

LATIN AMERICA

AMERICA

THE
PANAMA CANAL

REVIEW



Special Edition
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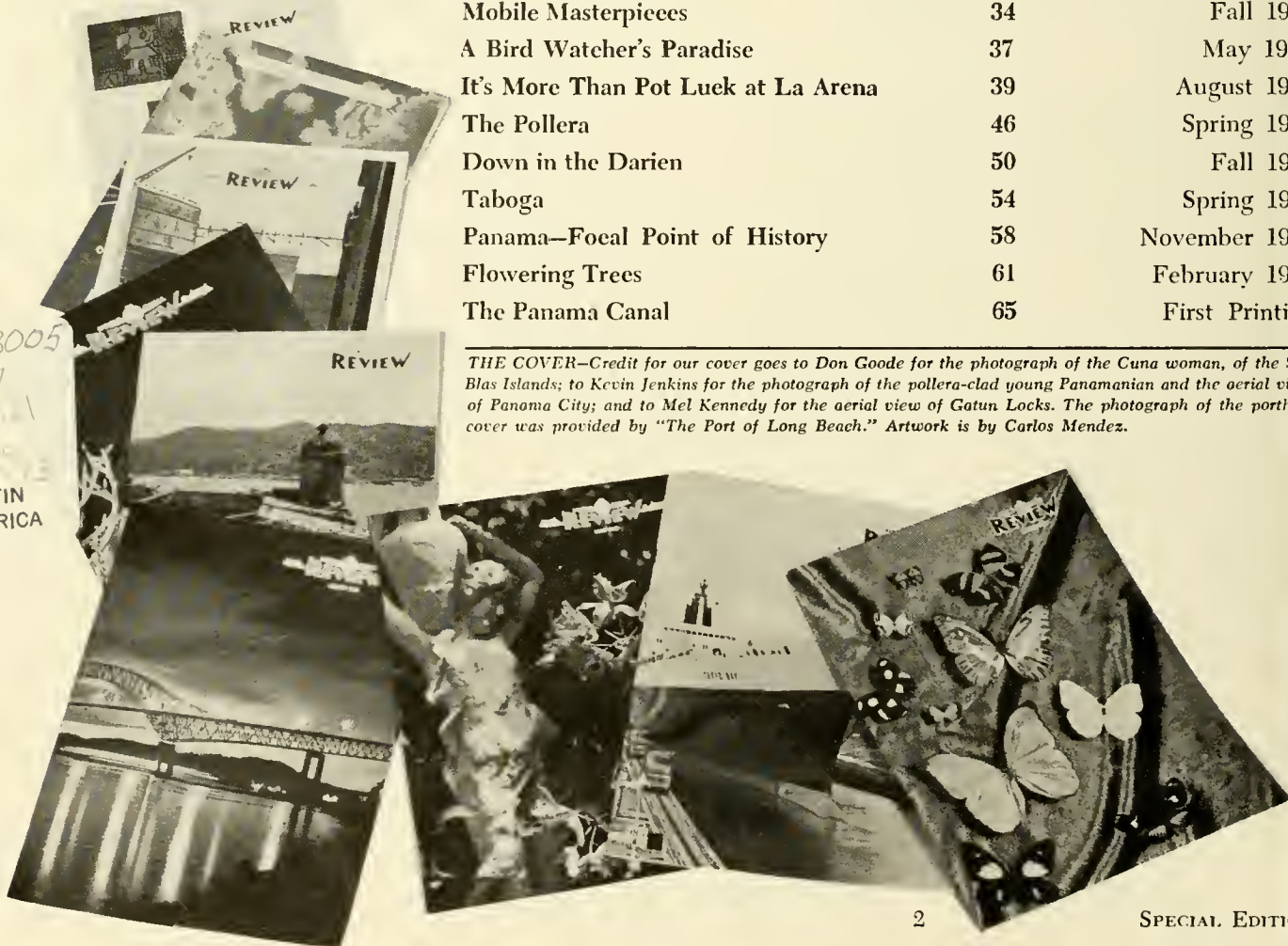
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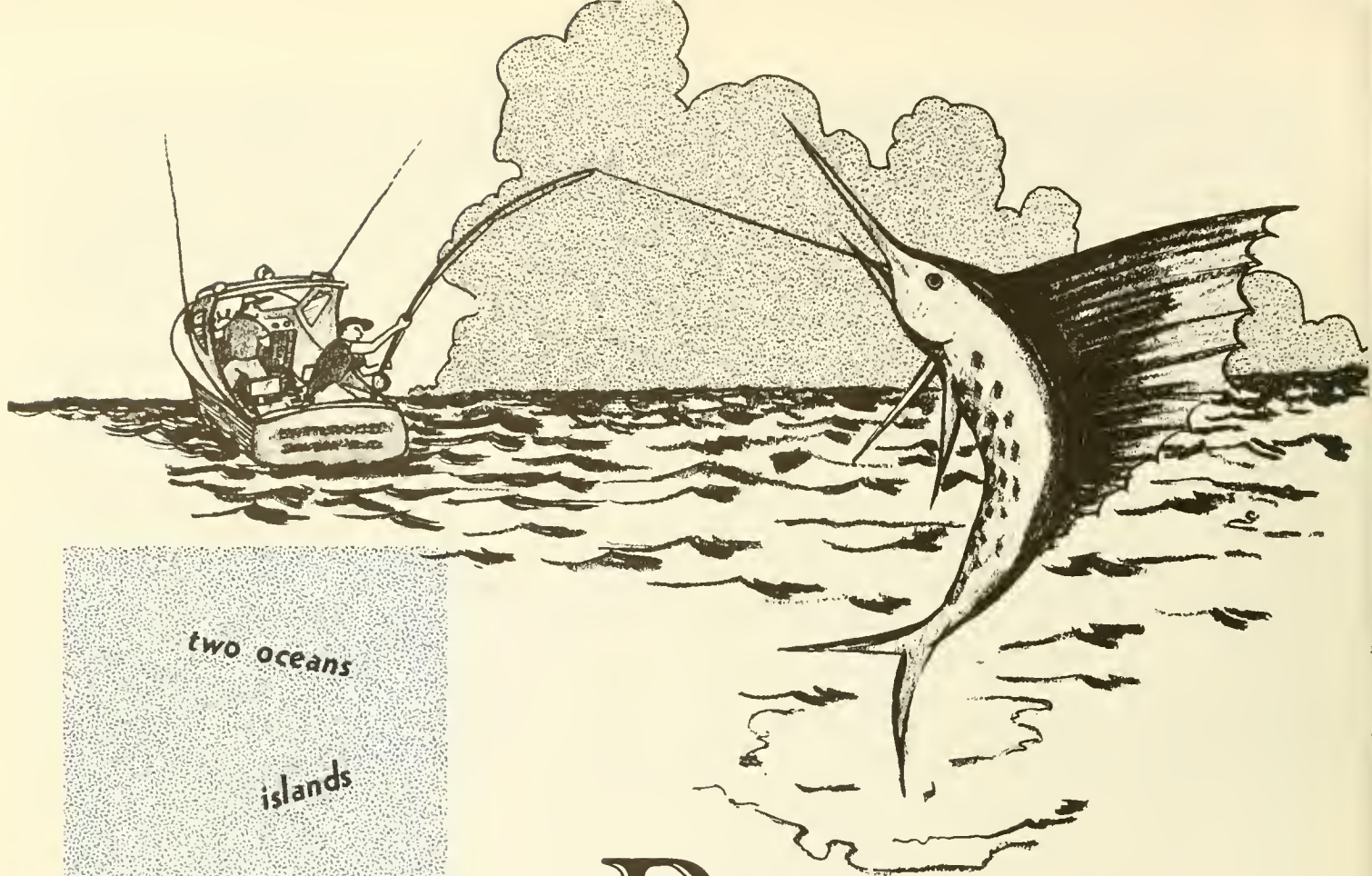
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THE COVER—Credit for our cover goes to Don Goode for the photograph of the Cuna woman, of the San Blas Islands; to Kevin Jenkins for the photograph of the pollera-clad young Panamanian and the aerial view of Panama City; and to Mel Kennedy for the aerial view of Gatun Locks. The photograph of the porthole cover was provided by "The Port of Long Beach." Artwork is by Carlos Mendez.





