and reveal the location of lost articles.

As might be expected, the island harbors many ghosts, too. Not long ago, several of

them became so objectionable that the local clergy had to exorcise them and lock them in closets.

Some years ago the congregation of the old Church of St. Sampson saw what appeared to be a monk, tapping at a particular spot on the stone wall. He repeated this performance every Sunday until, during some necessary repairs, that part of the wall was torn down. In a hidden recess workmen found a beautifully embossed silver chalice of the early sixteenth century, which is still preserved in the church.

Recently the same ghost appeared again, this time tapping at another spot. Members of the congregation were considering an appeal to the Bishop for permission to search this part of the wall also.

Saint Sampson and other early missionaries attempted to substitute Christianity for the pagan rites of the islanders. They built chapels and churches and made many conversions, but traces of paganism still remain. There are indications, for example, that the statue-menhir which stands in front of St. Martin's Church is still an object of veneration (page 373).

This crudely carved stone figure, probably intended to represent the Goddess of Fertility, is affectionately known as La Gran'mère. Wreaths, placed there by persons unknown, occasionally encircle its brow, and as recently as 1932 a coin was found on top of the head.

It has been suggested that the holder of a ticket for the Irish Sweepstakes may have put it there—just in case.

TRACES OF FEUDAL TIMES

Of all the chapels built in early days, that of Sainte Apolline, dating from the end of the fourteenth century, is the only survivor. The others were pulled down or fell apart, and Ste. Apolline's escaped a similar fate only through the interest of a former Bailiff, Sir Edgar MacCulloch, author of that delightful book, *Guernsey Folk Lore*. Through his efforts the chapel was bought by the States of Guernsey and preserved.

The States (Parliament) of Guernsey have also bought or had deeded to them many properties on which are situated dolmens and monoliths. They have preserved to this day, moreover, most of the rights and privileges granted them by early Dukes of Normandy, and feudalism persists in the observance of many old customs.

The "Clameur de Haro," the ancient



Photograph by Alfred S. Campbell

GANGPLANKS ON WHEELS KEEP ENCURSIONISTS' FEET DRY WHEN IT'S TIME TO GO HOME

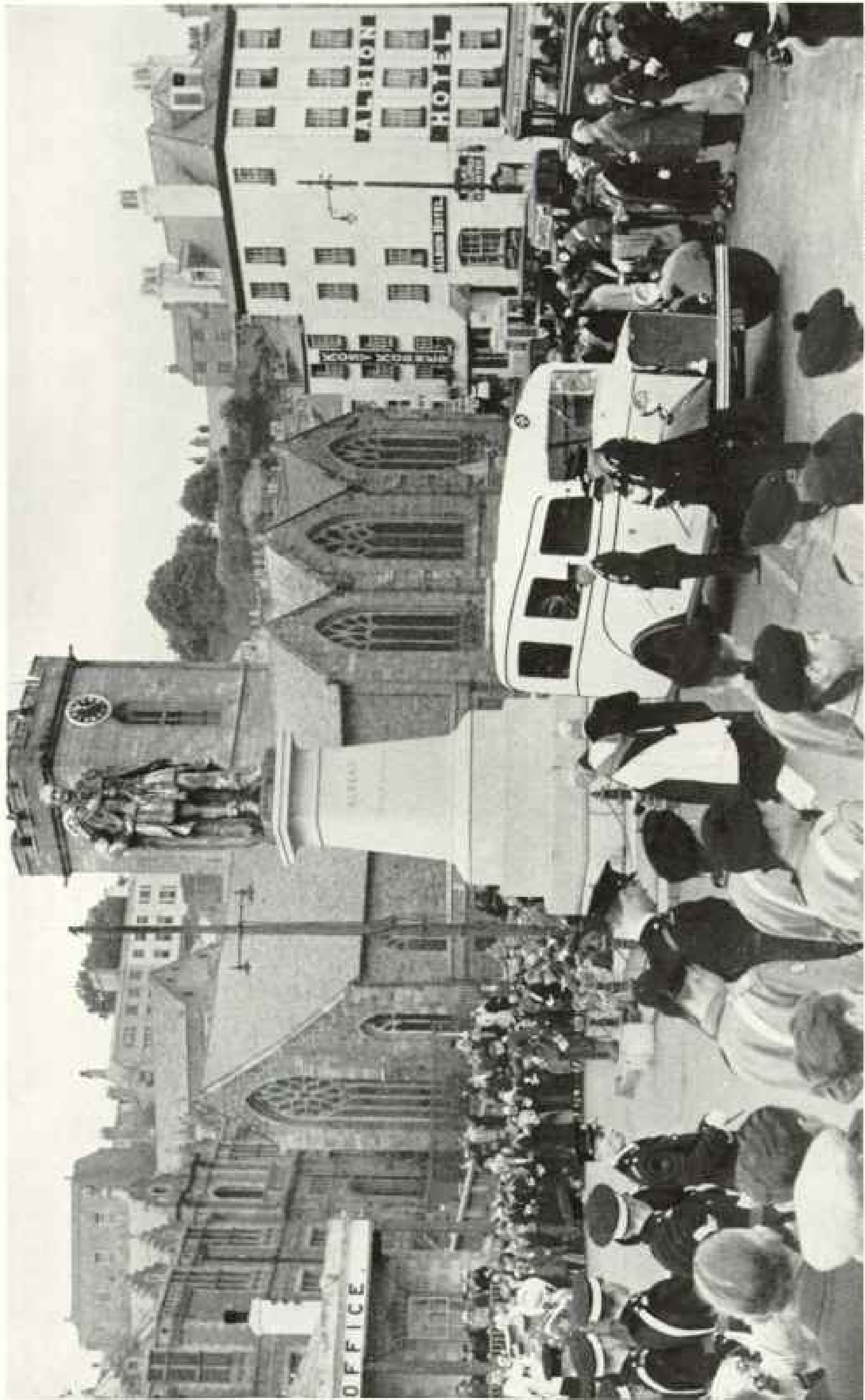
Islanders go by boat from St. Peter Port to Ferrmain Bay, a few miles down the coast, for a day of swimming. They choose the water route because they like the brief trip in the launch and because they will not be forced to clamber up the steep cliffs to get home. A flat-bottomed boat carries them from the end of the movable boardwalk to the sturdier craft standing off a few yards from shore (page 367).



Photograph by B. Anthony Stewart

FROM THIS STUDY WINDOW EXILED VICTOR HUGO'S SEARCHING EYE VISIONED JEAN VALJEAN

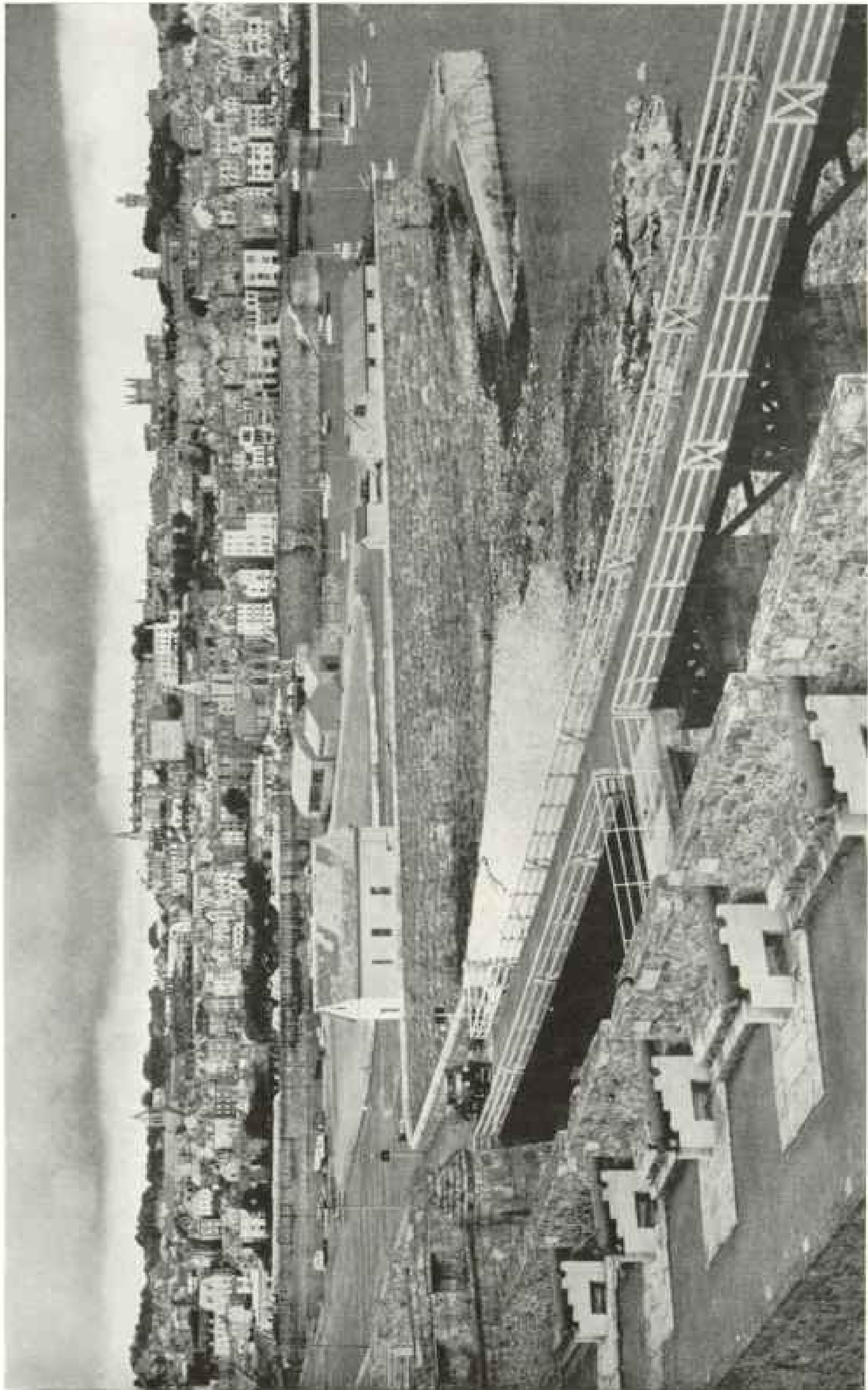
Standing in the glass room atop Hauteville House, his Guernsey home for 14 years, the great novelist wrote *Les Misérables* and other famous works (page 396). He never seated himself while writing. Ink dried slowly in those days and he would place sheet after sheet, as they came from his pen, along the window ledge or on the steps. Gazing out over the little town of St. Peter Port and the sea, on a clear day he could see the shoreline of his beloved France (pages 387-8).



Photograph by H. Anthony Stewart

PRINCE ALBERT GAZES DOWN FROM HIS PEDESTAL AS ST. PETER PORT DEDICATES A NEW AMBULANCE

The band and troops of the regular Guernsey militia take part. Ceremonies on a Sunday morning follow services at the old town church in the background. The name of this structure dates from the thirteenth century, but an earlier one is mentioned in a charter of William the Conqueror granted about 1048. The statue of Queen Victoria's Prince Consort, looking toward the southern pier of the old harbor, has been a landmark for three-quarters of a century.



Photograph by B. Astbury Stewart

OLD, NARROW STONE HOUSES CLUSTER TIER ON TIER ALONG THE SLOPES OF ST. PETER PORT

From the ramparts of Castle Cornet, harbor and town lie revealed. The oval pool, partially hidden by the low frame house in the center, is a model yacht pond for children. Beyond stands the old town church, hub of the community. Outlined against the sky at the extreme right, 320 feet above the sea, is the Victoria Tower, erected in memory of the Queen and Prince Consort, one of the first landmarks sighted by approaching boats. A short distance to the left of it rises the four-spired tower of Elizabeth College. Salutes occasionally are fired from the ancient 40-pounders of the Tudor battery in the foreground.



Photograph by B. Anthony Stewart

SHOPPERS HAVE NO TRAFFIC PROBLEMS HERE—BICYCLES ARE THE ONLY HAZARD

Stores prosper in summer months when thousands of Englishmen on holiday visit Guernsey. A daily "Sunshine Chart," printed in London newspapers, notes the amount of sunshine in the British Isles; Guernsey claims the record for a 39-year period.

right of direct appeal for justice, was raised only a few years ago when a citizen knelt down in the public street and cried: "Haro! Haro! Haro! A Faide, o mon Prince! On me fait tort."

He then repeated the Lord's Prayer in French, called witnesses, and plead his case in court. Some plaster from a scaffolding had fallen on his pet gooseberry bushes!

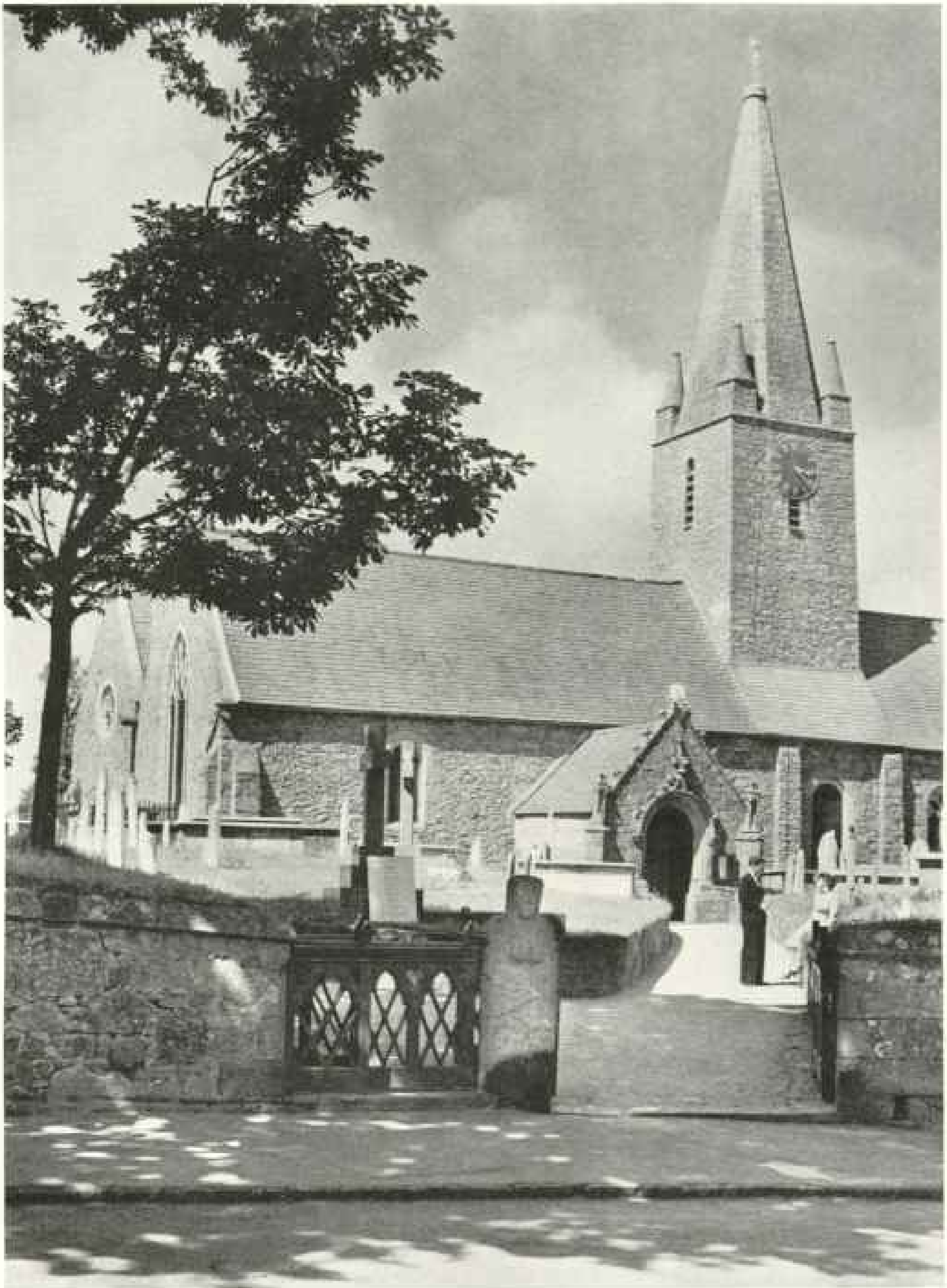
The Seigneurs of Guernsey still hold their feudal courts to collect tithes and rents. Queen Victoria was a tenant of the fief of Blanchelande there, the ruined barracks near Icart Point having been built by the Crown. As tenant, her presence at the annual meeting was obligatory.

At every Court the Sénéchal called in loud tones for "La Royne." When there was no answer he called out still louder, "Encore la Royne," and then, peremptorily, "Trois fois la Royne!"

At this point a fine of three *livres tournois* (about \$1.10) was imposed on the Queen for non-appearance. The King's Receiver paid this each year until finally he obtained exemption for her by signing a paper acknowledging the Seigneur de Blanchelande's rights.