THE HOLY GHOST ORCHID, the national flower of Panama, appears to have a perfectly formed white dove nestled in each waxy-white cup-shaped blossom. This fragrant orchid blooms from July to September and can be found at low to medium elevations in shaded areas, but commercial collecting has made it increasingly rare in Panama.



Panama

two oceans

islands

gardens

golden frogs

square trees

fishing

hunting

PANAMA IS SMALL, old, and most of the year, green, lush, sundrenched, rain-washed and beautiful. As a residential area or as a crossroads for those who have come and gone since the Spanish conquest more than four centuries ago, it has meant many things to many people. To persons who today live and work on this narrow neck of land that joins two massive continents and separates two mighty oceans, Panama is home—a happy home.

In its essential aspects, Panama has much in common with other Latin American nations, sharing a common cultural heritage, traditions and language.

The pattern of home and community living for a U.S. citizen on the Isthmus is similar to that of an average town or city in the United States. Each resident carves out his own interests at his own pace. He works and plays at more or less the same vocations and hobbies as in the U.S., with the advantage of more leisure to pursue hobbies and sports. Usually, there are enough daylight hours after work to enjoy nine holes of golf, play two sets of tennis, go horseback riding, or do a little fishing.

The climate is tropical and the relatively high but even temperature permits year-round enjoyment of outdoor activities and water sports. The two oceans hugging the Isthmus offer swimming, boating, skin diving, surfing, water skiing and have produced record shattering gamefish. A total of 528 pleasure boats registered in the Canal Zone reflects the large number of leisure-time sailors in the community. White sand beaches stretching for miles invite sun worshipers, particularly such Pacific side beaches as Río Mar and Santa Clara which compare with the finest in the hemisphere.

Sport Center

Panama is one of the leading sport centers in Latin America and offers such spectator sports as horse racing every weekend and on holidays. From December to February fans jam the National Stadium to watch the Panama Professional Baseball League in action. Bullfighting may be seen from January to April at the Plaza de la Macarena in suburban Panama City. The Panama Open brings some of the world's top professional golfers and attracts thousands

NATIVE DANCERS—Cuna Indians from the San Blas Islands perform a native dance for a Canal Zone audience. The women are wearing molas and wrap-around skirts.



YOUNG ANGLER—Fishing from the rocks on the Fort Amador causeway, this young angler may bring in a delicious corbina, red snapper or a kingfish mackerel.

to the Panama Golf Club. Basketball games are popular, and less known by U.S. citizens is cockfighting, a spectator sport that features wagering.

Hunting

For the hunter, the primitive jungles offer a chance to stalk jaguar, ocelot, puma, deer, wildcat, and wild pig. Bird hunting enthusiasts may search out wild turkey, duck, quail, and wild dove. The entire country is a bird watcher's paradise, but the big exotic creatures are found in the deep forest.

Church, civic, fraternal and social activities form an important part of the daily life. For the men there are Masonic organizations, Elks, Knights of Columbus, veterans' organizations, Lions and Rotary, Canal Zone Pacific Power Squadron, and baseball leagues. There are judo clubs, bowling and softball leagues, gun clubs, camera clubs, theater guilds and many other social and sport groups to occupy all interested members of the community during the evening hours and on weekends.

The Balboa Women's Club and the Cristobal Women's Club, the Inter-

CAYUCO RACE—Explorer Scouts paddle their cayucos through the Canal nearing the end of an annual ocean-to-ocean race sponsored by the Canal Zone Boy Scouts.



Panama



TABOGA—Tamarind trees provide cooling shade for strollers on beautiful Taboga Island, one of the favorite resorts near the Canal Zone for swimming and boating.

American Women's Club, Order of the Eastern Star, veterans' organization auxiliaries, Pen Women, church groups, and other social and cultural organizations offer a wide range of doings for the ladies.

Many Activities

Appealing to the hobbyists are several organizations to satisfy the spare time pursuits of most enthusiasts. The Canal Zone Gem and Mineral Society, Isthmian Numismatic Club, Panama Shell Club and bottle collectors hold periodic exhibits which attract community interest. There are also opportunities to study art, music, history, archeology, and other subjects. Persons interested in pre-Columbian and colonial history of Panama and artifacts may join the Archeological Society of Panama or the Friends of the National Museum of Panama. A Canal Zone symphonette and chamber music group offer the musically inclined a chance to fulfill their interests.

Good roads permit residents to travel to most parts of Panama and on weekends and holidays many persons head for the Interior, famous for its rich, green mountains, crystal clear waterfalls and inviting beaches. A number of U.S. citizens own summer homes in a picturesque valley called El Valle de Antón, home of "golden" frogs and square trees, which provides a cool respite from the heat of the city.

Contrasts

On a long weekend, one may venture further north to Panama's province of contrasts, Chiriquí, where a short drive through varied landscapes takes us from the tropical climate of David, the principal city, to the lovely and cool mountain village of Boquete or to the breathtaking hamlets of Cerro Punta and Volcan. Here there are excellent fruits and vegetables, trout fishing, beautiful flowers and magnificent mountain scenery.

About 1 hour by car in the opposite direction from Panama City is Cerro Azul. Here a man-made lake at 2,500 feet above sea level offers boating, swimming, fishing, and other recreation. A sweeping view of the rolling green mountains and of the lake is well worth the 25-mile drive.

For a very special weekend there is Taboga, the "Isle of Flowers," a tropical resort about 12 nautical miles from the city. Here there are no honking autos nor exhaust fumes to pollute the clean sea breezes that mingle freely with the bouquet of sweet jasmine, oleander, and a myriad of wild flowers. A modern hotel, white sand beaches, and picturesque houses skirting the shore make Taboga one of the favorite resorts.

Islands

Bocas del Toro and the San Blas Islands beckon from the Atlantic side of the Isthmus. At Bocas, the climate and beaches are unsurpassed and the fishing is superb.

On the San Blas Islands, accessible by air or boat, life goes on much as it did when Columbus discovered America. The Cuna Indians live in settlements scattered through 365 islands and maintain their tribal customs and ceremonies. This is where the mola, a decorated cotton panel, embroidered, and perforated to show underlying colors, is worn by San Blas women. Two molas make a blouse with the addition of shoulder pieces and short sleeves. Many Canal Zone residents own at least one mola, not for wearing, but framed and displayed on a wall.

Rare is the American in Panama who does not partake of the merriment of Carnival which starts 4 days before Lent and closes at dawn on Ash Wednesday. Many persons also attend and participate in the many rural fairs held on the Isthmus during the dry season—usually from mid-December to mid-April.

Night life in Panama is as gay as one wishes to make it. He may dine under the stars in one of the many tropical restaurants, luxury hotels in the city or at an attractive motel-type inn located

near the airport. Excellent food, both continental and native dishes are served. Panamanian dishes and seafood to match those of any country are served at open-air restaurants on the shores of Panama Bay. Home barbecues are popular on the Isthmus and beach parties are held frequently during dry season.

Gardens

For picnics, in the Canal Zone there is Summit Gardens, which has been called one of the most remarkable tropical gardens in the world. Here the visitor can enjoy nature in its fullest tropical splendor walking through the 300 acres of native and imported tropical plants. The zoo at the gardens also is an attraction for both children and adults.

The pattern of children's lives differs little from that of those in an average town in the United States. They attend schools in the Canal Zone, from kindergarten through junior college, which compare favorably with the finest in the United States. Plenty of recreational and character building activities are provided by Boy Scout and Girl Scout troops on both sides of the Isthmus.

A summer recreational program sponsored by the Schools Division keeps them busy during the summer months. So does Scout camp. Several riding clubs give young horse enthusiasts an opportunity to display their equestrian skills. A large number of swimming pools accommodate children of all ages. Teen clubs serve as a gathering place for youngsters after school and after athletic events and provide a setting for evening dances. Courses in SCUBA diving, judo, swimming, weight-lifting and ballet are available at the YMCA.

Children's activities include bowling, roller skating, baseball, football, tennis, amateur theater productions, driver's training, soap-box derbies, volunteer work, Boys' State and Girls' State and working as student assistants for the Panama Canal organization. One of the most exciting events is the ocean-to-ocean cayuco (native canoe) race by the Explorer Scouts each April.

Portobelo Awakens



ONCE THE MARKET PLACE OF the Americas and the Caribbean port through which the inestimable treasure of the Incas found its outlet, Portobelo is about to awaken after a long sleep of more than two centuries.

The site of many a bloody buccaneer raid and the final resting place of Sir Francis Drake is to be restored and rebuilt at a cost of \$6.5 million through the efforts of a group of historical monument experts from the Organization of American States working with the Panama Government Tourist Bureau and AID.

Plans for the restoration of the historic old town and its system of fortifications will include the establishment of a 22,500-acre national park, according to Dr. Alfredo Castillero C., director of Historical Tourism in the Panama Tourist Bureau and director of the History Department of Panama University. Within the park area, the old town will be restored. This will include reconstruction of the old forts, churches, and public buildings and the reinforcement of the foundations of the old ruins. The work should be completed in about 4 years.

Land access to Portobelo was opened not long ago with the completion of a modern asphalt highway connecting the town with the Transisthmian Highway. For the first time in history, Isthmian residents were able to travel to the old fortress town by car instead of going by sea. Engineers from the OAS already have started their surveys and have set aside sites along the beach to the east

of Portobelo for construction of modern tourist hotels.

The history of the little town, with the magnificent harbor discovered by Columbus in 1502, has been turbulent. Founded by the Spanish more than 300 years ago as a replacement for Nombre de Dios, which was difficult to defend, it became one of the strong fortresses along the Atlantic coast and the third strongest in Spanish America. It was named originally San Felipe de Portobelo and old records say that by 1618

there were 130 houses in the main town, not counting the suburbs, "the governor's house, the king's houses, a monastery, a convent, a plaza, and a quay."

The main city will rise again, according to the restoration plans. It was well built originally of stone and brick and most of the ruins of the official buildings still remain along with the official Customs House which is nearly intact. The early town had suburbs, one of which was set aside for freed slaves. The buildings were chiefly of cane with palm



An artist's conception of the plan for the restoration of the town of Portobelo is shown by Janine Lizuain, secretary in the Historical Department of the Panama Tourist Bureau.



Maria Elena Hart, secretary in the Historical Department of the Panama Tourist Bureau, holds a picture showing how the Royal Customs House in Portobelo will look when it is restored under the plan for restoration of historical sites.



The Customs House as it appears today, roofless but with its walls still standing sturdily. It was built in 1630 and served until the end of the Spanish colonial period in 1821. It was often crammed with chests of gold and silver.

thatch, all of which disappeared long ago, without a trace, into the jungle.

Jungle Outposts

It was but an outpost in the jungle after all. No man alone dared travel the royal road from the city's gate after nightfall. In the streets, snakes, toads, and iguana were frequently seen. The native wildcat prowled in the suburbs and, besides carrying off fowls and pigs, sometimes attacked human beings.

But Portobelo was a market town as well as a fortress. It came to life at least once a year during the trading fairs which lasted from 40 to 60 days. The flood of gold that poured through the trails across the Isthmus, after Pizarro began his plunder of Peru, was traded for goods from Spain and Europe. The fair began when the fleet of merchant ships and galleons arrived in port from Cartagena and Spain loaded with goods to be traded for gold and silver. The goods were shipped to South America and even to the Philippines.

Bustle and Excitement

The town took on an air of bustle and excitement at the time of the fair. The houses were crowded with people, the square and the streets crammed with goods, the Customs House with chests of gold and silver, and the port filled with vessels. Portobelo became the emporium of the riches of the two worlds and the most important commercial depot of that period.

In the square facing the Customs House, merchants erected cane booths and tents made of sails from the ships while all available space was filled with goods. With the fleet of merchant and warships came nearly 6,000 soldiers, merchants with their clerks and porters, buyers of all nationalities and, of course, the sightseers. So crowded was the little town that it appeared to be in the possession of a mob.

The Customs House, built in 1630 during the administration of Alvaro de Quiñones, served until the end of the Spanish colonial period in 1821. The Council of the Indies had ordered the Customs House to be built in the most convenient spot with one entrance and one exit only to help prevent fraud. A royal tax collector was on hand to collect the royal fees.

Because of the wealth stored at Portobelo and its use as a trading center, its fame spread over the Spanish Main. Although Portobelo was substantially built and protected by four strong fortresses and several minor batteries, the

town was repeatedly taken by the British and other marauders. The first to attack was the English pirate William Parker in 1602, and the last was Adm. Edward Vernon of the British Navy, who captured the town in 1739. He caused the most damage when he blew up and dismantled the fortress.

The most savage of all the scores of raids was made by Sir Henry Morgan, who according to Esquemeling, the Dutch historian, attacked for the first time in 1668 and killed or wounded a majority of the inhabitants. At that time the garrison consisted of 300 soldiers and the town was inhabited by 400 families.

17-Cannon Line

The main forts, which are to be totally restored by the Tourist Bureau are La Fortaleza de Santiago and San Felipe, both dating from 1600; Fort San Gerónimo, which is located within the present town; and the famous Fort San Fernando, built about 1753, across the beautiful bay. This fort has a 17-cannon line that somehow has escaped most of the ravages of time. High above San Fernando, a second platform of cannons points toward the sea and atop an even higher crest stands Casa Fuerte, Portobelo's prime lookout and vantage point, which gives a superb view of the complex of forts below.

San Felipe, once known as Todo Fierro or the iron fort, was built in 1600 at the entrance to the bay and was partially destroyed by raiders. At the time the Panama Canal was being built, the site was turned into a quarry, and it was said that what the English pirates started to do, the Americans completed.

The fort of Santiago de la Gloria was built in 1604 within the town limits while Santiago was built on the coast road leading to the town. The Fort known as Farnese or Farnesio is on the south side of the harbor and not too far from the island where history says Drake is buried. All in all, there are about 12 fortifications to be restored.

The Parish Church

The parish church of San Felipe, which was still unfinished when it was dedicated in 1814, is one of the oldest buildings in the town still in use. It replaced a smaller church of the same name, the ruins of which still remain.

The most interesting thing about San Felipe church is that it houses the image of the Nazarene of Portobelo, a handsome effigy of Jesus bearing the cross,



One of the old Spanish cannons of Fort San Fernando, its carriage rotted away years ago, points out toward the entrance to the bay of Portobelo. Two modern yachts can be seen at anchor in the distance.



The ruins of the original church of San Felipe in Portobelo. This church, also known as the Hospital Chapel, will be rebuilt under the plans for the restoration of the town of Portobelo.



The new church of San Felipe, which houses the famous image of the Black Christ, stands stark against the brilliant blue sky of Portobelo. Services were first held here in 1814.



The Black Christ, one of the most revered images throughout Panama is surrounded by candles for the annual "Feast of the Black Christ" celebration.

hewn from wood of southern Spain more than 300 years ago. Called the "Black Christ," it has become one of the most revered images throughout Panama and the focal point of an annual church festival which draws thousands of visitors each October.

Legend has it that the image of Christ came to Portobelo aboard a sailing ship bound for Cartagena, Colombia. When the galleon sailed from Portobelo, a fierce storm sank it. The boxed image floated free and was washed up on a nearby beach. There it was found by the townspeople and taken back to Portobelo.

"Feast of the Black Christ"

The annual celebration of the "Feast of the Black Christ" began in 1821 when a cholera epidemic ravaged the Isthmus. The Portobelo residents made a vow to celebrate a feast day of the Black Christ each October 21 if the town were spared. The epidemic bypassed the town.