LAWMAKERS "DISCREET, LOYAL, RICH"

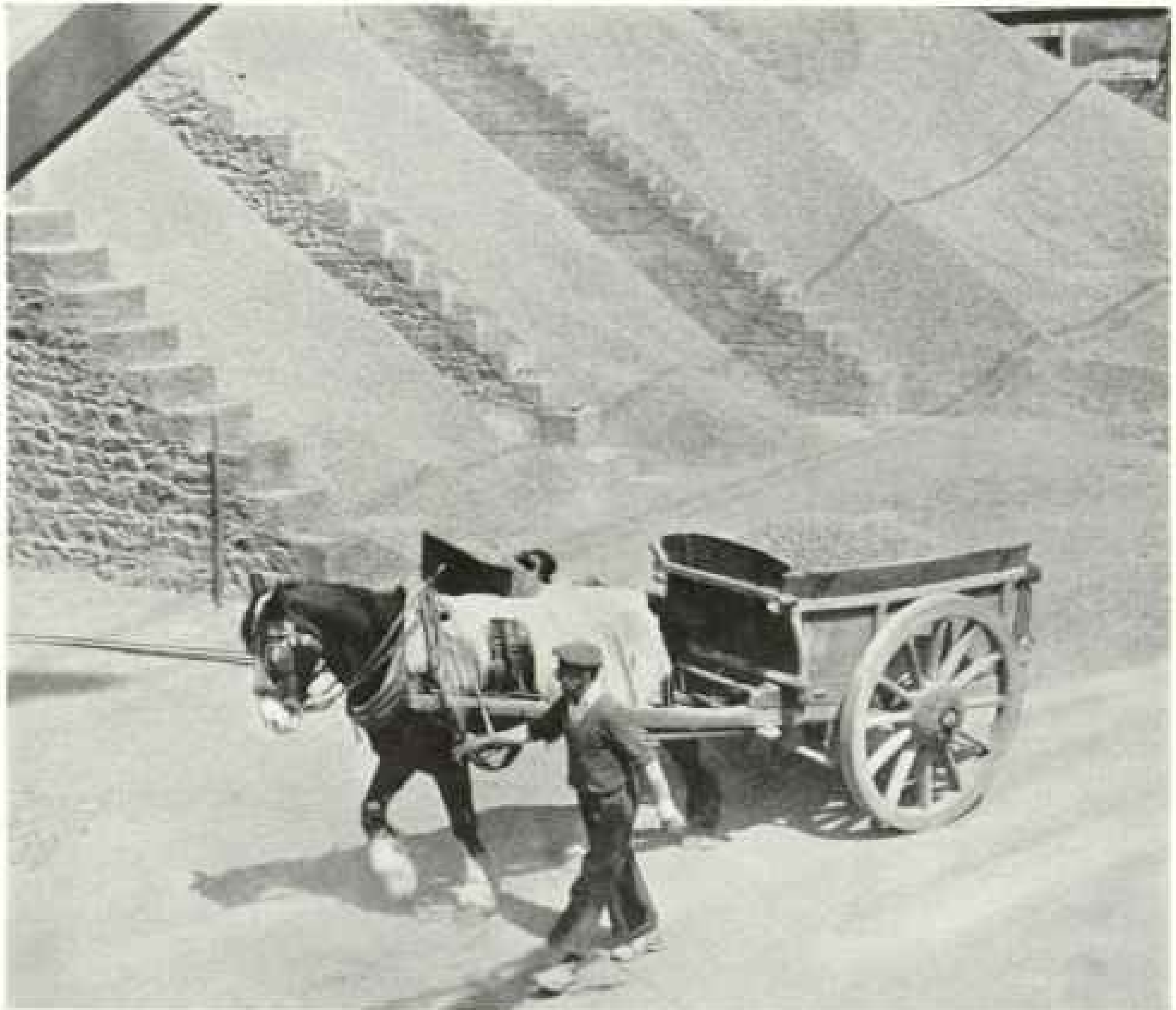
Laws for the island are not made by the British Parliament, but by the Royal Court of Guernsey, headed by the Bailiff. He is appointed by the Crown and is the highest civil authority. The twelve Jurats who assist him have been chosen from "the most notable and discreet, wise, loyal, and rich men of the island." They are elected for life, serve without pay, and cannot decline the honor unless they purchase a brewery or taproom, for the law says that no brewer or publican may be a Jurat.



Photograph by B. Anthony Stewart.

"GRANDMOTHER," ISLANDERS CALL THIS PAGAN RELIC AT THE GATEWAY

Sculptured in prehistoric times, the rudely carved statue-menhir of a woman still is credited with supernatural powers by a few islanders. Not long ago a coin was placed on its head by one superstitious believer to bring good luck (page 367). St. Martin's Church, in the background, dates from about the twelfth century.



Photograph by E. Anthony Stewart

DOBBIN HAULS GRAVEL TO PAVE THE STREETS OF FARAWAY WESTMINSTER

Many roadways in England receive their crushed stone from Guernsey's granite quarries, numerous near St. Sampson. Its small harbor, a few miles north of St. Peter Port, does a thriving export business, but is left dry during ebb tide.

A long lecture by the sergeant at arms who guarded the door prefigured my first visit to a meeting of the Royal Court. Seeing that I carried a camera (which I had no intention of using), he outlined in a fierce whisper all the horrible penalties which the Court would probably inflict if I so much as snapped the shutter once.

I went meekly to the visitor's gallery, and perched on a hard, narrow bench.

The empty chairs and desks of the Jurats formed a semicircle in the front of the courtroom, with a sort of throne in the center for the Bailiff and a chair to his right for the Lieutenant Governor, who represents the Crown and has supreme command in military matters.

Beneath them, in the "well" of the court, sat the Constables of the parishes. His Majesty's Sheriff, in cocked hat, sword, and chain of office, stood near the doorway,

while the other Court officers and clergy took their places quietly.

In a sudden silence a deputy announced "La Cour!" and everybody rose. The Bailiff, in ermine-bordered gown, entered, and bowed graciously to the members of the bar. The Lieutenant Governor, in mufti, and the berobed Jurats followed and took their places. Every head bent as the Grefier, or Clerk of the Court, from his desk in the "well," read the Lord's Prayer in French. Then we followed the example of the Bailiff, who sat down.

GOVERNOR ANDROS WAS ISLAND BAILIFF

The proceedings of the Court were carried on in a dignified and impressive manner, sometimes in English and sometimes in French. On the walls hung portraits of Major General Sir Isaac Brock, through whose efforts Canada was saved for the Em-



Photograph by B. Anthony Stewart

GUERNSEY HAS ITS OWN WOOLWORTH THREE-AND-SIXPENCE

At the foot of High Street, principal business thoroughfare, and just across from the ancient town church, the familiar sign appears. "Nothing over 6d," it proclaims. Many modern shops are housed in aged stone buildings suggestive of an old Norman town.

pire during the War of 1812, and of Sir Edmund Andros, once Bailiff of Guernsey, but better known as the American colonial governor of the "Dominion of New England," and also of New York, New Jersey, Virginia, and Maryland.

In this Old World setting experts offered their opinions on the proper location for a new airdrome, and a thundering chorus of "*pour*" and only one "*contre*" registered the vote for a new public bathing pool.

At this point a young man in the visitor's gallery started down the steps. To his dismay he stepped on a board which creaked alarmingly. A menacing glare from the sergeant froze him in his tracks and he stood motionless for the next half-hour, crimson with embarrassment.

The meeting adjourned at ten minutes to one. "If it had lasted eleven minutes longer," whispered the man sitting next to

me, "they could have dined at the expense of His Majesty the King. That's one of their old privileges."

The Bailiff is not only chief civil executive of the island but also president of The Royal Guernsey Agricultural and Horticultural Society, an organization composed of farmers. Agriculture is the main source of revenue, but there are two distinct branches: cattle breeding and the cultivation of fruit, flowers, and vegetables under glass (Plate III, and pages 391 and 393).

GUERNSEY COWS HELPED BYRD EXPLORE ANTARCTICA

In the latter part of the tenth century, monks from Normandy and Brittany introduced cattle into the island; the former the large brindled *Isigny* breed, and the latter the little red and white *Froment de Leon*. In time these two breeds merged into a new

breed known as the Guernsey (Plate I).

Nearly every day a ship leaves the White Rock freighted with cattle destined for South America, Africa, Australia, or England. Three Guernsey cows even accompanied Admiral Byrd to the Antarctic.*

Besides some 380,000 purebred Guernseys registered in the United States in the last ten years, there are more than a million additional American animals carrying some Guernsey blood.†

Although they have furnished the foundation stock for herds in nearly every part of the world, Guernsey farmers themselves have only a few animals each, from six to ten on the average. An owner can tell the exact day when each of his cows was born, when it calved, and the amount of milk and the percentage of butterfat it produced. Also, he knows more about their family trees than about his own, although many Guernsey folk boast ancestors of William the Conqueror's day.

Each tiny field, measuring from half an acre to three or four acres, is surrounded by a high bank of earth with a hedge of gorse planted on top as a windbreak. Every three years the prickly gorse bushes are cut down and used as fuel. Pasture for the 5,000 or so head of cattle is limited, and for this reason they are tethered, rather than allowed to graze at will.

Throughout the summer when I walked down to the sea at daybreak for my morning dip I would see the cows contentedly chewing their cud as the mist rose slowly from the meadows. When I returned there was a farmer in every field, squatting alongside his cow and "stripping" rather than "milking" into a "Guernsey can" of ancient design.

This chore finished, he would fetch his mallet and knock loose the iron tethering pin from the ground and move it a few feet. A rope tied to a chain about the cow's horns and looped about the pin confined each animal to a small circle, so that no grass was wasted (page 390).

Guernseymen milk three times a day, and shift their cattle every three or four hours, so they can never leave their farms for long. Between times, they churn butter, make hay, and cultivate the fields of

* See "Exploring the Ice Age in Antarctica," by Richard Evelyn Byrd, NATIONAL GEOGRAPHIC MAGAZINE, October, 1935.

† See "The Taurine World," by Alvin Howard Sanders, NATIONAL GEOGRAPHIC MAGAZINE, December, 1925.

mangels and parsnips which in winter take the place of ensilage. Fortunately, the climate is so mild that grass grows rapidly.

SEAWEED PROVIDES FERTILIZER

Twice a year the picturesque and ancient custom of gathering *traic* occupies several days. Farmers drive down to the sea in their carts, which they load with the dripping seaweed at low tide. Some of this is spread on the fields and plowed under as fertilizer; the rest is burned and the ashes used for the same purpose.

One afternoon as I sat by the kitchen stove at Les Grantés with my cup of tea, Wilfrid Le Page came in out of the rain, looking pleased. "The cow's calved down," he said. "Come out and see the calf."

After we had examined the tiny bull, we went back to the kitchen. "What troubles me," said Wilfrid, "is what to name him. I want something new this time. Can't you suggest an American Indian name?"

I proposed *Hiawatha, Iroquois, Redskin*. He shook his head. "They don't sound right." At length I began naming the States, at random. When I reached Arizona, "That's it!" he cried, and wrote it down.

The name and pedigree of the calf were duly registered, and from latest accounts little *Bon Espoir Arizona* and his mother are doing well.

The annual Sark cattle show came in July. After I mentioned that I was interested, I received a cordial invitation to accompany the judging committee from Guernsey. Early in the morning the little *Courier* steamed out of the harbor into the boisterous Channel, and immediately most of the committee disappeared, each "to seek the seclusion which my cabin grants." Fortunately, the sisters and cousins and aunts had been left at home.

I remained on deck with a breeder who was going over to compare the Guernsey cattle on Sark with his own. Our conversation was stilted, full of long pauses, until he said: "Can you speak French? I haven't spoken English much since the war, though I do read the English newspapers."

To my relief, his French was the French of today. Most islanders speak among themselves a patois which has its origin in the Norman French of the Conquest, and some of them know practically no English. A student of modern French may understand a word here and there, and Guernseymen have adopted such new words as

CONTENTED GUERNSEY



A BOBBY AND POSTMAN DISCUSS TOWN AFFAIRS

Dainty daughters at her side, a housewife interrupts marketing to "listen in" at the red letter box in St. Peter Port (Plate VI). This is the island's center of shopping and amusements.

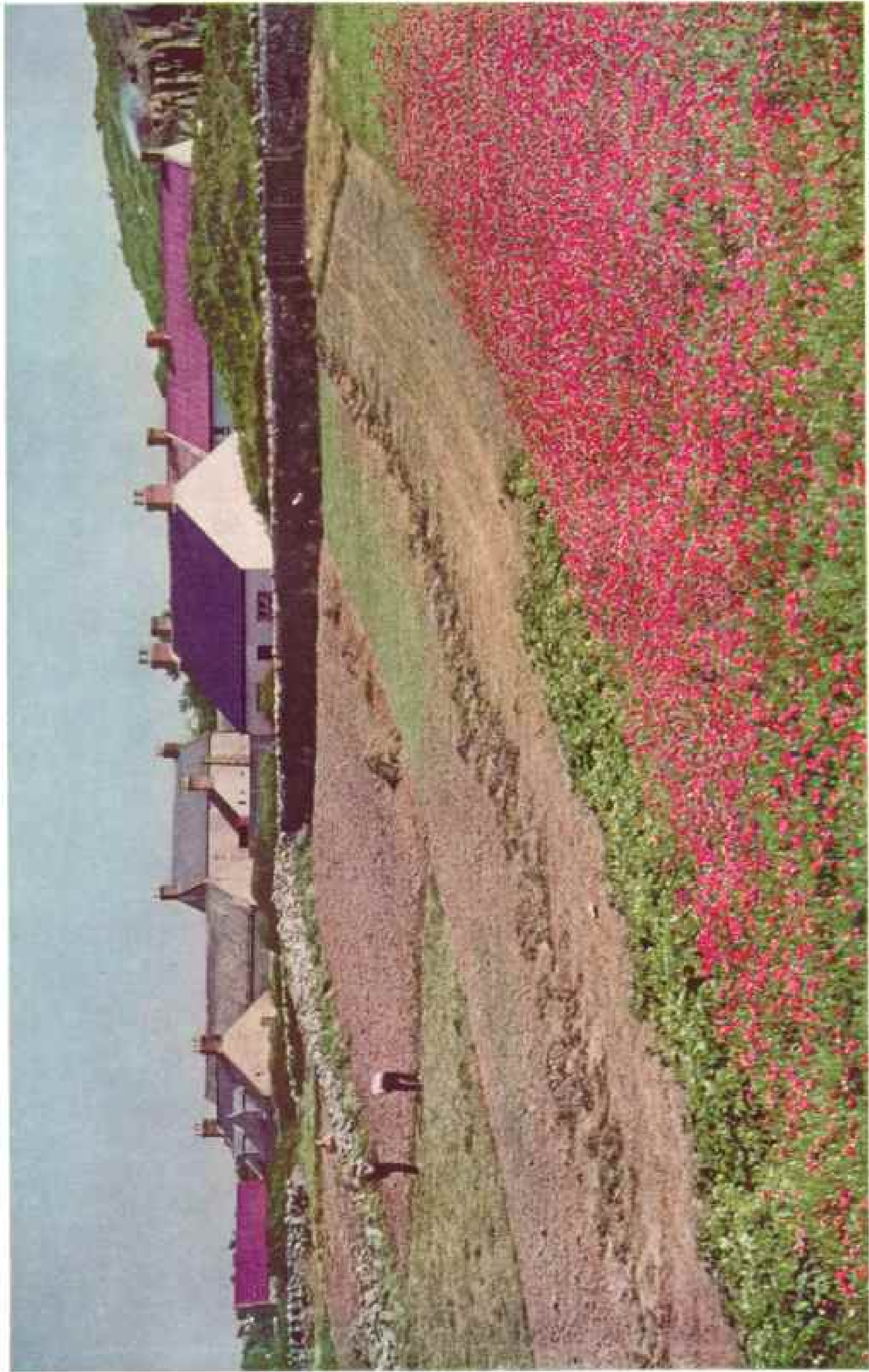


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Finlay Photographs by B. Anthony Stewart

ONLY GUERNSEY CATTLE MAY DWELL ON THE ISLE OF GUERNSEY

Strict laws against importation keep the strain pure. Here, in the land of the breed's origin, only 5,200 head are found, whereas in the United States seventy-one times that number have been registered in the last ten years. The milkmaid's charge is a winner of the King's Cup.



© National Geographic Society

Finley Photograph by H. Anthony Stewart

WILD Poppies BLAZE IN THE FIELDS UNTIL POTATO PLANTING SOUNDS THEIR DOOM

More than a thousand tons of tubers are exported annually; yet they are a minor factor compared with the huge crop of hot-house tomatoes. Five-eighths of the island's 16,000 acres are under cultivation. Guernsey is a land of small holdings, the average size of a farm being five-and-a-half acres.



© National Geographic Society.

SMALL, ROUND VARIETIES BRING HIGHEST PRICES

Growing tomatoes in hotheouses is the island's largest industry. The bunches of yellow and red specimens the producer is holding are in demand for export because they pack well and are uniform in weight.



Fijiian Photographs by B. Anthony Stewart

ACRES OF TOMATOES GROW UNDER GLASS

Those pictured here are considered too large and unshapely. Thousands of greenhouses dot the landscape and an average one, 30 by 90 feet, holding 800 flourishing plants, may produce more than three tons in a season.



PROUDLY THESE "DAIRYMAIDS" DRESS UP IN GRANDMOTHER'S FINERY. After serving tea to the photographer at Le Pelley farm, the sisters hurriedly donned their milking togs. A few weeks later he met them on the neighboring island of Sark—at a cattle show.