The present day town of Portobelo has only slightly more than 500 citizens and they have developed a personality of their own. They are descendants of the Spanish and Indians and the Spanish and African slaves, with a third group made up of people of distinct African ancestry. Dr. Dulio Arroyo, retired dean of the Faculty of Law at the University of Panama, and a native of Portobelo,

says members of this group "carry in their blood centuries of tradition." Among these traditions are primitive dances with a definite African flavor, called "congos," which they perform wearing costumes fashioned from the bark of the palm tree and decorated with multicolored feathers.

Congo Dances

The congo dances have become a part of Panama's folklore and they are presented at most typical Panama dance exhibitions. Congo dancers can be seen mainly at carnival time when "congos" from neighboring villages come to Portobelo to roam the streets and perform their lively dances.

Although there has been a slight tourist boom since the completion of the highway connecting the town with Colon and Panama, the carnival celebration and feast of the Black Christ are about the only times when present day Portobelo comes to life.

But it is only a matter of time, the Panama Tourist Bureau says. As soon as the town is rebuilt and the hotels completed, Portobelo will become a tourist mecca. Once again, Portobelo, the old market center, the scene of so much adventure and strife, will take its place on the map and help in the economic revival of the Gold Coast of the Isthmus.

The



REAL Panama Hat



By José T. Tuñón

RICH OR poor, young or old, no man or woman of Panama's interior is ever caught without a "montuno" hat—well, hardly ever. For the distinctive native hat is as much a part of the national attire as the well-known "montuno" outfit is for men and the now internationally famous "pollera" is for women.

Except that sex makes no difference in the use of the hat.

At first glance, there is nothing out of the ordinary in the appearance of Panama's "montuno" hat. The crown is of normal size, about 6 inches high, and

raised or flat depending on the locality where it is made. The wide brim is circular.

But the fiber and the weaving are unique.

The raw material is the shoot of a palm tree that grows wild in the high mountains of Coclé and Veraguas Provinces, in an area some 100 miles west of Panama City. In Panama it is known as "bellota," elsewhere in Latin America as "bombonaje" or "jipijapa." Incidentally, it is the same fiber that is used in Ecuador to make the once-famous "Panama" hats.

Descendants

In the Coclé and Veraguas mountains of central Panama live the "cholos"—descendants of the fiery Indians and the proud Spaniards. It is their women who have preserved the art of hat weaving from generation to generation.



Nimble fingers at work, Victoria Domínguez of La Pintada prepares the fibers for the miniature montuno hats which are given as souvenirs in Panama City.



A farmer at the San Sebastian Fair at Océ proudly wears his "Sunday best" montuno hat which is woven of white fiber. For everyday he wears a montuno hat of rougher fiber.

A traveler hiking the winding mountain trails of El Copé and El Harino, above Penonomé, is apt to come upon the glow of rustic lanterns burning in the homes of the "cholos" before day-break. The women are weaving the finer "montuno" hats. For the work must be done between 4 and 8 in the morning—when the moisture in the air is highest to render the fiber softer and more pliable. The rest of the day, the materials have to be kept wrapped in damp cloth.

The painstaking weaving takes many early morning hours, but when the hat is finished, it is a real piece of native art.

The strands are obtained by splicing the "bellota" shoot with a needle. Then the fibers are left out in the damp morning air to acquire the required consistency before being wrapped in damp cloth for storing. Using head shaped wooden blocks, the women patiently interweave as many as 15 strands of fiber to fashion a hat.

Two Styles

There are two distinct styles of "montuno" hats. One is the "ocueño," named for the region of Océ where it is most popular. The "ocueño" hat is woven of white fiber, except for a 1-centimeter wide black strip around the edge of the brim. The other is the "pintao" (a corruption of "pintado" or spotted) hat, its name deriving from the "pintas" or designs obtained from interweaving white and black fiber strands.

Each design is up to the weaver's imagination; hence, the variety is almost limitless. Look at a collection of "pintao" hats and you will wonder at the artistic

touch of these women from the mountains of Panama. The designs—some in concentric circles, others in spirals, in squares, cross-shaped or simply in dots—evidence a sense of refinement and exquisite care. The crown of the “pintao” hat is flat instead of raised as in the “ocueño” style.

Regardless of the color, all the fiber that goes into a “montuno” hat comes from the same “ballota” palm. The black strands have been dyed with a special clay that is a zealously guarded secret of the “cholos.” The jet black color imparted to the fiber is indelible.

Hat Bands

No matter its style, the “montuno” hat is usually adorned with a delicately woven cord of black or multi-colored thread or wood that serves as a band. The weaving of the cord is another home craft transmitted from generation to generation among the women of Panama’s countryside, particularly in the area of Océ. It involves an ingenious technique: pins are stuck around the hole at one end of an ordinary spool of sewing thread—one pin for each of the colors in the finished cord. The colored strands then are interwoven around the pins and the finished cord emerges through the other end of the spool. In Océ the weaving of cords for use as “montuno” hatbands is a pastime for most women—from the richest matron to the humblest girl.

When should one wear an “ocueño” or a “pintao” hat?

Mrs. Dora Pérez de Zárate, an authority on Panamanian folklore, explains the difference, from a woman’s standpoint.

“The ‘campesina’ in Océ or Veraguas prefers her hat plain, rounded, with no special adornment or particular shape to the brim. She wears this hat with her daily attire and also, when she pleases, with her lace ‘pollera’. . . . The people of Herrera Province . . . the Province of Los Santos and of the rest of the country . . . wear the ‘pintao’ hat only with their ‘pollera montuna’ (the common ‘pollera’); the headdress is different when a lace ‘pollera’ is worn. . . .”

The Important Thing

And what about the men? They have an everyday, working hat of a rougher nature, and for holidays and festive occasions wear similar hats but these are better made. Regardless of the style, the important thing is to wear a “montuno” hat. Why?

Writer Roman B. Reyes put it this way:

“The ‘montuno’ hat is indispensable to dance the ‘tamborito.’ It is an emblem of masculine enthusiasm and of courting, a prerequisite for his gestures of tribute and admiration to the woman who shares with him the pleasure of native dancing.”

Panama’s “montuno” hat industry is very old. No one really knows when it began. Knowledgeable persons such as Elias Vega, an expert hatter in Penonomé, say it goes back to pre-Columbian times.

A distinguished American educator played an important part in an interesting chapter of the history of the native hat industry in Panama. He was Federico E. Libby, who was employed by the Panama government in 1914 as Inspector General of Education. He spoke Spanish fluently, having worked in Puerto Rico for a long time. Libby was convinced that the rural school had to be adapted to the environment of the students in order to train them in useful crafts. When Libby heard of the hat industry in the Coclé highlands, at La Pintada and Océ, he brought an expert hatter from Ecuador, Francisco Lara, and established a school in Penonomé to teach the weaving of Panama hats.

Hatters School

Few persons realize it, but Panama hats made in the Penonomé Hatters School were sold in the United States and in Germany and were worn by members of Panama’s most prominent families.

Graduates from this school, which operated for 20 years, spread throughout central Panama, mainly in Coclé and Herrera Provinces, resulting in a marked growth of the native hat industry.



A Panamanian beauty wears a “pintao” hat distinguished by the black fiber.