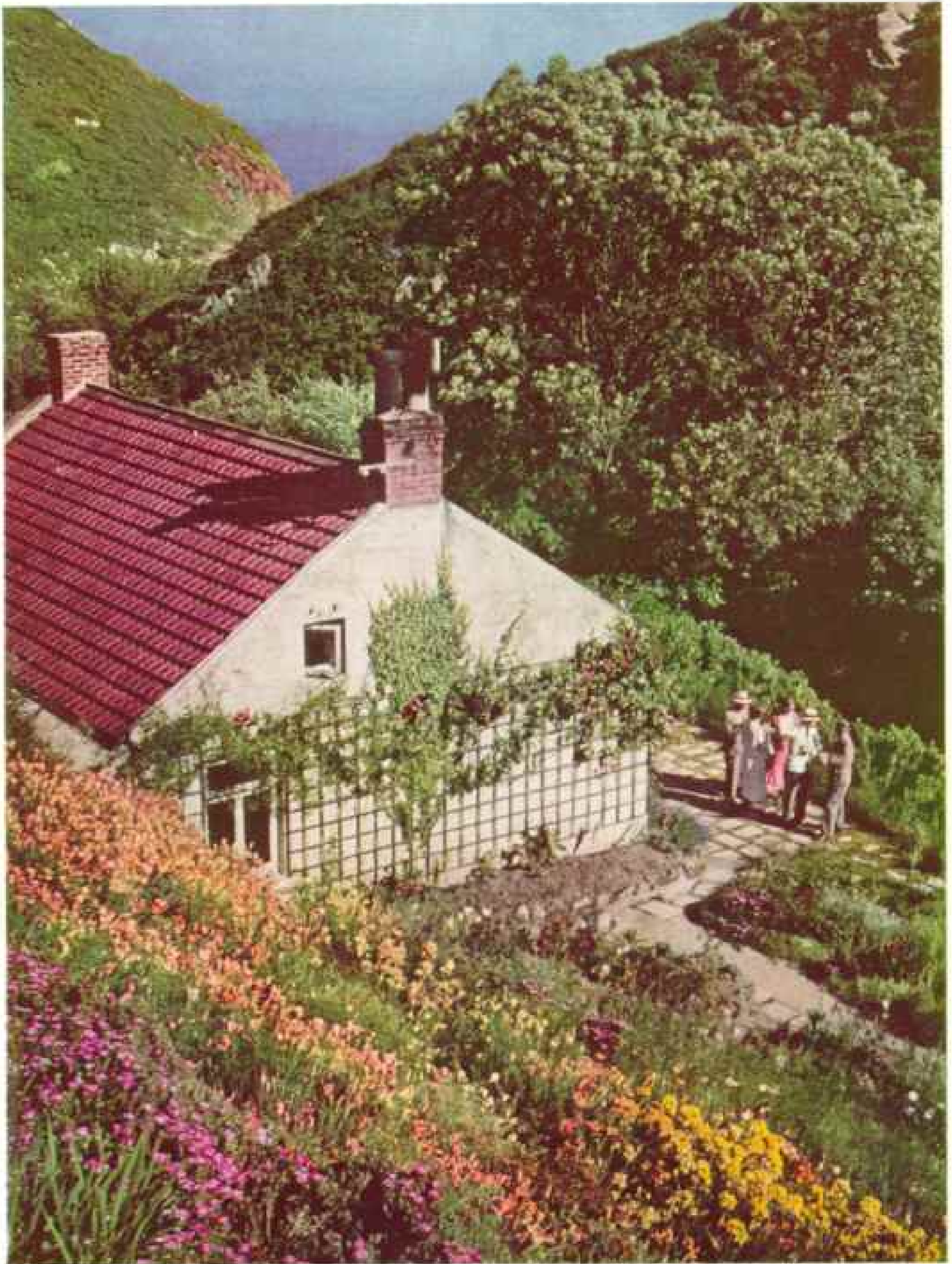


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Finlay Photographs by B. Anthony Stewart

EVEN ISLAND BOYS MAY EARN THE RIGHT TO GO TO OXFORD. Pupils at Les Vauxbelets College hold a "sports day"; one has his trousers clamped for cycling.

CONTENTED GUERNSEY



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Finlay Photograph by B. Anthony Stewart

OVERLOOKING A FOREST WATER LANE, A COTTAGE NESTLES IN ITS QUIET VALLEY

Just beyond the garden and red tile-roofed home, a road leads down to Petit Bot Bay, one of the popular inlets on the south side of the island. The beach is well patronized on week ends and "early closing days," which are Thursdays in Guernsey. Permain Bay, on the east, and numerous inlets on the south and west coasts also are frequented by bathers. Four of five principal dairy cattle breeds in the United States originated in the North Sea region. Guernsey's neighbor, Jersey, furnished the type that bears its name; Holstein-Friesians developed in the Netherlands, and the Ayreshires came from Scotland.



© National Geographic Society

Fifty Photograph by B. Anthony Stewart

ONCE A STILLY REFUGE FOR VICTOR HUGO, GUERNEY'S CHIEF PORT HUSTLES IN TOMATO SEASON

The little town of St. Peter Port, and on the right side of the harbor, old Castle Cornet, overlook the quay where a fleet of trucks is bearing part of the annual crop of 28,000 tons of tomatoes to the docks, for shipment to England. While in exile here, the famous French author wrote "Les Misérables," "Toilers of the Sea," and many of his poems. H. M. S. Nelson, on a good-will visit, anchors outside the breakwater. In the distance, at the left, lies the island of Sark. Beyond the castle the dim outline of Jersey appears just above the horizon.

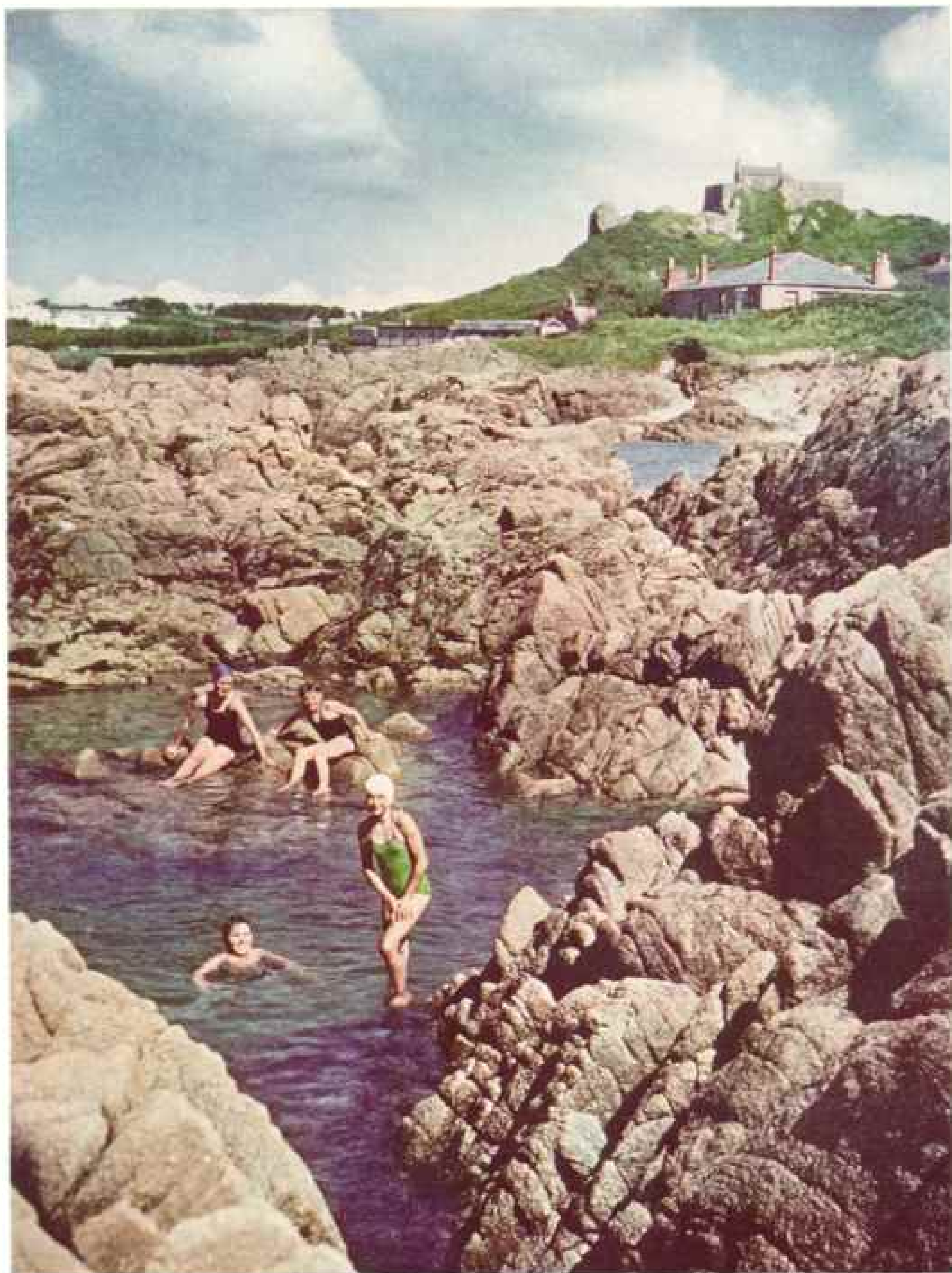


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Frisby Photograph by D. Anthony Stewart

FLOWERS TRANSFORM A LOWLY STABLE YARD INTO A SHOW PLACE

Saumarez Park, the keep-house of which is pictured, bears the name of one of the island's old families. Its most distinguished son, Admiral Lord Saumarez, commanded an English fleet in the Napoleonic era. An imported Japanese house and a lake are within the park. Its greenhouses enclose rare blooms, hot-house peaches and grapes.



© National Geographic Society

Finlay Photograph by B. Anthony Stewart

VICTOR HUGO CALLED THESE ROCKS THE "MIDNIGHT ASSASSINS"

Because they are a menace to mariners, the famous French author gave the island's west coast barriers their sinister name in "Toilers of the Sea." In calm weather pools like this become "ol' swimmin' holes" and bathers dive down to see the brightly colored anemones that flourish under water. On the hill, Le Guet (old French for watchhouse) is a reminder of the day when the island was fortified against Napoleon, who never came!

"automobile," "greenhouse," and "electricity," but for the most part the patois is wholly unintelligible to a stranger.

"TO THE KING, OUR PATRON!"

We spent most of our day in Sark dodging in and out of the committee tent between showers. The cattle in the judging field stood with drooping heads and dripping sides, but in the Mermaid Tavern, just opposite, a group of Sark fishermen were singing lustily in French. We brightened when we were invited to a luncheon where lobster was served, and soon forgot the storm outside.

At the conclusion of the meal the gray-bearded Sénéchal (Judge) of Sark rose slowly to his feet. We followed his example. "To the King!" he exclaimed, raising his glass, and a deep, booming chorus echoed his words, "To the King, our Patron!"

The Alderney show provided exactly the same kind of weather. Again I accompanied the committee; again a rough sea drove most of them below.

The Alderney people outdid themselves in the luncheon, complete even to the cognac in the coffee, so the driving rain mattered little as we returned to the judging field. In the early afternoon, the Lieutenant Governor, from the shelter of a tent, presented the King's Cup. Filled with champagne, it was handed from one to the other of the spectators.

At the moment when His Excellency said goodbye and stepped out into the open a band struck up *God Save the King*, which they played with maddening deliberation while a final burst of rain descended on the bareheaded representative of His Majesty and soaked him to the skin.

Worst of all, while Alderney cattlemen entertained us at "high tea," his yacht battled the tide and the wind in vain for four hours, finally returning, defeated, just as we were about to go aboard our steamer.

Not every cattle show is attended by *mal-de-mer*, rain, and lobster luncheons. The summer show in Guernsey was a very different affair. About eight o'clock one morning my neighbor stopped at the house and offered me a lift. The old horse waited patiently while I clambered into the farm wagon, already burdened with another neighbor, three children, four goats, and a lunch basket.

Our progress was necessarily slow, for the lanes were filled with cattle being led to

the grounds of Saumarez Park (Plate VII), but we got there at last and turned the horse out to graze.

A broad green meadow surrounded by massive trees was the ideal setting for such an event. Dotted here and there were tents—some for the judges, some for the cups and other trophies, and the rest for sandwiches and liquid refreshment. The lowing of cattle filled the air, mingled with the bleating of goats and the jingling of brass trappings as cart horses jogged by. Thousands of spectators wandered to and fro, talking and gesticulating.

ATTENDING A SUMMER SHOW

The judging began at about ten. Owners led their cattle in a great circle around the judges, finally halting for a closer examination. When the judges chose a winner they decorated it with the ribbons and retired to a tent for refreshments. An owner may contest a decision, but such an air of good sportsmanship prevailed that not one complaint was registered all day.

Following the usual luncheon and the ceremony of drinking the King's health, a band arrived. To the familiar notes of *John Peel* and *Bonnie Dundee* young people of the island put on an exhibition of horsemanship. Then the parade of winners started, and I joined in loud applause as little Gordon Colinette, my neighbor's son, marched proudly past leading his goat decorated with the coveted red ribbon.

Late in the afternoon we were given tea at the Manor by Lord de Saumarez, to whom the grounds belong. It had been a perfect day, and ended with a speech by the Bailiff as he presented the prizes. The men in the crowd stood bareheaded in respect for his high office, and the late afternoon sun lit up intelligent Norman faces which beamed with pleasure as they accepted their awards.

THE "GROWING INDUSTRY"

For centuries cattle raising has been the main source of revenue to Guernsey. From time to time such other occupations as quarrying, mining, shipbuilding, and smuggling have temporarily enriched the islanders, but in the end they have gone back to their famous cattle, whose latest rival is what is locally known as the "growing industry."

I tried to find out what industry it was that was growing, and learned that the



Photograph by B. Anthony Stewart

WATCHED POTS LURE SPIDER CRABS IN GUERNSEY.

This baffled prowler is almost as salable as a lobster and forms an important part of the catch. His captor was completing his rounds when this picture was taken. The pot was the sixtieth he had hauled up since morning. Because they are weighted with stone, pulling them to the surface is no easy task.

term referred to the practice of growing things in glasshouses.

"The cattle men don't like it," explained a friend. "They say that it cuts down on their grazing land. The growers reply that tomatoes bring in more money than cows, but I always say, 'Those who live upon glasshouses shouldn't cast aspersions.'"

"Would you like to see our glasshouses?" asked a man I had met outside the Royal Courthouse one morning. "Come on Sunday and stay for tea."

The first sight that met my eyes when I arrived on the appointed day was a fig tree more than a hundred years old, growing inside one of the houses. My host told me that it bears three crops a year, and that the ripe fruit goes to the Covent Garden Market in London (page 391).

We went from one house to another. Here were hundreds of feet of grapevines, trained up along the glass sides and across the top. Thousands of luscious bunches

hung just within reach. We walked through humid rooms where melons, nectarines, and peaches grew, tramped past hundreds of feet of tomatoes trained on wires to a height of ten feet, lingered in the flower houses, filled with roses, sweet peas, begonias, poinsettias, violets, ferns, and a hundred other varieties.

"Guernsey ships thousands of tons of tomatoes to England every summer," said my host, "and some of us raise flowers during the winter for shipment to London. Many growers, though, fill their glasshouses in winter with peas, beans, and even potatoes. Let's go in to tea."

THE MAGNITUDE OF GUERNSEY TEAS

Before I left America I had been warned about Guernsey teas. I was told not to expect merely a cup of tea and thin bread and butter; in fact, it would be better to fast before accepting the invitation. Even at that, I was overcome by the sight as we entered the last flower house.



Photograph by R. Anthony Stewart

CARVED CHAIRS, LONG VACANT, CONJURE THOUGHTS OF HUGO'S LIFE HERE WITH HIS PARENTS

"Son," "father," and "mother" read the Latin inscriptions. The seats are part of the furnishings of the famous Oak Gallery, in Hauteville House, celebrated for its Spanish leatherwork, oak candelabra, and fine woodcarving, some of it by the novelist.

A table had been placed in the center, draped with a snowy cloth on which were dozens of plates heaped with cakes and dainties of a sort I had never before seen. A huge Guernsey *gâche*, which is a sort of fruit cake, was flanked by plates and baskets of figs, grapes, nectarines, peaches, and raspberries. Guernsey biscuits, jams, and conserves filled all the remaining space.

We sat there in the shade of a bougainvillea vine which clung to the underside of the glass roof. Bees droned about the flowers on every side, while my hostess pressed me to try one after the other of the dainty cakes which she had made with cunning skill. For the time being I was one of the family, and that afternoon crystallized my sentiment about the friendliness of Guernsey people.

Guernsey has its own flower and its own flag, the Cross of St. George, flown over the Royal Courthouse when the Court is sitting.

A former Bailiff also used this flag for other occasions. Paying a ceremonial call on a man-of-war on the Roads, his launch hoisted the flag of Guernsey, which, afloat, is the flag of a British admiral.* When the officer of the watch saw the occupants of the launch he quickly dismissed the guard of honor and announced to the captain that a man in a silk hat had come out to the ship, flying an admiral's flag, and calling himself a Bailiff. Since then, Bailiffs have used the flag only on the island.

THE GUERNSEY LILY WAS INTRODUCED BY A SHIPWRECK

The flower of Guernsey is the Guernsey lily (*Nerine*, or *Amaryllis sarniensis*), which grows wild on the coast near Vazon Bay. More than 200 years ago a Dutch vessel from Japan was wrecked off that

* See "Flags of the World," by Gilbert Grosvenor and William J. Showalter, NATIONAL GEOGRAPHIC MAGAZINE, September, 1934.