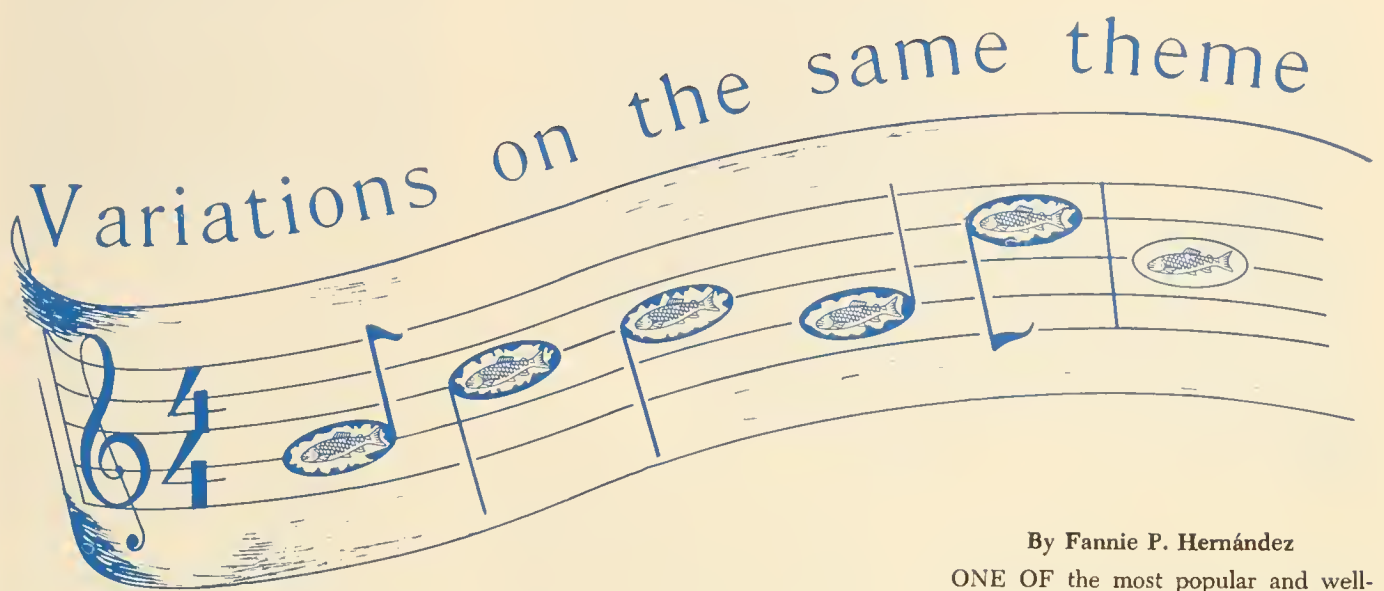
Thus, an American left the imprint of his work on the “montuno” hat craft of Panama.

In recent years, the Panama Government and the United Nations, through SENAPI (National Service of Craftsmanship and Small Industries), have boosted the industry. In La Pintada, SENAPI has established small shops for fiber weaving where expert instructors teach residents the secrets of working with materials from native plants. There are many learners and both the quality and the variety of the articles are increasing.

Still, the most authentic “montuno” hats—and the finest—are those woven in the glow of rustic lanterns by the skilled fingers of “cholas” in the highlands, between 4 and 8 every morning.



A wedding in Océ. All the guests and the bridegroom wear the “ocueño” or white montuno hats. The bride is attired in a white pollera wedding dress and wears gold combs in her hair which are family heirlooms. The flags are used to add gayety to the occasion.



SEVICHE



Shrimp seviche, served with saltines, tops the list of favorite Panama hors d'oeuvres. Its fame also has spread to the United States where it is served at cocktail parties and dinners.

By Fannie P. Hernández

ONE OF the most popular and well-known hors d'oeuvres in Panama is a raw fish dish that is becoming more and more popular at the most discriminating restaurants.

Called seviche, this zippy Latin American appetizer also is spelled se-biche, cebiche, or ceviche—depending upon the locale.

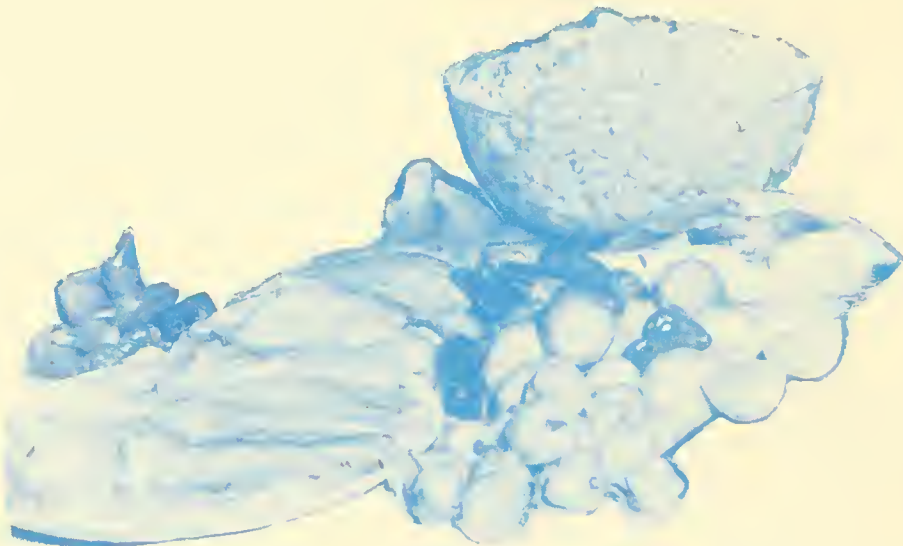
Basically, seviche is made of any good quality white fish, shrimp or scallops "cooked" in citrus juice. Several countries claim the origin of this ingenious way of serving fish not cooked in the customary manner. Peru, Ecuador, and Panama, all refer to it as their very own.

Centuries ago, however, the Japanese were dipping raw sardines in soy sauce and popping them into their mouths, and sashimi, fish marinated in soy sauce and lemon juice, has been a favorite Japanese dish for about 2,000 years. Sashimi could very well be the forerunner of seviche.

Lemon juice for preserving fish was introduced into Japan from China or another area of Asia where citrus fruit had its origin. As Japan is surrounded by waters swarming with fish, this food has been an important item in the Japanese diet since ancient times.

Spirited Appetizer

Whoever first hit upon the idea of cooking by marinating in citrus juice deserves credit for a favorite hors d'oeuvre being offered at cocktail parties and dinners, not only in Latin America, but in many cities in the United States and other countries where hostesses have discovered the excellence



of the tasty, spirited appetizer. The idea has caught on and spread like the fire of the nippy hot peppers that enhance the flavor and aid the cooking process.

From its probable humble source in Japan, to its enthusiastic acceptance in Peru, Ecuador, Mexico, and Panama, the respectability of the raw fish appetizer has extended to well-known restaurants in New York City. Immediate acceptance and continued popularity of seviche may be due to the fact that it is not only pleasing to the palate but also nutritious and simple to prepare. Any food which can be prepared ahead and served the following day, or even days later, is bound to win the approval of today's busy hostess.

The Marinade

Variations in the flavor of seviche depend upon the particular citrus juice or combination of juices and the other ingredients used in the marinade. The marinade juice could be lemon, lime, or sour orange, or a combination of two, or even all three juices. The acid in the citrus juice and the action of salt called for in recipes prevent the growth of micro-organisms in the fish, softening the fibers as they penetrate. The enhancing ingredients—hot peppers, green peppers, garlic, and onion—give seviche its pleasing gusto.

Each Latin American country has given seviche its own touch of individuality by adding its own particular garnishes. In Peru, seviche is served with slices of cold sweet potatoes or corn-on-the-cob, while in neighboring Ecuador, it is accompanied by popcorn, potato chips, nuts, or the giant kernels of corn native to that country. Panamanian hostesses serve seviche

with buttered saltine crackers or in dainty pastry shells. It is also served in a large crystal bowl with the guests helping themselves, either by spearing it with toothpicks or filling the pastry shells. In Mexico, seviche is accompanied by slices of raw onions and served on toasted tortillas.

Favorite Recipes

Following are a number of favorite recipes for making seviche. Depending on how it is served, 1 pound of fish is enough for four to six servings.

Here is a version of seviche which Japanese housewives were making hundreds of years ago. They call it sashimi and serve it with horseradish or very

strong mustard. (Note the omission of hot pepper.)