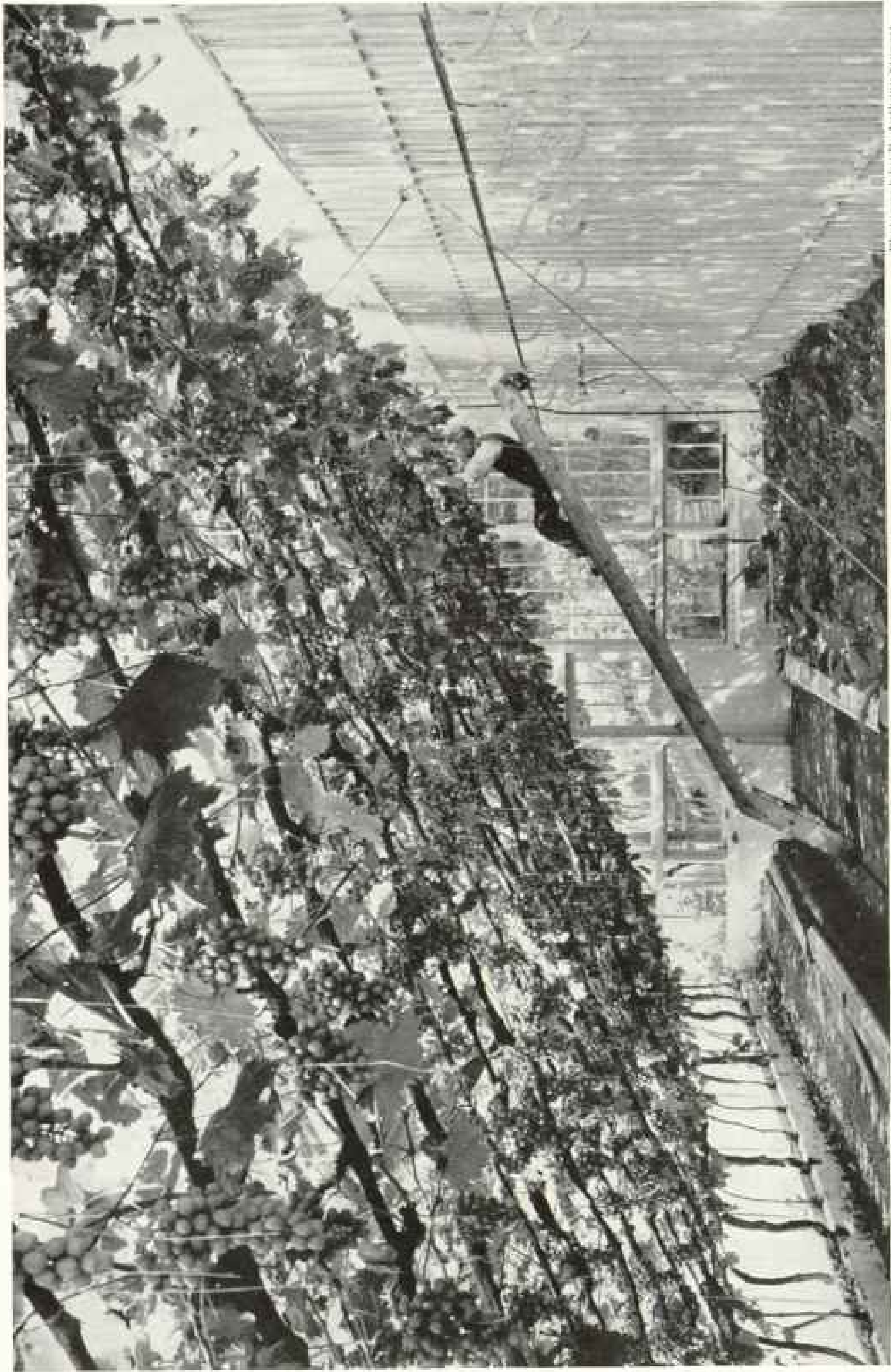


STILL HUGO STRIDES HIS SOLITARY PATH INTO THE GALE



Photographs by B. Anthony Stewart

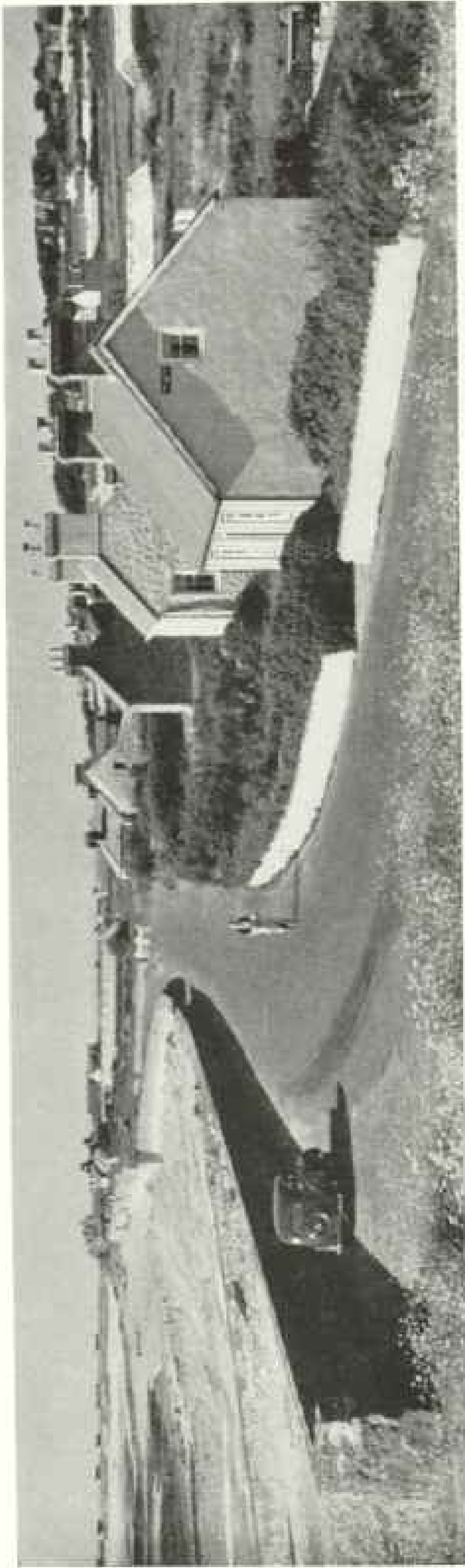
"BRING 'EM BACK ALIVE"—DEAD LOBSTERS PAY NO DIVIDENDS



Photograph by H. Anthony Stewart

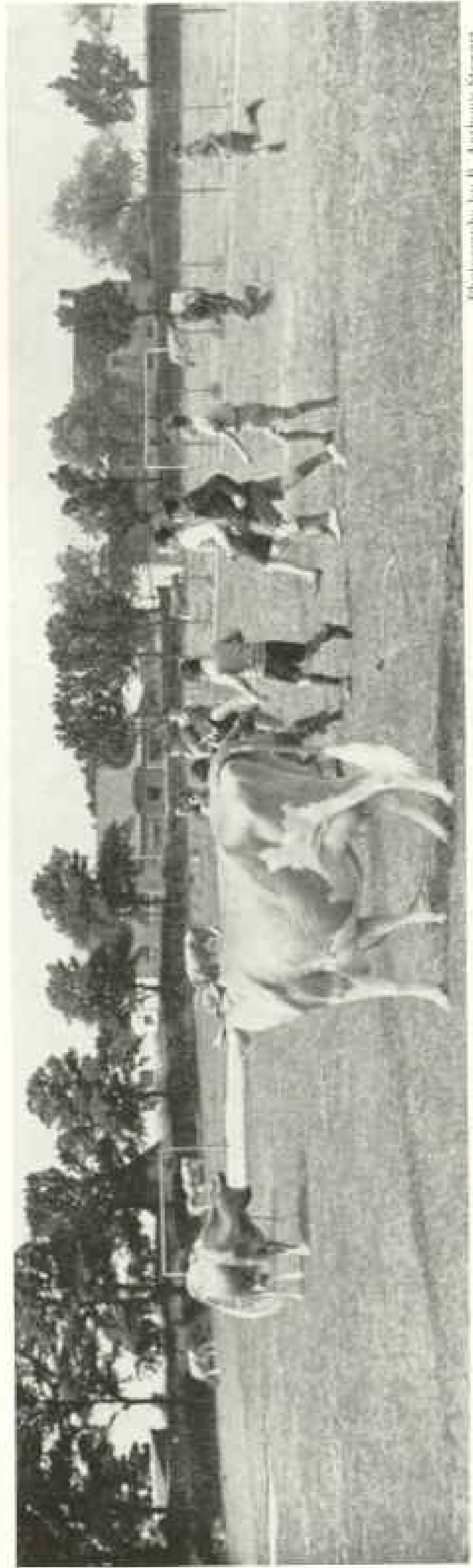
BACK AND FORTH A GUERNSEY GROWER ROLLS HIS WHEELED DEVICE TO TEND HIS GRAPES

Comfort and efficiency are combined in Saumarez Park, a private estate, when the time comes for thinning out and shaking the fruit (page 386).



FISH TO THE WEST, TOMATOES TO THE EAST, SUSTAIN THE HARDY FOLK OF ROCQUAINE BAY

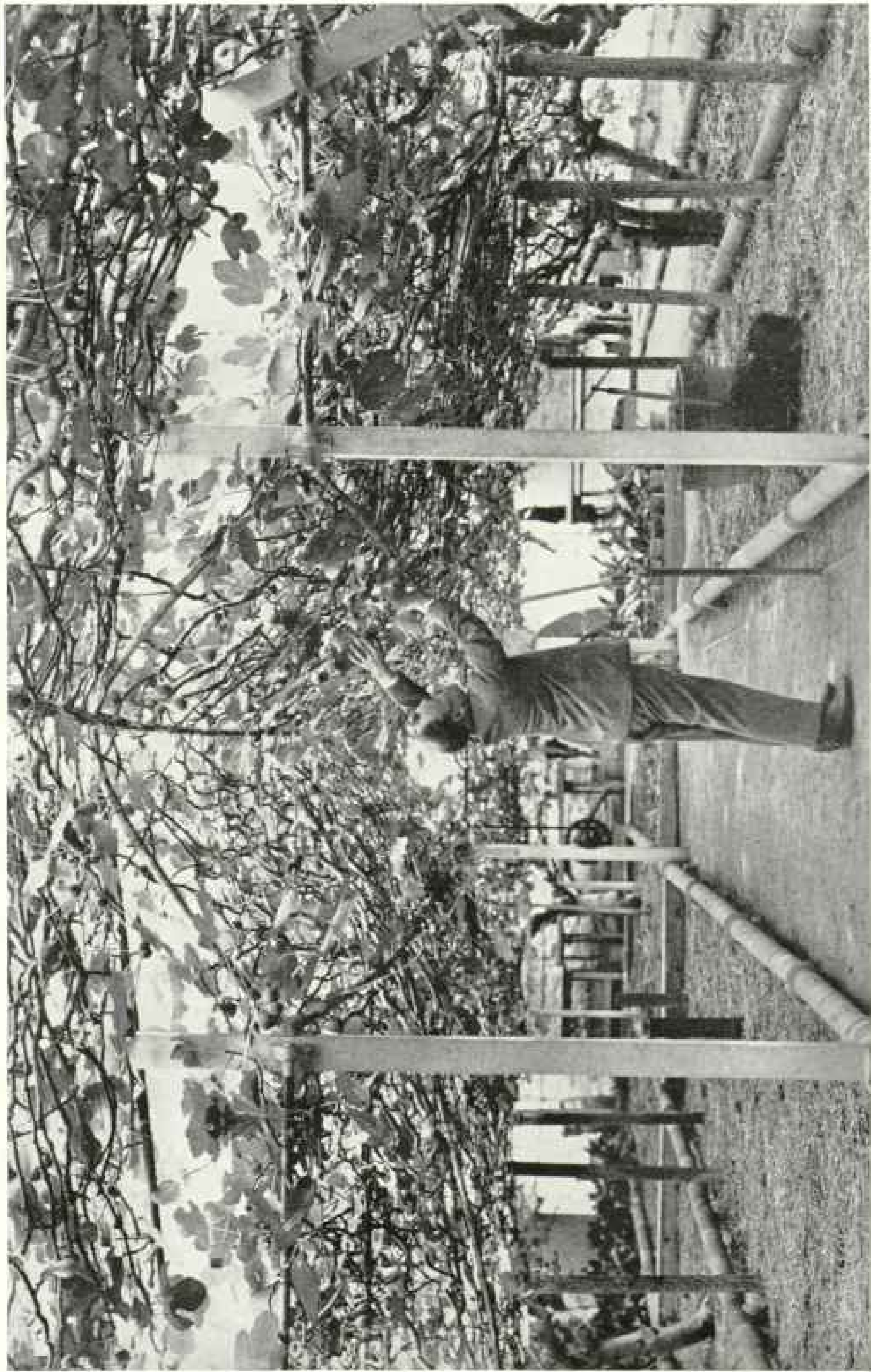
Labetarmach pull their boats up on the beach and weigh the catch in their side yards. They sell it to the wholesaler who makes his rounds daily. Behind the homes squat big greenhouses in which the tomatoes, melons, and grapes are nurtured.



Photograph by H. Anthony Stewart

BOYS AND COWS SHARE THE SCHOOL YARD FOR RUGBY AND PASTURAGE IN THIRTTY GUERNSEY

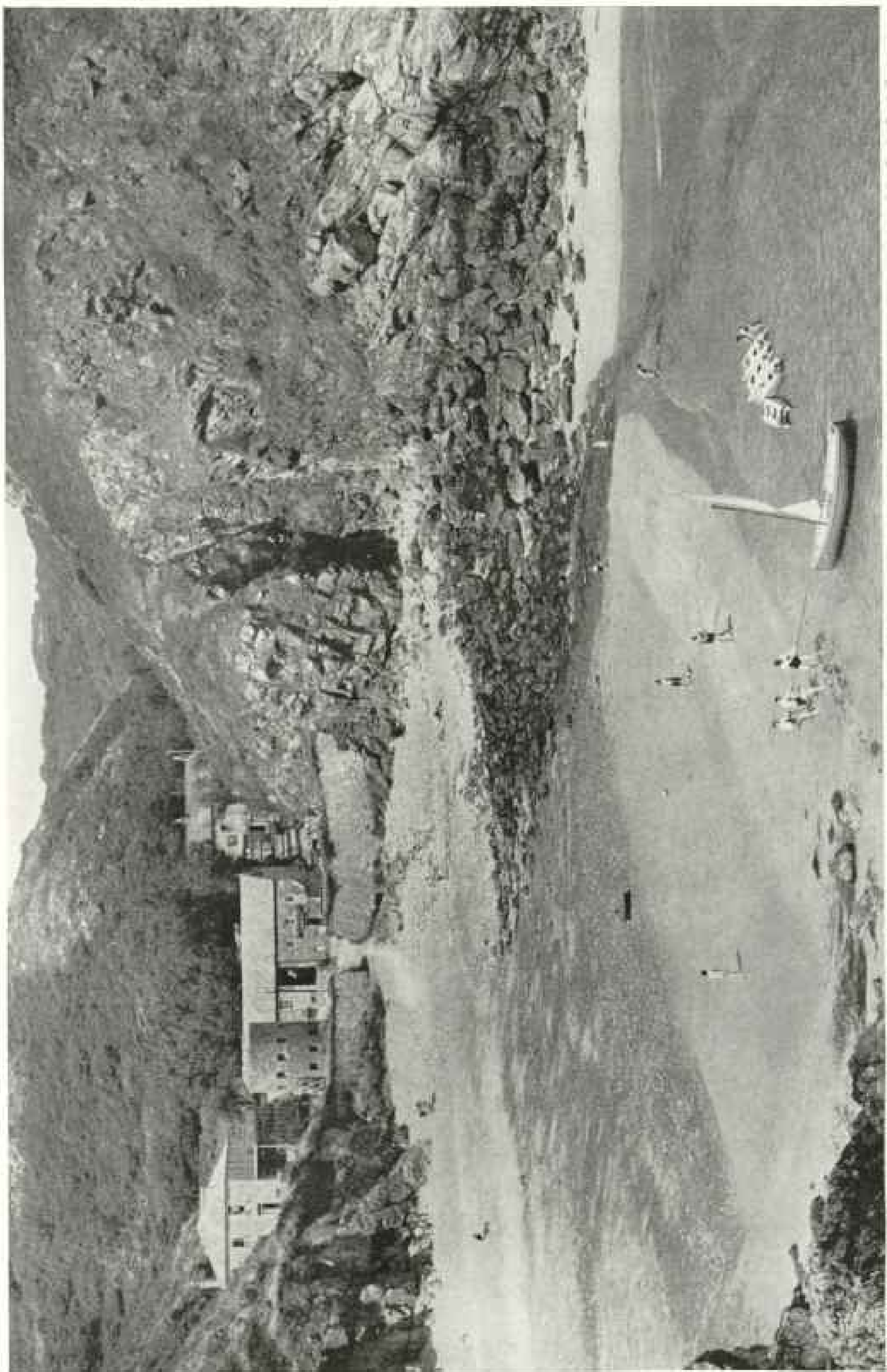
Cattle are tethered when feeding, thus cropping the fine turf more closely than when they range at will (page 376). Every few hours the stakes are moved.