- 2 pounds fish fillets
- 2 cups lemon juice
- $\frac{1}{4}$ cup soy sauce
- $\frac{1}{2}$ cup thinly sliced onions
- $\frac{1}{4}$ teaspoon white pepper
- 1 teaspoon salt

Remove the skin from fillets and slice $\frac{1}{8}$ inch thick. Mix the other ingredients and pour over the fillets which have been placed in a glass bowl or platter. Let it marinate overnight.

Peruvian Seviche

The Peruvian cook cleans the fish and lets it soak in salt water for 10 minutes and then removes it and pats it dry.

- 1 pound fresh fillets of corbina, red snapper, or any good quality whitefish
- juice of three lemons
- juice of three sour oranges or limes
- one medium onion, thinly sliced
- salt and pepper to taste
- a pinch of cayenne pepper
- 1 clove garlic, minced
- 1 hot pepper, chopped fine
- 2 tablespoons chopped parsley
- 2 tablespoons chopped cilantro (coriander)

Cut fish into pieces and place on a platter. Place the thinly sliced onions on the fish. Then add the remaining ingredients, covering with the juices. Place in refrigerator for at least 4 hours before serving. Serve on bed of lettuce and garnish with cold sweet potato or corn-on-the-cob.



Enjoying an appetizer of corbina seviche in the DeLesseps Room at Hotel El Panamá are Mr. and Mrs. Stephen A. Bissell of Balboa. Corbina seviche is served at most hotels and restaurants throughout the Republic of Panama.



Ecuadorian Seviche

In Ecuador seviche is served with potato chips, popcorn, sweet potatoes or kernels of corn that are about an inch long and almost as broad. Ecuadorians usually combine three citrus juices plus vinegar in their seviche.

- 2 pounds whitefish
- juice of 6 limes, 3 lemons, 3 sour oranges, or enough to make 2 cups juice
- 4 teaspoons salt
- $\frac{1}{4}$ teaspoon black pepper
- $\frac{1}{4}$ cup vinegar
- 2 medium onions sliced very thin
- 2 or 3 red or yellow hot peppers, slivered

Cut fish into bite size pieces and place in a bowl. Pour juice over it. Add salt and pepper and vinegar. Let stand about 6 hours in refrigerator. Pour boiling water over the onions and drain. Add to the fish. Add slivered hot peppers and let set overnight.

- Here is another version of Ecuadorian seviche using lemon juice only:
- 3 pounds corbina, washed thoroughly and dried with paper toweling
 - juice from about 25 lemons
 - 2 onions (medium size) chopped
 - 2 teaspoons salt
 - 1 aji chombo, (hot pepper) cut into small pieces

Cut the fish into bite size pieces and place in glass bowl with one cup lemon juice and one teaspoon of salt. Let it set for 15 minutes and then drain, squeezing the fish gently. Add the remaining lemon juice or enough to cover the fish. Add the chopped onions and stir with a wooden spoon. Let set for 15 minutes. Then add the aji and the remaining salt. Let it set for 30 minutes, cover and place in refrigerator. It may be eaten in about 2 hours. (Segundo Franco).

Shrimp Seviche

- 2 pounds shrimp
- approximately 10 lemons
- 1 hot pepper
- 1 chopped onion
- 1 teaspoon salt

Put raw shrimp in boiling water for 5 minutes. Remove and place in cold water immediately. Remove shells and

clean shrimp. Place in a glass bowl with the lemon juice, the onion, pepper, and salt. Let it set for 1 hour and serve. (Franco).

Here is another variation of shrimp seviche:

- 2 pounds shrimp, cooked and cleaned
- $\frac{1}{2}$ pound onions, chopped
- $\frac{1}{2}$ bottle French's mustard
- $1\frac{1}{2}$ teaspoon salt
- $\frac{1}{2}$ cup olive oil
- $\frac{1}{2}$ cup lime juice
- 1 hot pepper, chopped

Cut shrimp into pieces. Add remaining ingredients and marinate for about 8 hours. (Mrs. Stanley Fidanque).

Panama's Corvina Seviche

- 1 pound fillets of corvina
- juice from a dozen limes, more if necessary
- 3 medium size tomatoes, chopped fine
- 3 onions, chopped fine
- 2 hot peppers, remove part of it after it has set about 2 hours
- 1 green pepper, chopped fine
- 1 clove garlic, minced
- 1 tablespoon finely chopped parsley
- salt and pepper to taste

Place corvina fillets on a platter. Mix the remaining ingredients and spread over the fish, making sure it is completely covered. Let it set for a few minutes and then turn the fillets over so both sides of the fish are well marinated. Cover platter and place in refrigerator. Turn the fish several times. Can be eaten after 8 hours.

Scallop Seviche

- $1\frac{1}{2}$ pounds scallop (Panama Bay scallops preferred)
- 1 hot pepper
- 1 tablespoon vinegar
- $\frac{1}{4}$ teaspoon oregano
- $\frac{1}{2}$ cup lime juice (or more if needed)
- 1 medium onion, chopped
- 1 clove garlic, mashed
- 2 teaspoons mustard pickle
- 3 tablespoons olive oil
- 2 tablespoons catsup
- salt and pepper to taste

Clean scallops and put in a colander. Pour boiling water over them and let drain. Mix the onion and hot pepper (chopped very fine), garlic, mustard pickle, oregano, and vinegar. Put scallops into this mixture and let marinate for 30 minutes. Then add salt, pepper, olive oil, catsup, and lime juice. The lime juice should cover the mixture. Place in a glass container, cover and let stand in refrigerator 24 hours before eating. (Stir with a wooden spoon from time-to-time. Some metal spoons will

tarnish from the acids.) (Mrs. Robert Rupp.)

Here is La Fonda Del Sol's seviche, reprinted with permission from CARTE BLANCHE Magazine. It is a specialty of this New York restaurant and one recommended for home-experimenting with the South American way to "cook" fish.

- 1 pound firm-fleshed, fresh, raw, white-fish, boned; or scallops
- 1 cup lemon juice
- $\frac{1}{3}$ cup lime juice
- $\frac{1}{2}$ cup orange juice
- 2 tablespoons ketchup
- $\frac{1}{4}$ teaspoon salt
- 1 cup finely chopped red onions
- 1 red pepper
- $\frac{1}{2}$ of a small yellow hot chili pepper, grated or finely minced
- 1 green pepper
- lettuce
- $\frac{1}{3}$ cup canned corn kernels
- 3 or 4 sprigs cilantro, also known as co-riander or Chinese parsley

About 5 hours before serving, remove all skin and dark meat from fish. Slice across fish (or scallops) making strips about $1\frac{1}{2}$ inches long by $\frac{3}{4}$ inch wide, no thicker than $\frac{1}{8}$ inch. Place fish in bowl; pour about $\frac{3}{4}$ cup lemon juice over fish. Cover with plastic wrap and marinate at room temperature about 1 hour. Stir occasionally; let marinade reach all pieces. Meanwhile, prepare other marinade. Combine remaining $\frac{1}{4}$ cup lemon juice, lime and orange juices with ketchup, salt, onion, and finely chopped red and green peppers; reserve two slices of peppers for garnish. Add hot chili pepper, if available, to this mixture. Drain and discard first lemon marinade; cover fish with seasoned marinade, using airtight container (onions emit a powerful aroma). Refrigerate 4 hours. Turn fish occasionally. Serve seviche over a bed of lettuce leaves on a chilled platter. Include chopped vegetables but drain most of the juice from fish. Garnish with sliced red and green pepper circles, corn kernels, finely chopped cilantro, and parsley. Provide toothpicks. Makes about 50 bite size servings.





THE OLD ADAGE that money doesn't grow on trees doesn't hold true for Panama. It does, and probably in your own back yard.

Two enterprising brothers saw the green shimmering in the trees years ago and now slowly but surely are cashing in on a relatively untapped Panamanian resource—dried plants that can be used for table arrangements.

The pair, Davis and Sydney Stevenson, both U.S. citizens born and reared in Panama, operate the Tropical Plant Products Co. on a 50-acre farm in the Pedregal area between Panama City and Tocumen Airport.

The products literally grow on trees and vines. They are the large curly cecropia leaves, acacia pods, ferns, hops, sea oats, sea grape leaves, wood roses, palm sprays, ginger lillies, the handsome heliconias which grow wild along the roads, and dozens of miscellaneous flora eagerly sought by florists in temperate climates where tropical plants are rare.

To date, neither brother has taken a salary nor any profits from the farm operation. All earnings are returned to the company in the form of land purchases, salaries, seedlings, machinery, and raw materials.

But they see a lucrative future not only for themselves, but for the Panamanian economy as well. All the raw materials including seedlings, plastic bags, paper collars for the bags (these are printed with the name of the plant and are stapled over the bag opening), cardboard boxes for shipping, and many other small items, are bought in Panama. Even farm machinery not manufactured in the Republic is purchased through local companies.

Bankrupt

The future was not always as bright as it now appears, however. When the operation was first starting in 1960 it came close to failing. Less determined men might have given up. Following the first harvest, a Florida distributor ordered \$8,000 in dried plants. But

Panama's Money Trees



A collection of dried Panama plant life transformed into an attractive table arrangement is held by Mrs. Gladys Burdick of the Curundu Flower Shop.

With the help of 10 men and women who harvest, dry, fumigate, and package the marketable foliage, the Stevenson brothers are working toward a half-million-dollar a year industry. It may be the largest export company of dried tropical plants in Central and South America.

Already the "product of Panama" label printed on the packages can be seen in nearly every State of the continental United States.

Airfreight

So far this year they have shipped to the United States approximately 250,000 wood roses and about 200,000 other plants. Everything is sent airfreight from Tocumen Airport to the nationwide distributor, Horticultural Sales in Fort Lauderdale, Fla.

Tropical Plant Products has grown from 10 to 50 acres since the farm started 10 years ago. Although it was a struggle for them in the early years, the Stevensons now feel there is a vast market for tropical dried plants, not only in the United States, but Europe, England, and Japan. They plan to increase the size of the farm to 200 acres, which will provide jobs for 50 persons.

before the shipment was paid for the wholesaler went bankrupt and the account was never settled. Except for the farm itself, and the energies and business sense of the Stevenson brothers, the company was just about out of business.

Slowly they brought it out of the doldrums. Stockholders who invested in the original venture are being repaid their original investment, plus interest. Davis, who takes care of the administrative side of the company, said the obligation to the stockholders will be totally repaid in another 2 or 3 years.

While Panama's weather provides an ideal growing season, it also creates something of a problem. Harvest time on the Stevenson farm is at the beginning of the dry season. But if the rainy season ends late, as it did this year, unseasonal storms damage the plants. Dry season rains in January destroyed 40 to 50 thousand wood roses. But everything considered, nature is generous to persons who till Isthmian soil.

The U.S. Department of Agriculture requires that before being shipped to the United States, all plants must be



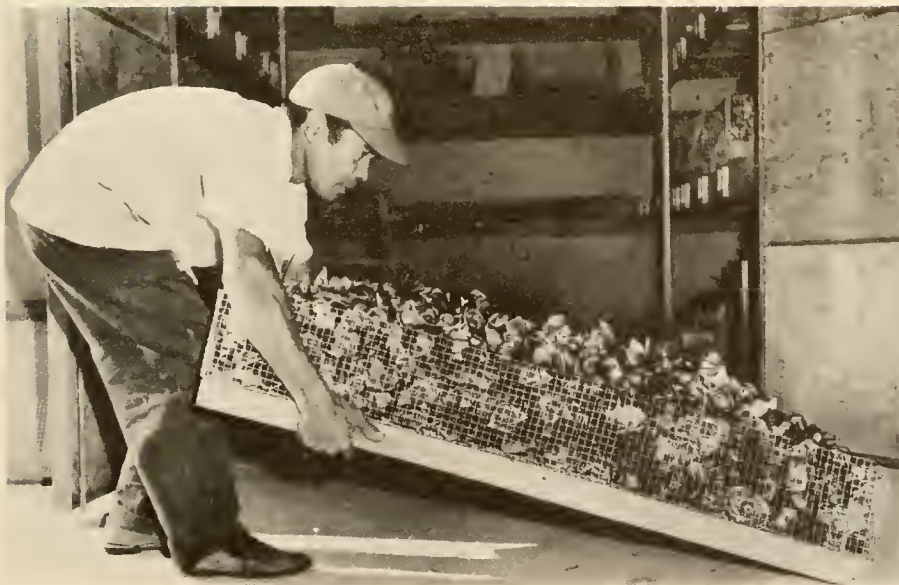
With his homemade, plywood collection box strapped to his back, Jerónimo García snips seed pods from the vine with his right hand and flings them accurately over his shoulder into the box.



A closeup view of the seed pod shows why it is called a wood rose. It is actually the seed pod of the *Ipomoea Tuberosa* vine which produces a bright yellow flower during the latter part of rainy season.



Approximately 100 dozen wood roses are in this wire box about to be placed in a gas-heated drying room by Ricardo Torres. Although the plants are almost dry when picked, further drying is necessary and assures better coloration.



Just prior to fumigation the plants are sorted and packaged. Mrs. María de los Santos Molina, who lives nearby, earns extra money during harvest season.





The Wood Rose Is Always A Favorite



Surrounded by the lushness of Panama, David Stevenson, left, and his brother Sydney, inspect a new hatch of wood roses before the plants are packaged and fumigated. Their efforts may eventually turn into a \$500,000 a year industry.



Packaged in plastic and labeled, the finished product is ready to be flown to Florida for distribution. So far this year approximately 450,000 dried plants have been shipped out of Panama.

fumigated to destroy unwanted and possibly dangerous insects. Fumigation is one of a series of processes carried out between the time a plant is picked and the time it is shipped to the airport.

Wood Roses

In the case of the popular wood roses, a team of harvesters moves through the rows of vines carefully selecting and cutting the flowers. They are then put into shallow boxes with wire bottoms and placed in a gas-heated drying room. Although the plants would dry naturally, the artificial method does a faster job and results in better color.

The plants spend 48 hours in the chamber and then are moved to the sorting table where each plant is inspected for color, size, and general quality. The best of the plants are then hand bagged (a dozen to each perforated plastic bag), stapled closed and moved to the fumigating room where menthol bromide gas kills the insects. After this necessary procedure, the plants are placed in cardboard cartons for trucking to the airport.

Braniff International and Pan American World Airways fly the packages to Florida. An average shipment consists of 50 cases which contain 4,000 dozen wood roses.

Besides the pleasant climate of Panama, there are other advantages for businesses in the Republic. Davis points out that the Isthmus has excellent accessibility to world markets; the investment climate is good because it is a dollar economy, and the business community is a progressive one. Also, there are certain guarantees for foreign businessmen; ability to move dollars in and out of the country without restrictions, and a liberal dividend tax.

On The Ground

The Stevenson farm does not produce all the items that Tropical Plant Products exports to the States. Some of the dried plants such as the white cecropia leaves are provided by suppliers who simply pick the leaves off the ground and take them to the farm. Other flora supplied in the same manner include sea oats, sea grape leaves, heliconia, and royal palm sprays.

Panama, like other tropical countries, has a wealth of items that can be dried and made into attractive arrangements for the home or office. Anybody can do it. All it takes is the right plant, a little imagination, and a vase.

"ROSE IS a rose is a rose is a rose," said Gertrude Stein, noted author and poet. And that was fine, for a rose does look like a rose no matter what the size, shape or color.

If Gertrude had said this about orchids, she would have been in trouble. Under no given set of circumstances can an orchid be an orchid be an orchid be an orchid.

In the first place, orchids represent the world's largest family of flowering plants. At present there are more than 30,000 different species and the number is increasing as new hybrids are developed.

In the second place, in spite of the general popularity of orchids, few persons can give a fairly accurate description of what distinguishes an orchid from other similar or allied plants.