Photograph by H. Anthony Stewart

THIS GROWER PICKS RIPE FIGS FROM THE TREES IN HIS GARDEN OF GLASS

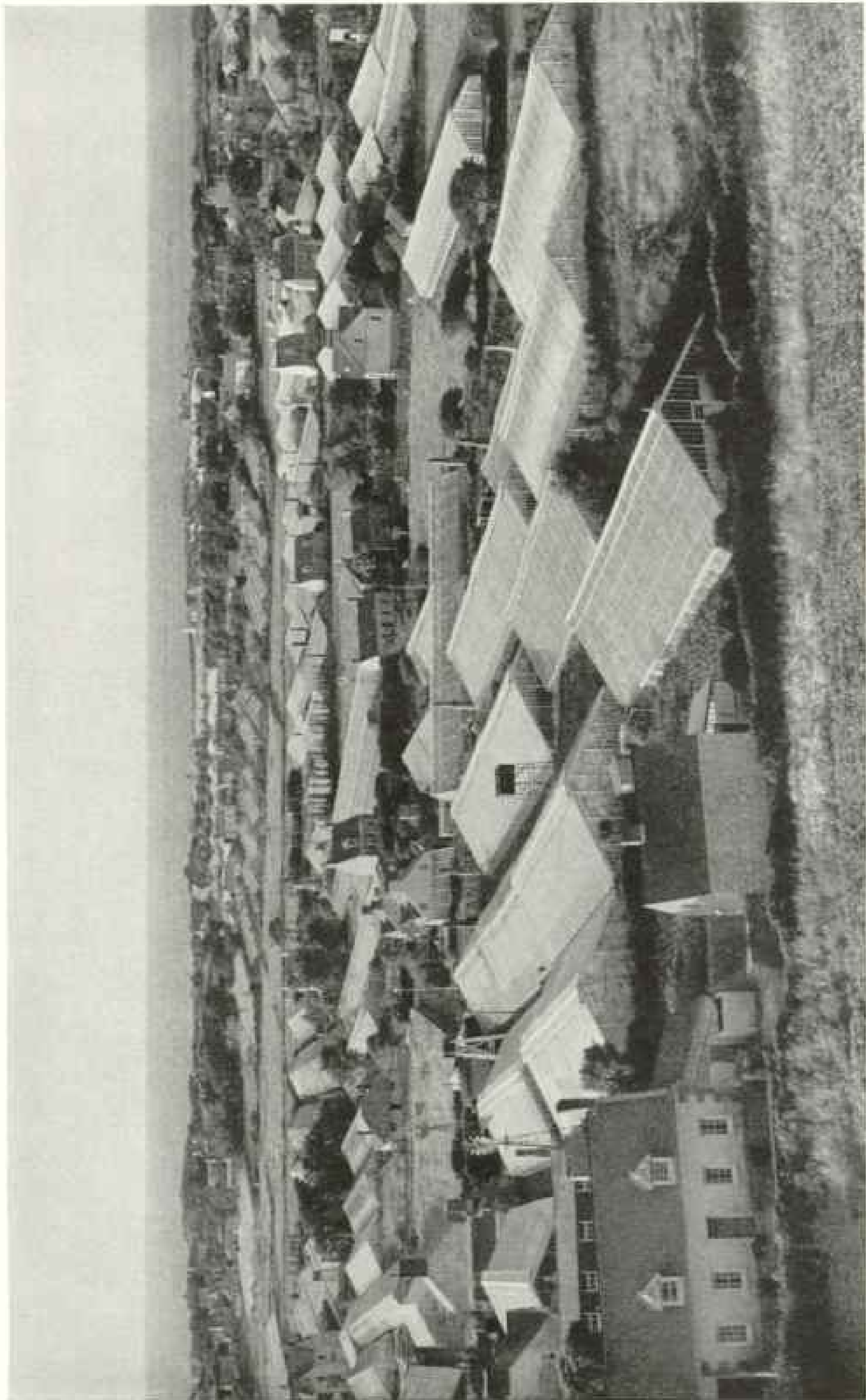
Guernsey's bracing climate and abundant sunshine (page 385), supplemented by bothouses, make the raising of this tropical fruit possible on a commercial scale. Both full-grown and young trees thrive on this indoor farm, which also produces melons, grapes, and the ever-present tomatoes. Flowers grow in profusion and large shipments are made to England (Plate III).



Photograph by R. Anthony Stewart

RELIC OF NAPOLEON'S DAYS, A MARTELLO TOWER WATCHES OVER GUERNSEY'S FAVORITE WATERING PLACE

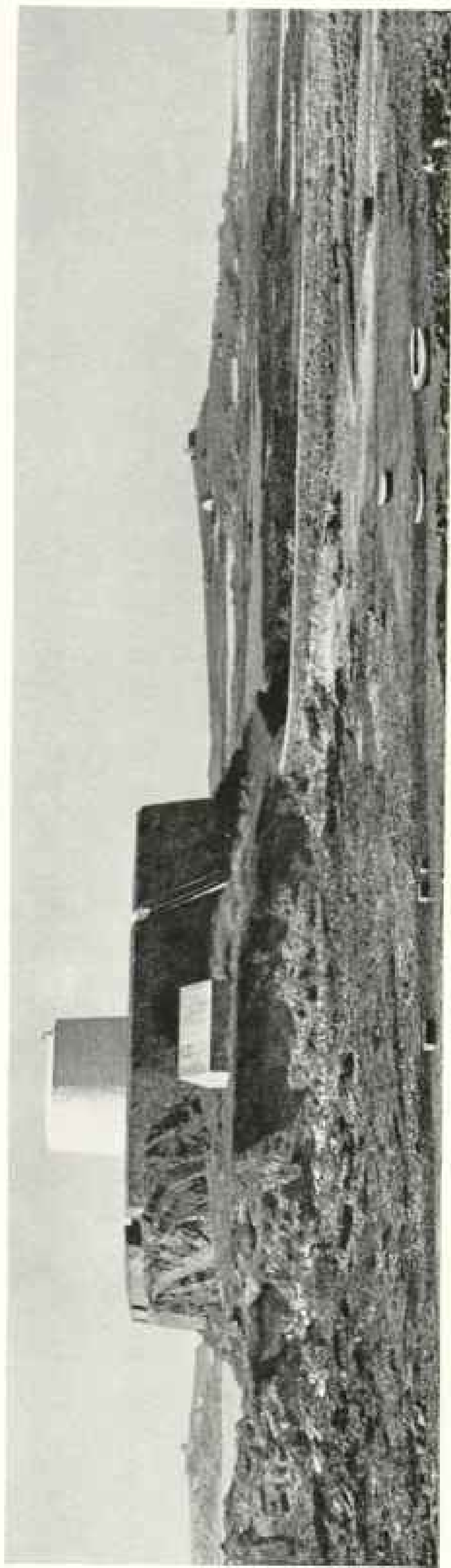
Bathhouses are unknown at Fernain Bay, for the rocks supply ample shelter for discobing. Scores of round stone lookouts are located at possible landing places encircling the island (page 365). Grass and evergreen shrubs cover the steep cliffs and soften the harsh appearance of black rocks.



Photograph by R. Anthony Stewart

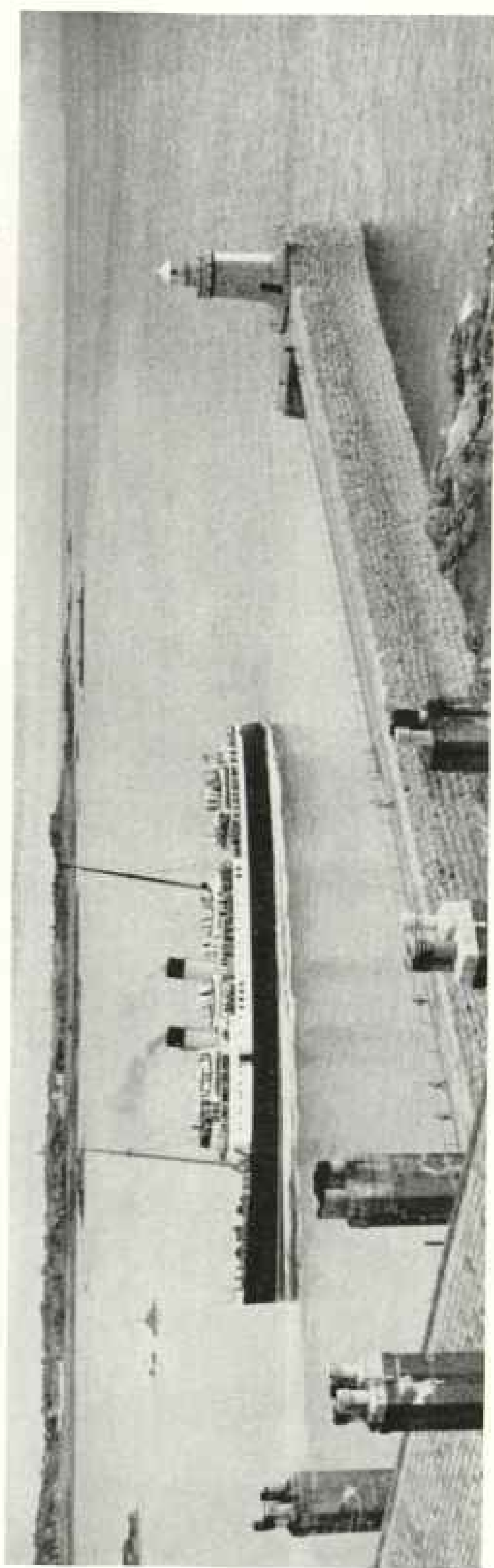
ISLANDERS WORK IN GLASS HOUSES, BUT LIVE IN HOMES OF STONE

Guernsey's "growing industry" has mushroomed so fast that the original character of the landscape has been greatly altered. Hundreds of acres are under glass. Even beans, peas, and potatoes are raised profitably in winter (page 385). Fig, lemon, and peach trees are planted indoors, their branches trained to grow flat against the walls and cling beneath the low roofs. Most of the stone farm dwellings belong to an age when commercial greenhouses were unknown here.



FORT GREY, BUILT TO OPPOSE THE FRENCH, NOW STANDS DESERTED, OVERLOOKING ROCQUAINE BAY

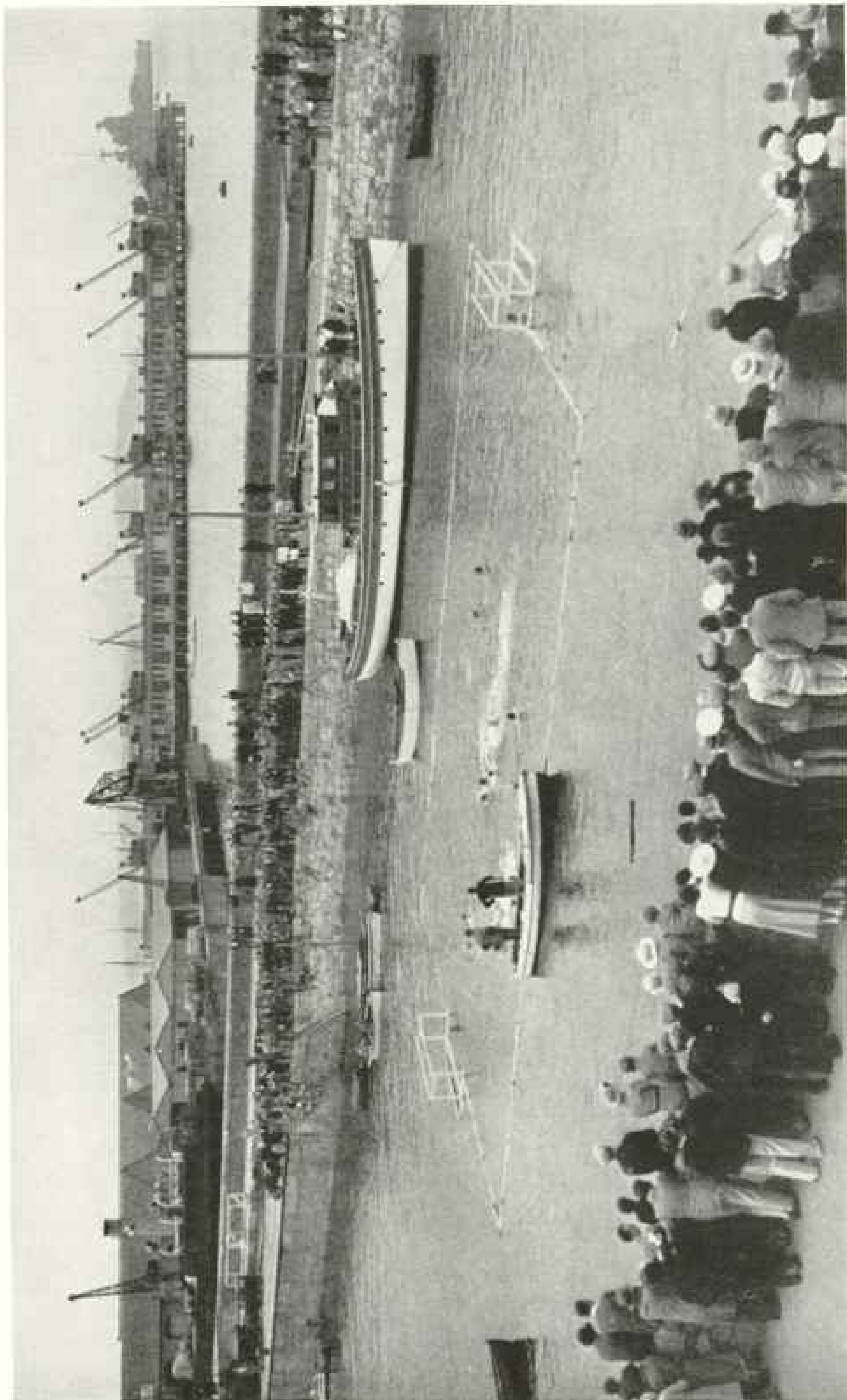
At high tide the water laps close to the base of the stronghold. Another, named for Admiral Lord Saumarez, rises in the background.



Photographs by B. Anthony Stewart

SIGNALS FROM CASTLE CORNET TOLD ST. PETER PORT THIS DAILY PASSENGER BOAT HAD BEEN SIGHTED

Now it is backing out of the narrow harbor. When a freight ship appears, the watchman hoists the company banner, or rings a bell if there is a fog.



Photograph by H. Anthony Stewart

ISLANDERS AND SAILORS CLASH AT WATER POLO IN A FLOATING COURT LAID OUT IN THE HARBOR OF ST. PETER PORT

In what is often called the most grueling of all sports, swimmers from H. M. S. Nelson (right background) try their luck against the Guernsey "sea dogs." Onlookers marvel at the stamina and ability of the contestants; almost anything is legal but drowning! The most thrilling moment in such a game, perhaps, is when a player taken the ball, submerges, and, after swimming under water, suddenly pops up alongside the surprised goalie and scores. From a small boat on the side lines game officials watch for such infractions as ducking a player who is more than four feet from the ball or deliberately kicking an opponent, but they will permit a contestant to hold another under water until he lets go the ball. Gay ropes hold the side lines and wooden goal posts in place.

coast, and the bulbs which were a part of the cargo washed ashore and took root. That is the origin of this lovely red lily, which blooms once in seven years.

Legend ascribes a more romantic beginning. A fairy carried off a beautiful Guernsey girl to be his bride. Among all the joys of fairyland she could not forget her father and mother and brothers; so her fairy husband gave her a bulb, which she planted on the sand above Vazon Bay. From this bulb, to comfort her family, grew the odorless, fragile blossoms, decked with fairy gold, which thrive best in the land of their birth.

WHERE HUGO LIVED AND WROTE

On the way from New York to Plymouth I had read Victor Hugo's *Toilers of the Sea*. When I came to Guernsey I visited Hauteville House, where the writer lived during 14 years of his exile (Plate VIII and pages 369, 387, and 388).

In the tiny room at the top of the house I stood at his writing desk and looked down on busy St. Peter Port, on Castle Cornet, and beyond, where France was a dark line on the horizon. I wandered through the enormous rooms below, left exactly as they were in Hugo's time, trying to recapture the spell which produced *Les Misérables*, *L'Homme Qui Rit*, and *Toilers of the Sea*.

One day I called on an old gentleman who had been editor of a Guernsey newspaper for more than sixty years.

"Victor Hugo! I knew him well. As a boy I was taken there every week by my father, for luncheon. Would you like to see some photographs?"

For an entire afternoon he showed me his pictures of the Hugo family, his autographed copies, and his collections of paper-bound first editions.

"No, he was not happy here," explained M. Marquand. "He made few friends and seldom invited people to his house. Yet he was gay and witty at our luncheons,

unless someone interrupted him while he was talking. I can still remember his flashing eyes, his angry words: 'It is I who speak. Attention!'"

It is not easy to realize, while watching "chip baskets" of tomatoes loaded on the steamers, that St. Peter Port Harbor has had such an exciting past. Pirates have swaggered here, smugglers have crept down the causeways on dark nights, kings and queens have been welcomed by cheering throngs.

Castle Cornet was defended for almost nine years by a handful of loyal subjects of King Charles I. Besieged by their fellow countrymen by land, and by the ships of Cromwell by sea, they held out bravely until forced to capitulate. The stone corridors once echoed to the tramp of sentries and the ring of musket fire, but now the strains of the latest swing music sound from the guardhouse where the garrison dance orchestra is practicing (Plate VI).

TEAS, BULBS, AND FEUDAL TENURES

My telephone was constantly ringing. Would I care to see some old Guernsey costumes? The Misses Le Pelley would be pleased to show me some (Plate IV). That call resulted not only in a sight of the precious garments, modeled by their owners, but in a memorable tea.

Would I care to meet someone who knows all about fiefs and feudal tenures? Would I like to go fishing with Mr. E. Phillips Oppenheim? Would I have room in my luggage for some rare bulbs? Had I heard about their museum? Would I care to attend another cattle show?

On my daily walks through the ten parishes, total strangers greeted me by name. To everyone I was "the American," someone who had been interested enough in their island to come all the way across the sea to visit it. And when I left, "We won't say goodbye," they told me, "for you'll be back!"

Notice of change of address of your NATIONAL GEOGRAPHIC MAGAZINE should be received in the offices of the National Geographic Society by the first of the month to affect the following month's issue. For instance, if you desire the address changed for your May number, The Society should be notified of your new address not later than April first.

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To carry out the purposes for which it was founded fifty years ago, the National Geographic Society publishes this Magazine monthly. All receipts are invested in The Magazine itself or expended directly to promote geographic knowledge.

Articles and photographs are desired. For material which The Magazine can use, generous remuneration is made. Contributions should be accompanied by addressed return envelope and postage.

Immediately after the terrific eruption of the world's largest crater, Mt. Katmai, in Alaska, a National Geographic Society expedition was sent to make observations of this remarkable phenomenon. Four expeditions have followed and the extraordinary scientific data resulting given to the world. In this vicinity an eighth wonder of the world was discovered and explored—"The Valley of Ten Thousand Smokes," a vast area of steaming, spouting fissures. As a result of The Society's discoveries this area has been created a National Monument by proclamation of the President of the United States.

The Society cooperated with Dr. William Beebe in a deep-sea exploration of undersea life off Bermuda, during which a world record depth of 3,026 feet was attained August 15, 1934, enabling observations of hitherto unknown submarine creatures.

The Society also had the honor of subscribing a substantial sum to the expedition of Admiral Peary, who discovered the North Pole, and contributed \$100,000 to Admiral Byrd's Antarctic Expeditions.

The Society granted \$25,000, and in addition \$75,000 was given by individual members, to the Government when the congressional appropriation for the purpose was insufficient, and the finest of the giant sequoia trees in the Giant Forest of Sequoia National Park of California were thereby saved for the American people.

The Society's notable expeditions to New Mexico have pushed back the historic horizons of the southwestern United States to a period nearly eight centuries before Columbus crossed the Atlantic. By dating the ruins of the vast communal dwellings in that region, The Society's researchers have solved secrets that have puzzled historians for three hundred years. The Society is sponsoring an ornithological survey of Venezuela.

On November 11, 1935, in a flight sponsored jointly by the National Geographic Society and the U. S. Army Air Corps, the world's largest balloon, *Explorer II*, ascended to an officially recognized altitude record of 72,395 feet. Capt. Albert W. Stevens and Capt. Orvil A. Andersen took aloft in the gondola nearly a ton of scientific instruments, and obtained results of extraordinary value.

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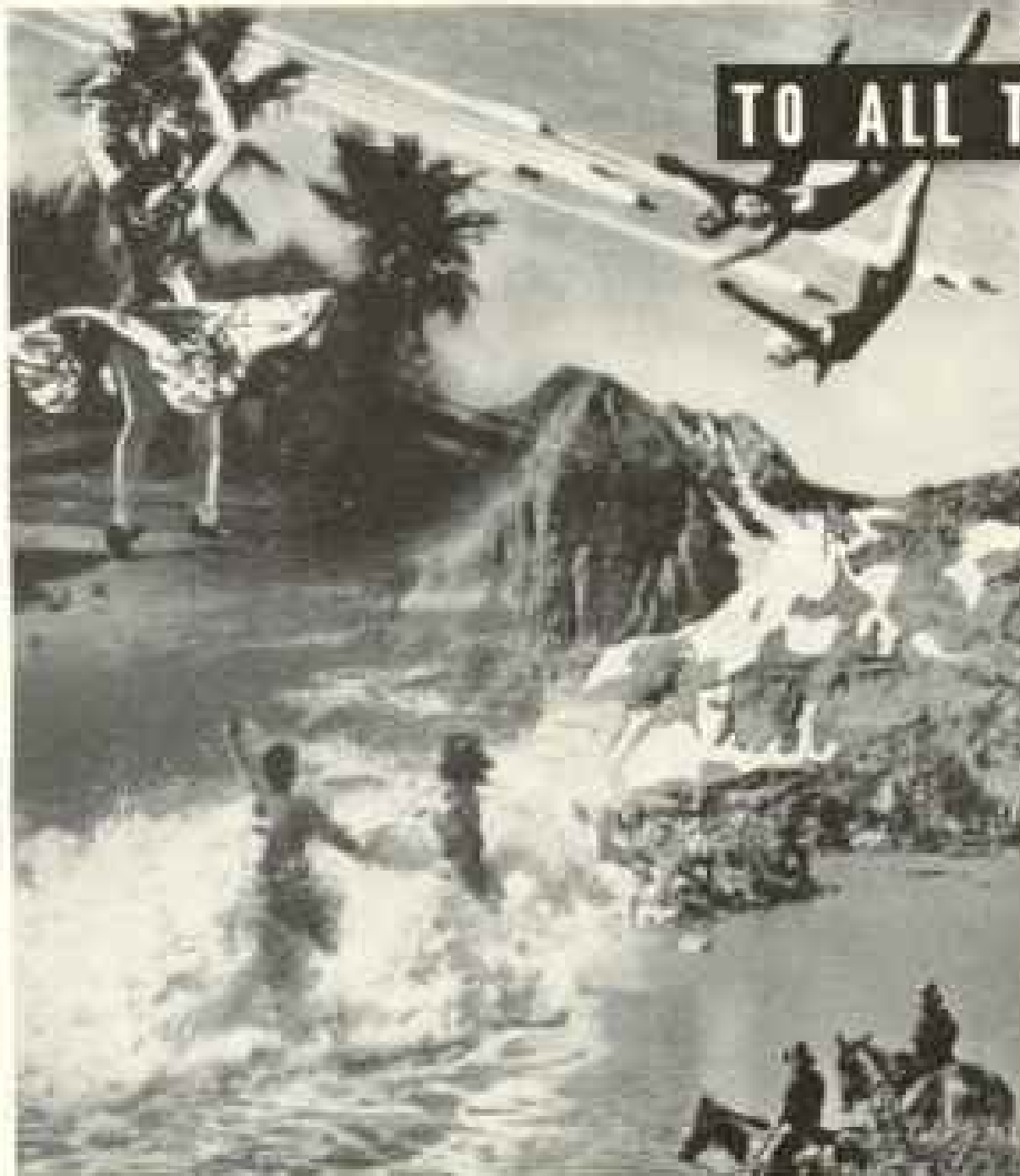
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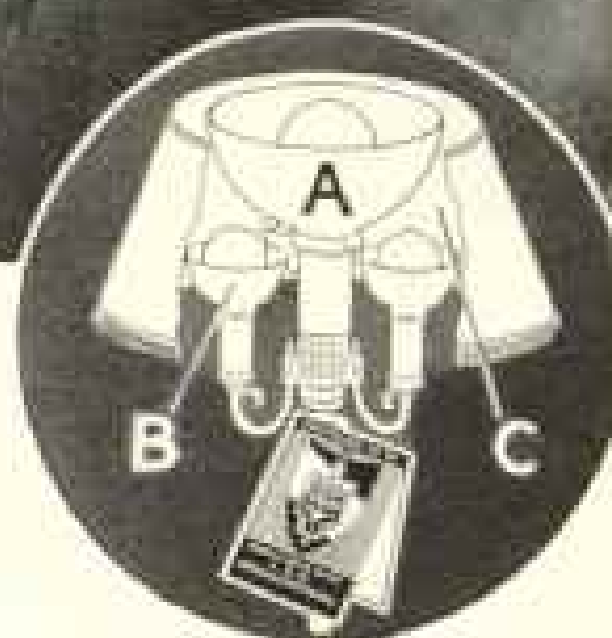
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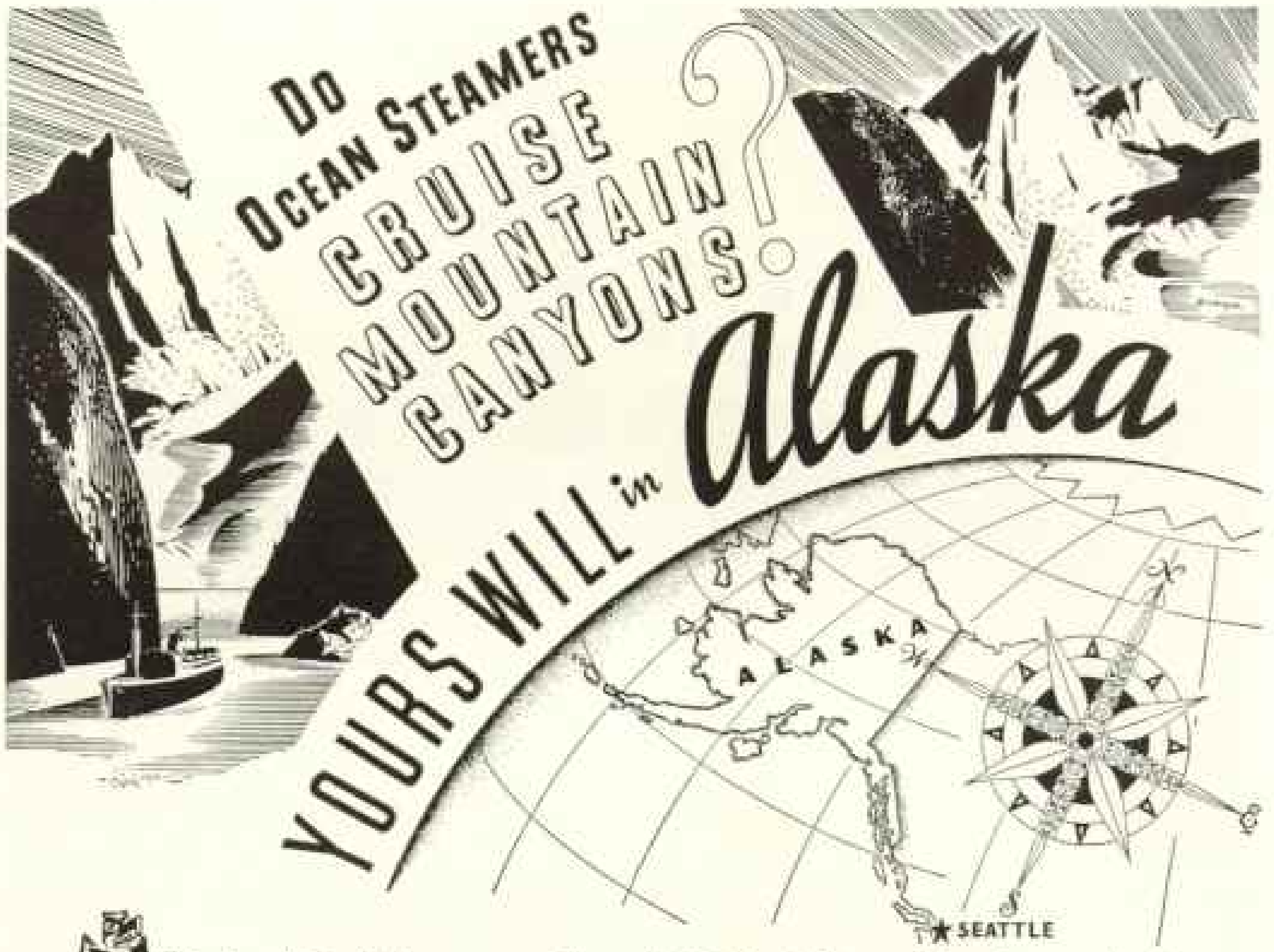
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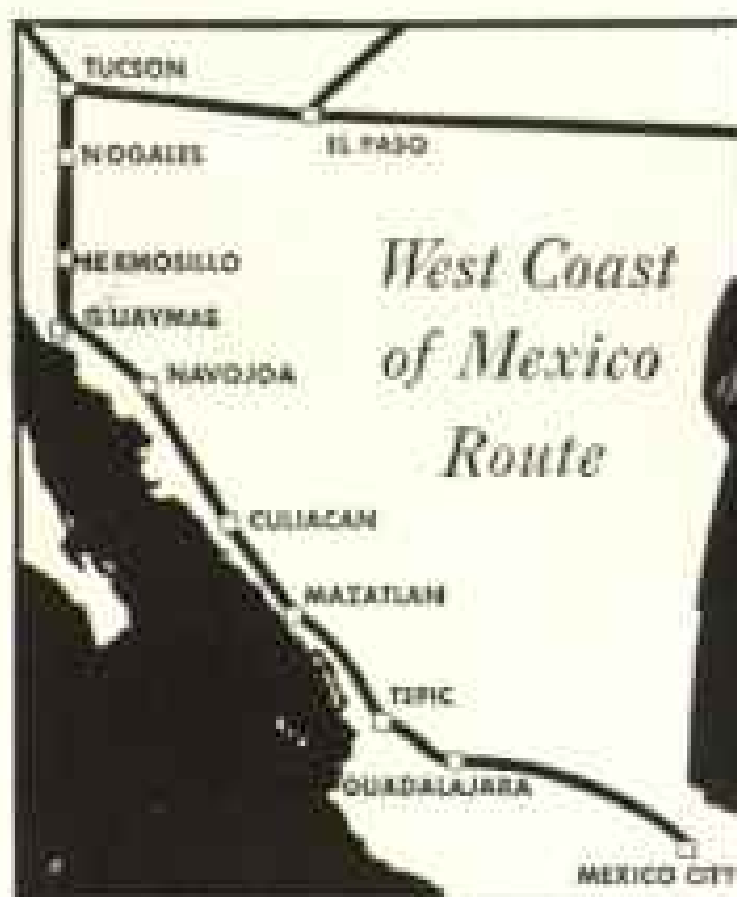
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THE BEST WAY to see Mexico is by train. You speed right through the heart of the country, through dozens of picturesque villages where the arrival of the train is the big event of the day.



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Southern Pacific offers you a simple way to see twice as much of Mexico: go by train and go one way, return another, using the romantic West Coast Route one way. As the map shows, this route starts at Tucson, Arizona, and skirts the West Coast of Mexico, touching Guaymas (stop



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Linoleum, Lamp Shades, Bare Floors—Tools for these and many other uses—bookshelves, mattresses, radios, clothing—in Handy Cleaning Kit.



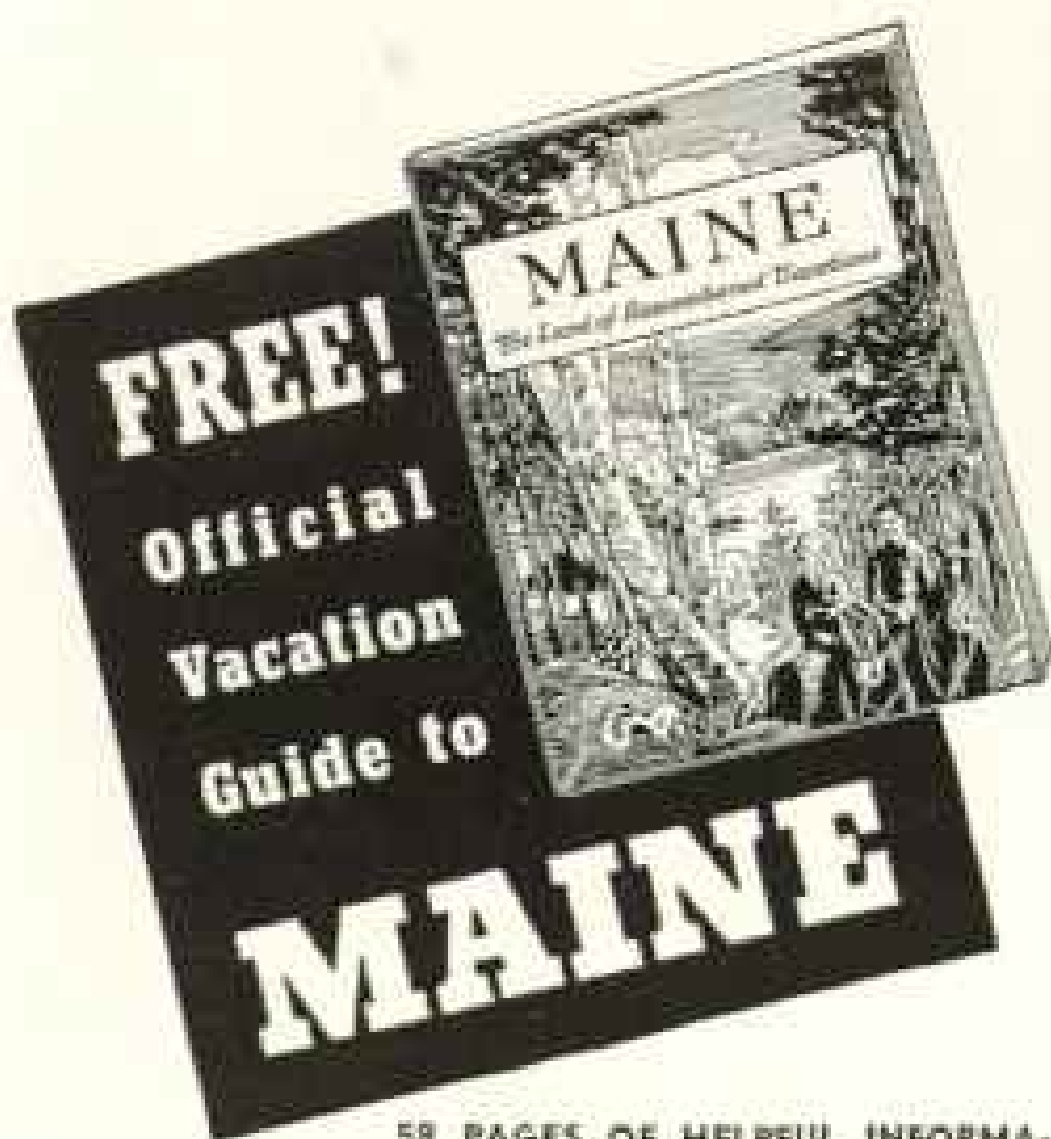
Guarding Against Rug Wear—The heart of Hoover Cleaners is this patented Agitator. Positive Agitation revives color, fluffs nap, removes grit. *Guaranteed to prolong rug life.*

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Three Hoover Cleaners, to suit your needs and budget—One Fifty Cleaning Ensemble, finest cleaner made; Hoover "300", at only \$49.75; and new, low-priced Model 25

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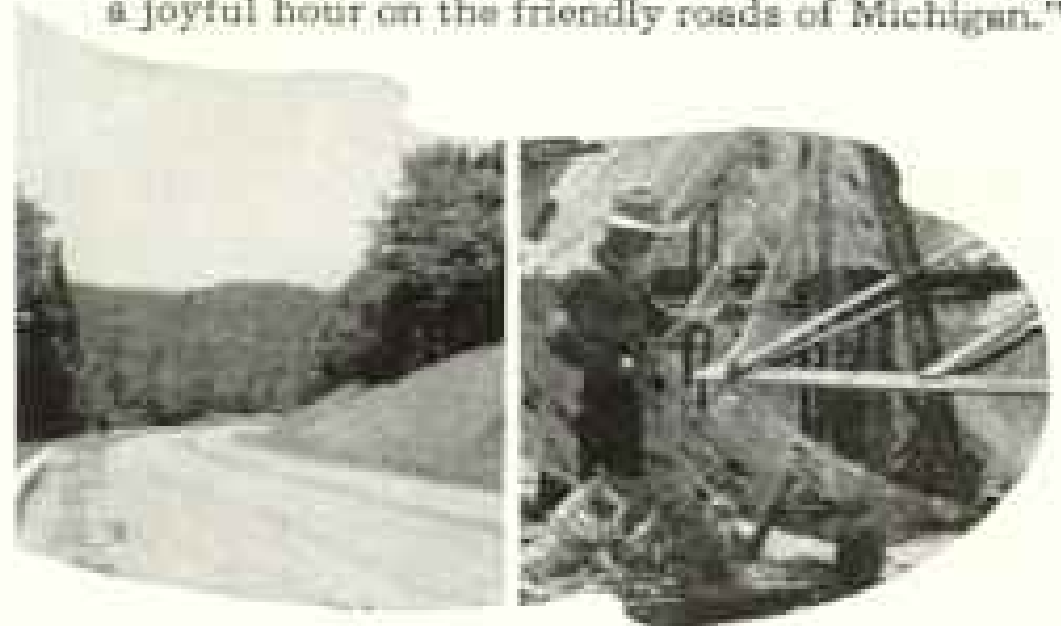


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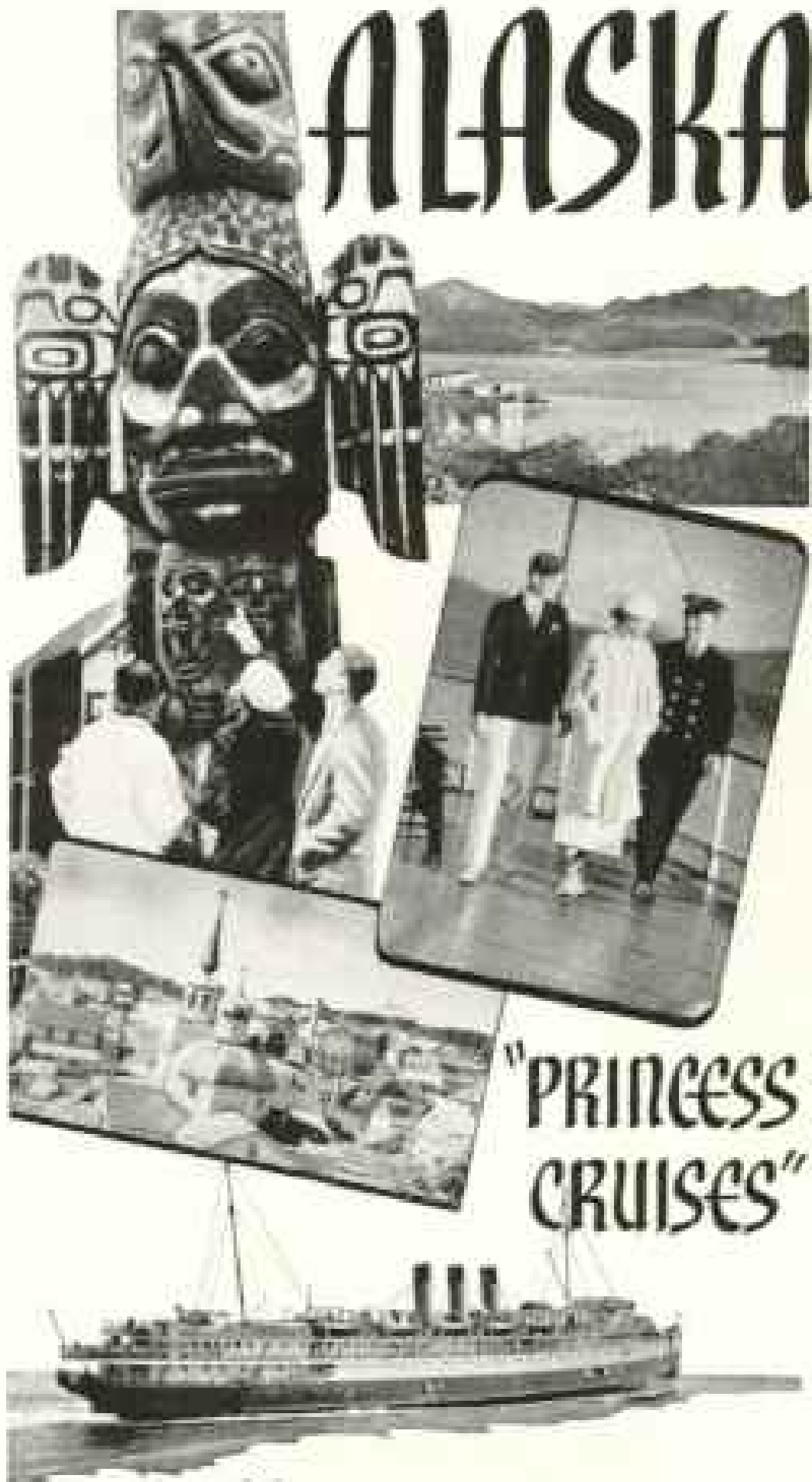
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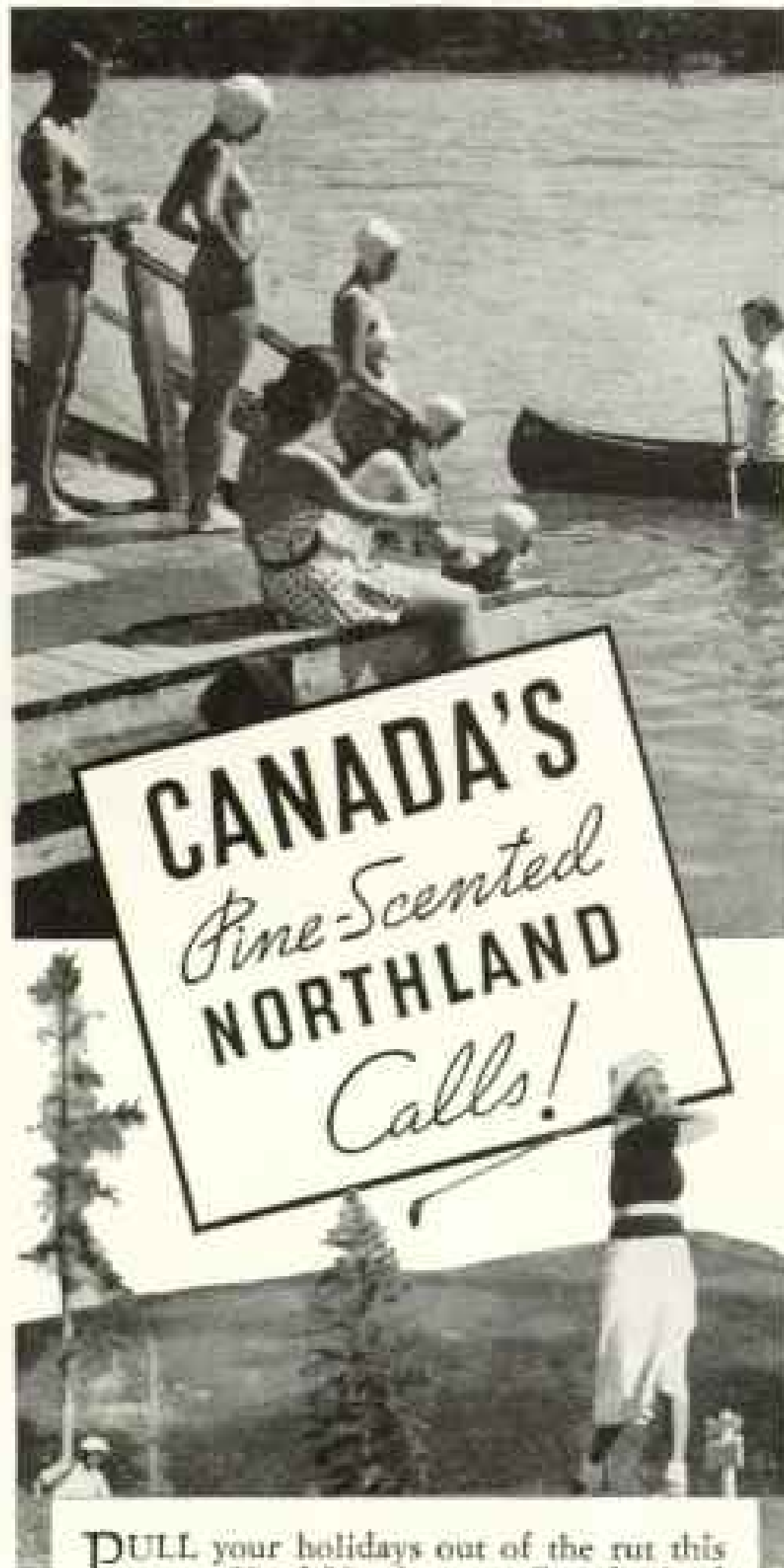


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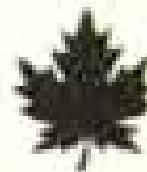
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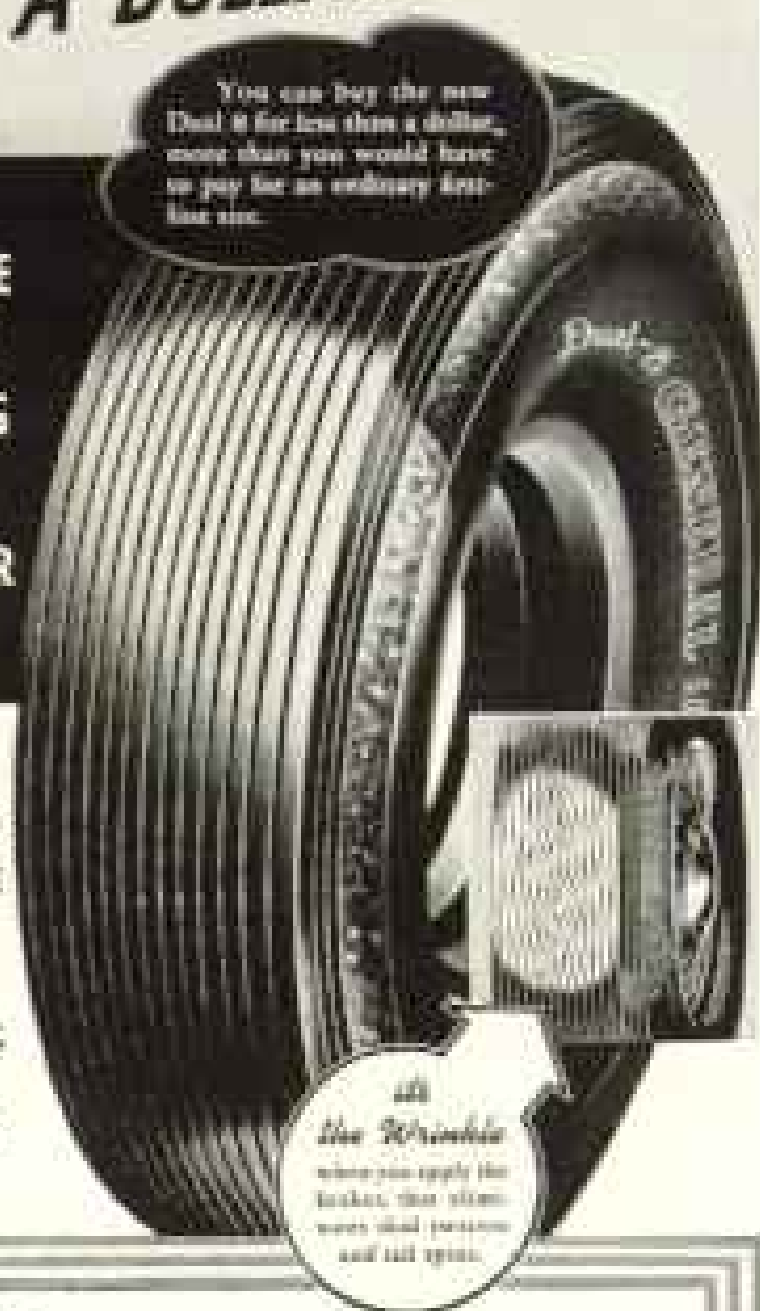
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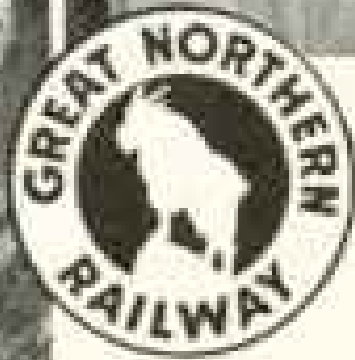
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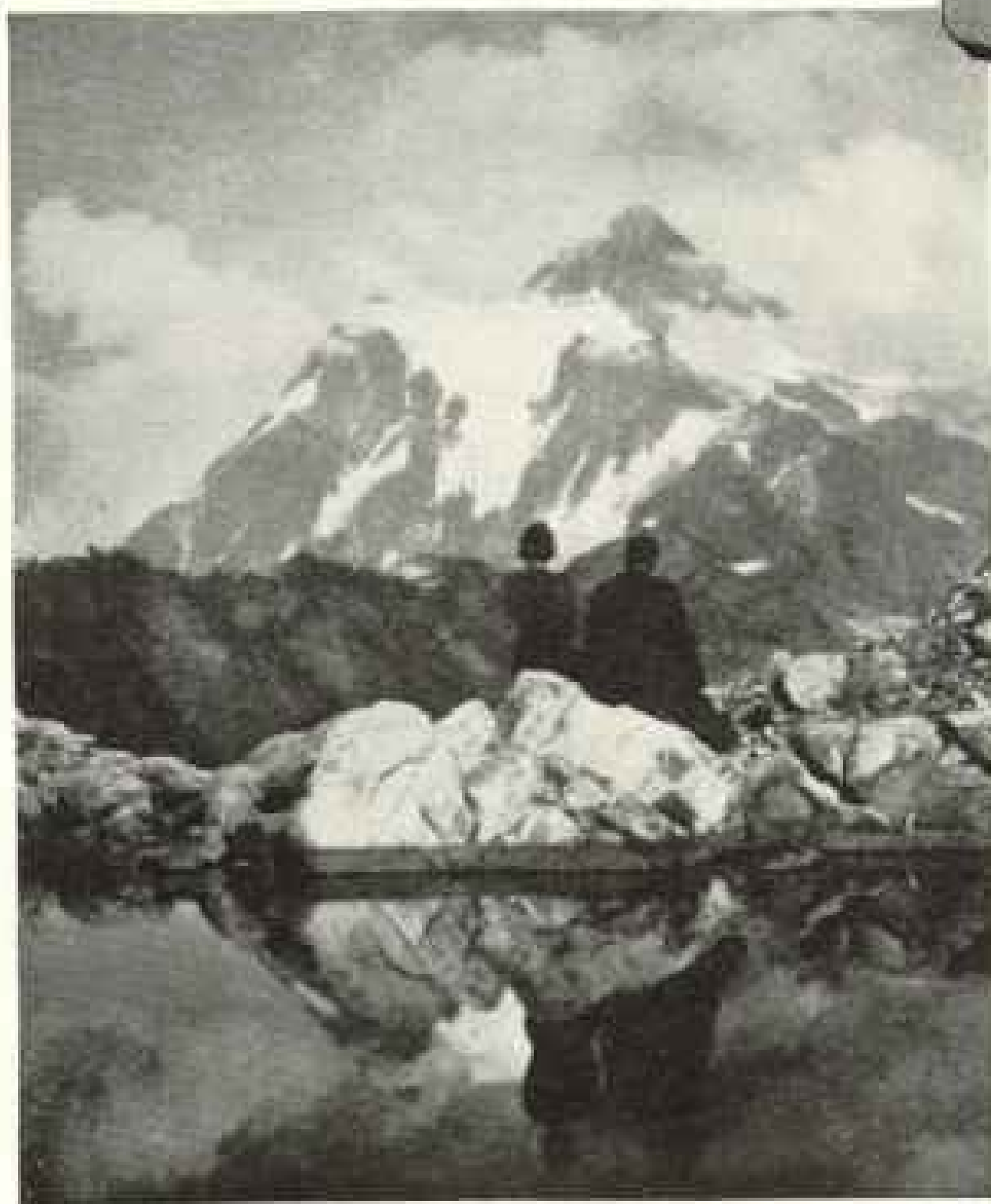
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Have you a fire screen to protect small children from burns and your home from flying sparks? Common among the many causes of fires are unclean or defective chimneys, badly worn electric cords, and oily rags not kept in metal containers.

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Of course, nobody intends to leave deathtraps lying around his home, but there is hardly a house in the land that doesn't contain such potentially dangerous instruments as a decrepit ladder, pails left on the cellar stairs, or matches within the reach of young children. The Metropolitan's free booklet "How Safe is Home?" will help you make your home safer.

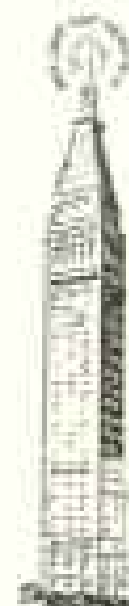


Have you a cabinet for poisons and medicines out of reach of the children—preferably locked? Bottles containing poison should be clearly marked.



Have you a handrail on your cellar stairs and a light illuminating them? All stairways should be well lighted to prevent falls. A rubber mat in the bathtub, small rugs securely anchored and well-constructed railings on balconies and porches reduce the danger of falls.

The booklet "How Safe is Home?" illustrates various rooms in the house, showing where many different kinds of accidents occur, how they are caused, and how to avoid them. A copy belongs in your home. Send for it today.



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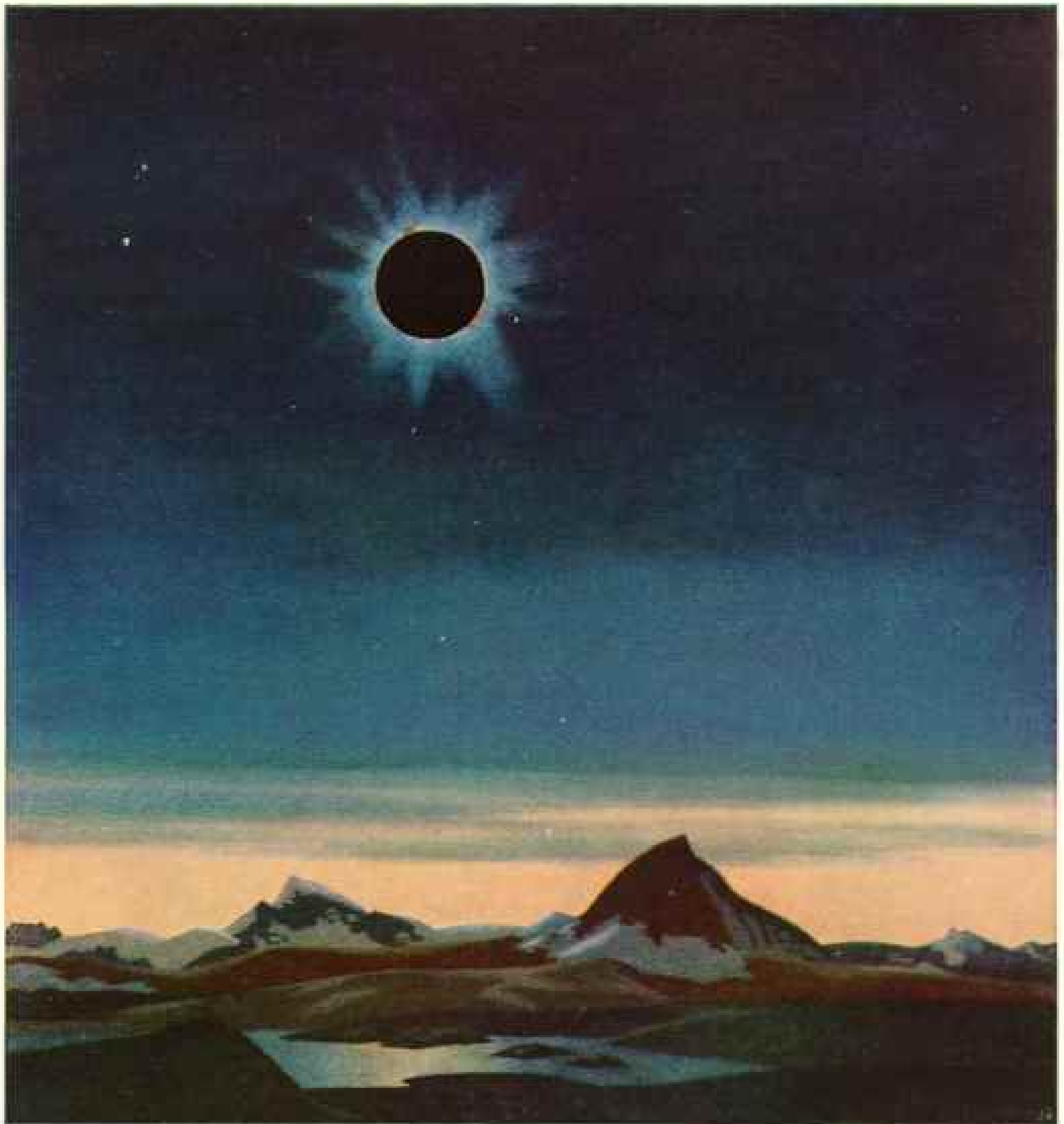
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A Forecast for 2144 A. D.

There will be a total eclipse of the sun visible from this continent on October 26, 2144.

This is not a guess. It is a guarantee. For astronomers can predict the courses of the sun and moon and earth for centuries to come.

Yet science, for all its ability to peer into the future of the solar system, cannot predict the course of your own life for the next 24 hours.

That is why, until the affairs of your daily life become as predictable as the movements of the heavenly bodies, you need protection against unforeseen accidents.

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Charles Carroll of Carrollton, at the laying of the "first stone" of the first commercial railroad in the United States, July 4, 1828.

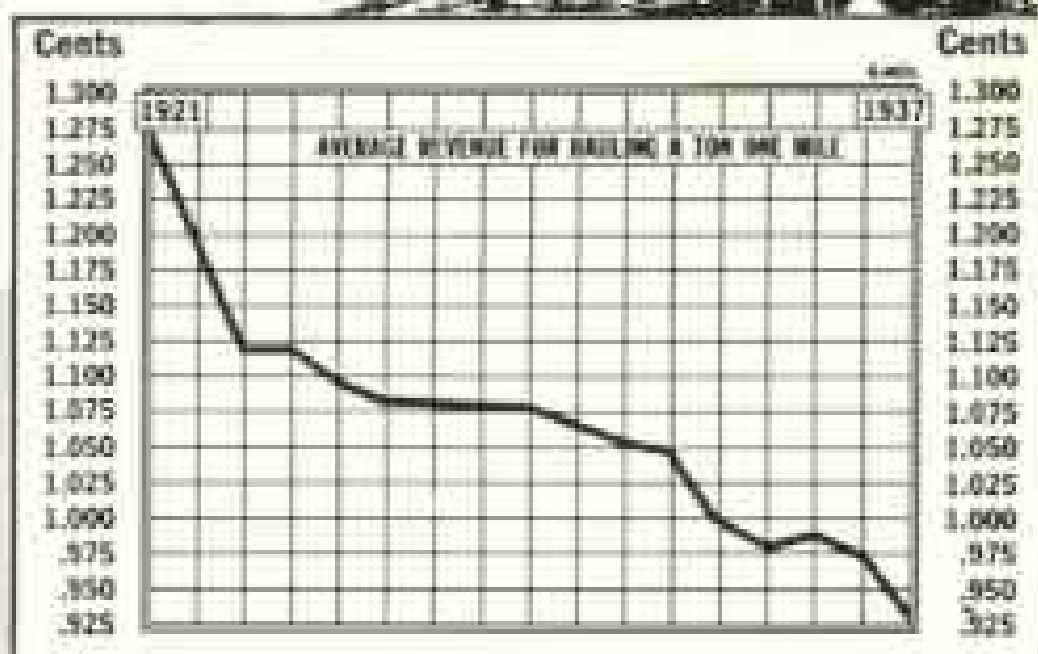
tain its present high level of excellence, the railroads must have additional revenue.

The Interstate Commerce Commission, in its rate decision of October 22, 1937, recognized this situation by such statements as this:

"From the facts of record no other conclusion is possible than that the net earnings of the railroads are now inconsistent...with the conditions necessary for the proper conduct of the public service of railroad transportation by private enterprise."

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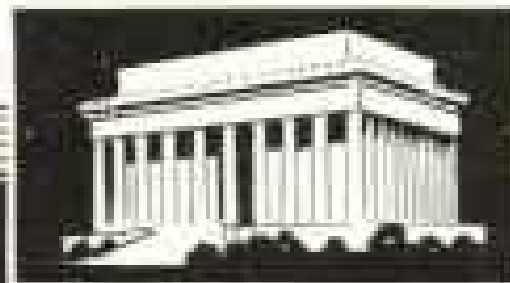
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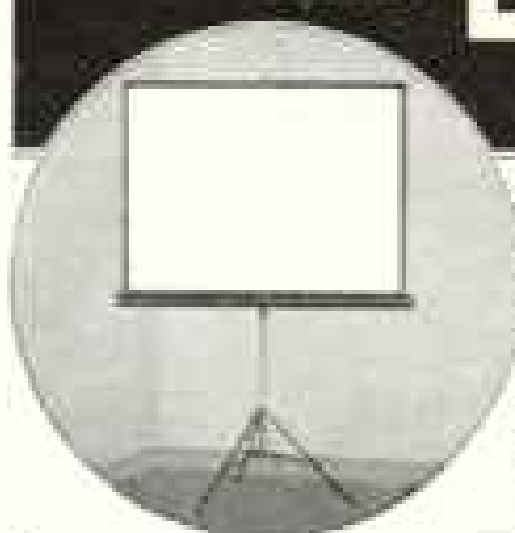
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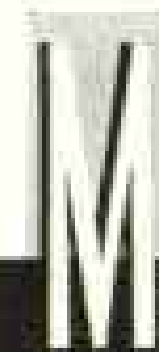
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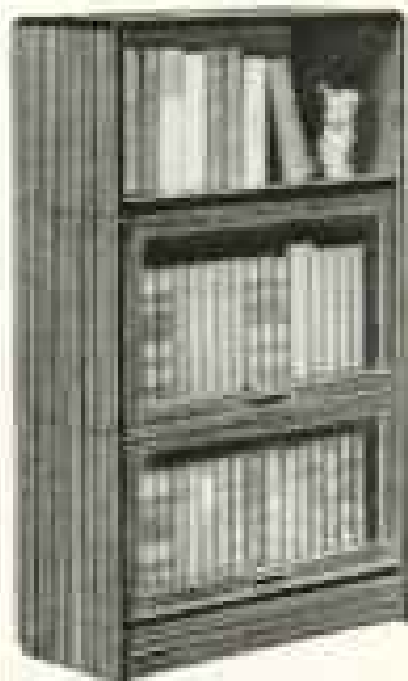
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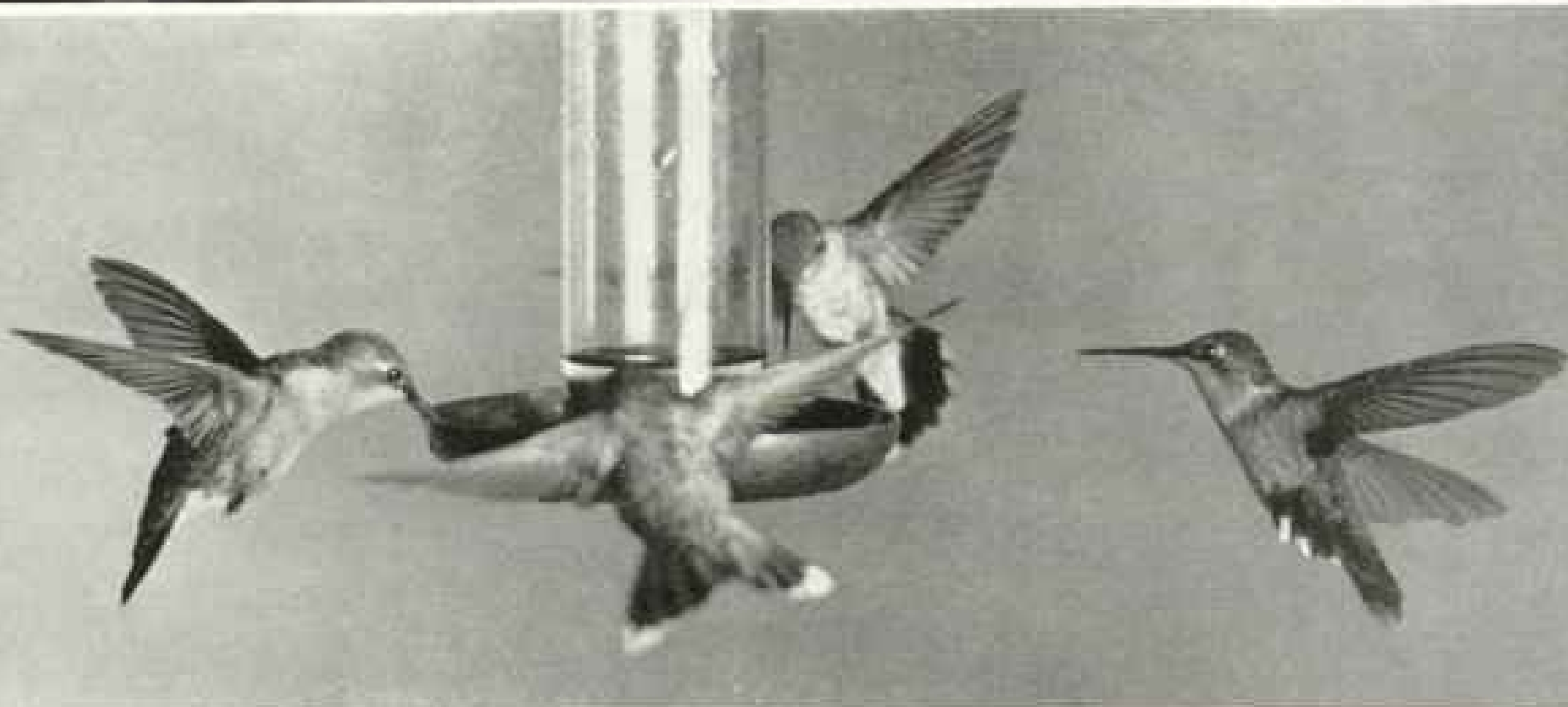


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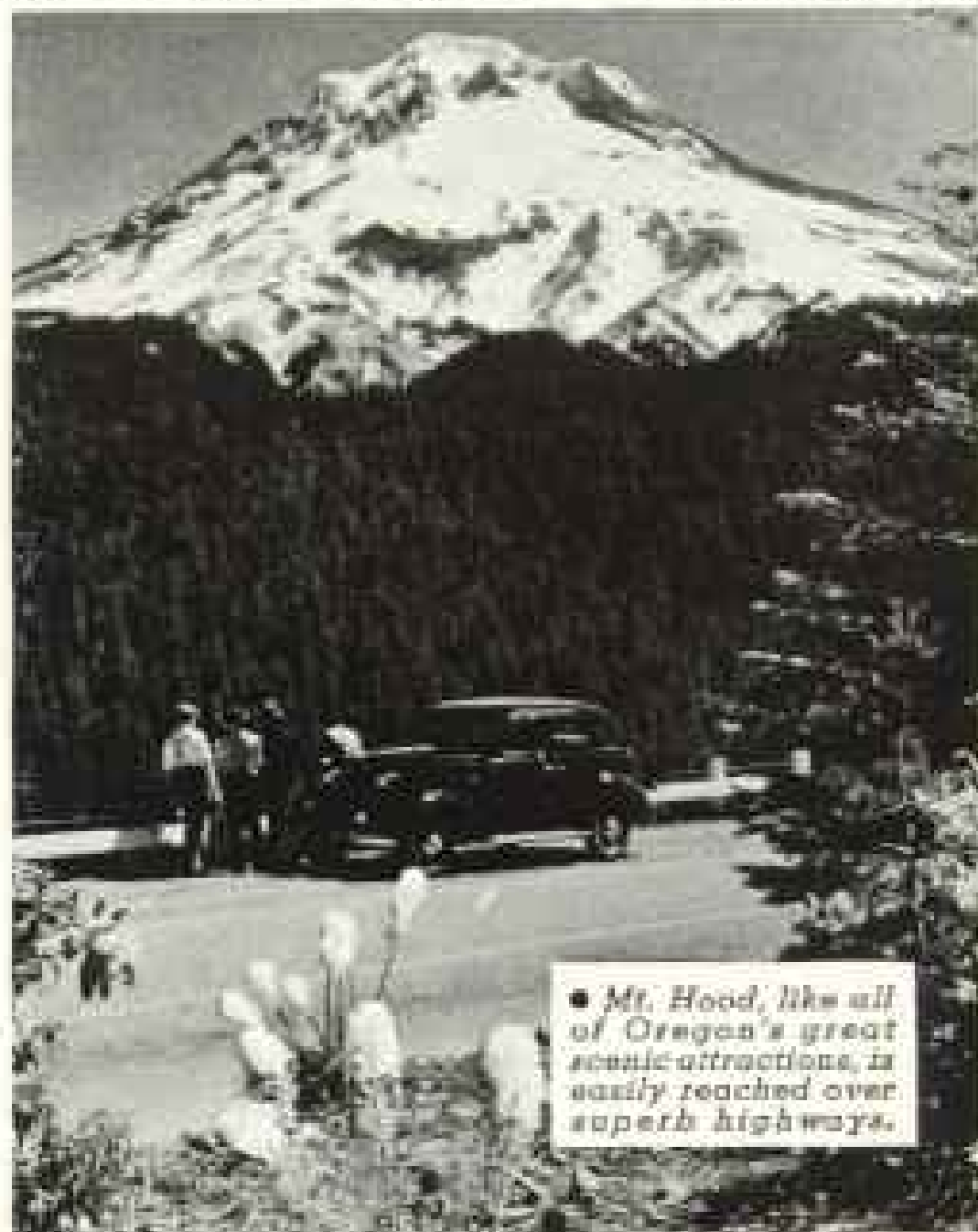
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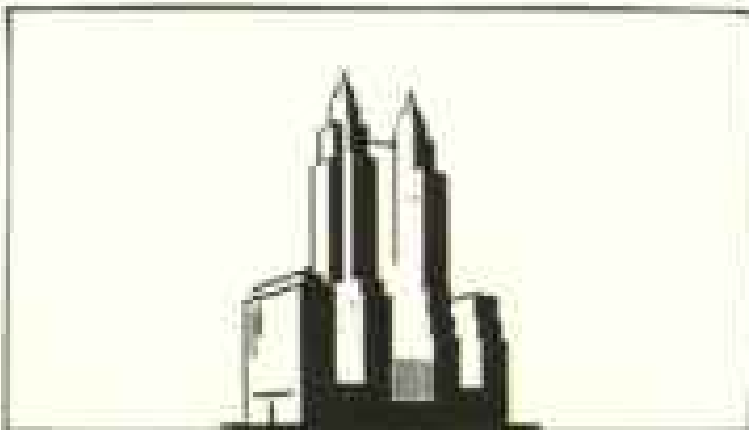
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