Paul H. Allen, who wrote the book "THE ORCHIDS IN PANAMA," said that in the American tropics, any plant found growing on a tree is called by the natives a "planta parásita" or parasite plant and hence all parasites are automatically presumed to be orchids.

Orchids are air plants, not parasites.



Orchids

By Eunice Richard

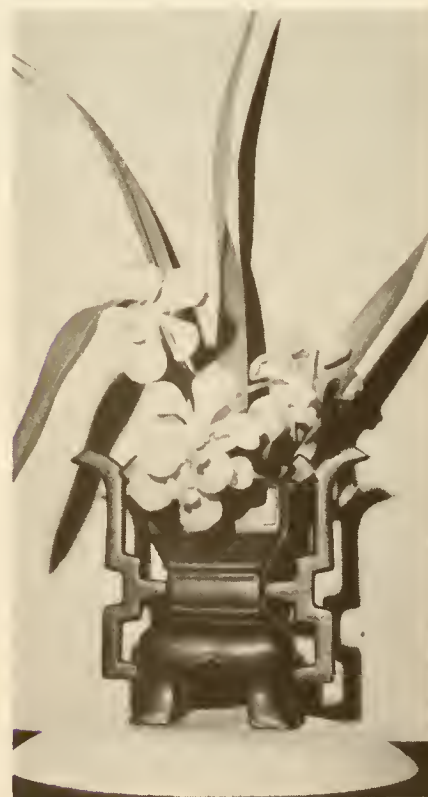
They grow well with lots of air, water and plant food but never take sustenance from another plant. The roots do not penetrate the living tissue of the host plant or extract nourishment from it as do true parasites such as dodder and mistletoe.

Other plants such as bromeliads and aroids are frequently found on the trunks and branches of trees along with orchids.

During the dry season, orchid growers sometimes water their collections with a hose using a fine spray twice a day. In the rainy season, spraying may sometimes be skipped; orchids can die by too lavish or too limited watering.

Most tropical orchids are known as epiphytes, a term meaning to "live upon" some supporting body, usually a tree or a rock. But there are other orchids known as terrestrial. These grow in the ground and, in the tropics, are far less numerous than the epiphytic type. Of the terrestrial orchids there are two classes—those with green leaves and stems which behave like most other plants, and those which are saprophytic or living wholly upon decaying plant

Orchids do not require elaborate arrangements to bring out their beauty as the above photo shows. A single spray of the scorpion orchid produces a graceful display. A simple black teapot below is used by Mrs. Mary Linden to create an interesting vanda arrangement. A hint of of the Orient comes through in the display at right by Mrs. R. Arosemena.



matter. Epiphytic orchids are sometimes apparently terrestrial growing upon the ground in beds of moss and other plants. In temperate regions almost all orchids are terrestrial.

Well Guarded Secrets

The preface of a book on orchids by Walter Richter, a German orchidologist, says orchidology is a cult and its secrets are well guarded by its "high priests." He said their very name summons up visions of strange lands and high adventure, and only those persons who are prepared for a life of rigorous sacrifice can hope to enter its orders.

Whenever the uninitiated is confronted with literature dealing with orchids, he is soon lost in a labyrinth of scientific and Latin terms. It has been said that man either understands orchids or he does not, and he who was not

celebrated Spanish voyage around the world under navigator Malaspine from 1789 to 1794. Nee visited Panama and is known to have collected plants on Ancon Hill. Several of the most common tropical plants were first described from specimens obtained by him there.

During the early days of the Canal construction, workers arriving in Panama from the United States scarcely could fail to take notice of the more conspicuous plants such as the orchids.

Some of the early orchid collectors were Mrs. D. D. Gaillard, wife of the division engineer in charge of the Central District; Mrs. H. H. Rousseau, wife of a member of the Isthmian Canal Commission; and Mrs. Maurice Thatcher, first chief of Canal civil affairs. Although theirs were amateur collections assembled in a haphazard way, they were of considerable interest to visitors. One scientist reported that

is a thing of the past, the interest among local orchid growers has not diminished. Members of the Canal Zone Orchid Society on the Pacific side of the Isthmus and of the Gold Coast Orchid Society on the Atlantic side take their orchids in their stride as part of a way of life. Most of them, while not scientists or naturalists, have learned the language that identifies most species and are adept at producing fine hybrids.

Some of the fine local collections were started by Harry A. Dunn, former medical chief technologist at Gorgas Hospital, who was one of the pioneers in the orchid growing business in the Canal Zone. Before retiring in 1965, he had one of the finest orchid collections on the Isthmus.

Orchid Enemies

Writing in the American Orchid Society Bulletin in 1948, he said he had



Mrs. Alice Clark, at left, sprays some of her orchids with a fine stream of water, part of an orchid growers ritual which keeps the plants in the pink of condition. At right, opposite page, this orchid, the *Lockhartia Micrantha*, looks more like a spider than a plant. It is growing in a piece of tree fern and is owned by Mrs. Elizabeth Mercier. At the far right, Canal Zone Police Capt. George E. Martin examines a vanda growing in his orchid garden in La Boca.

born with the sixth sense required for caring for these extraordinary flowers will never acquire it.

That may be so, but the orchid lovers living on the lush Isthmus of Panama have not been cowed by the apparent pitfalls of orchid growing.

The local aficionados have gone blithely ahead and acquired some collections that would be famous anywhere in the world. Approximately 300 orchid species may be found growing wild in Panama and many of them are in local orchid collections. Many others that have been introduced into this region are now grown by orchidologists on the Isthmus.

Spanish Voyage

Orchid collecting in Panama is not new. One of the first botanical collectors on record to visit Central America and Panama was Luis Nee, botanist of the

he had obtained specimens which were found to represent species previously unknown to science.

The late C. W. Powell, a construction days employee of the Panama Canal, is credited with providing scientists with the first major part of their knowledge of the orchids of the Republic of Panama.

World Renown

The Powell orchid garden, which existed in Balboa from 1914 until the beginning of World War II, was known to orchid growers all over the world. The garden was sponsored by the Missouri Botanical Gardens of St. Louis. It contained more than 7,000 plants representing nearly all of the species of orchids known to grow in Panama. Many of the plants were sent by Powell to Missouri for classification.

Although the Powell orchid garden

been collecting orchids as a hobby for the past 15 years, but even at that time the roadside collection of orchids had become a thing of the past. The enemies of the orchid were the lumber companies that cut the trees on which the plants grew, and the native farmers who burned the jungle to make way for their crops. In addition, orchid collectors had sought and collected in most of the accessible places close to home and it became necessary to go further afield in the search for rare plants.

Dunn took a 10-day trip each year to Chiriqui Province in western Panama and collected as many as 1,500 orchid plants of about 30 genera and 54 species. It was his opinion that the Province of Chiriqui was the finest place in the world to get orchids, mainly because the area includes three varieties of climates—tropical, temperate, and cold.

Panama, in occupying the narrow land bridge linking the two major divisions of tropical America, has flora indigenous to both north and south. Residents of Panama and the Canal Zone thus have the opportunity of seeing a remarkably representative cross-section of the orchids of the New World.

The Dunn collection was broken up when he left the Isthmus in 1965. But Mrs. Alice Clark, who lives with her husband and family at the top of Ancon Boulevard, got her start in the orchid business when her sister-in-law gave her five orchid plants from the Dunn garden.

Since then, she has traded, purchased, and produced plants that cover two trees, fill one greenhouse, and grow along the side of the hill behind the house in a profusion of white, yellow, and purple. Most of those that are in bloom through most of the year are the

parts of Panama including Ancon Hill and islands in Gatun Lake. She has imported some from the Far East and the United States.

Canal Zone Police Inspector Capt. George A. Martin is another veteran orchid grower. He started his collection of plants in 1950 when he was living on the Atlantic side and has obtained some from the Gatun Lake region. Although he began with native blooms, he has branched out into the hybrids and the imported plants, many of which he obtained through trading. Trading, he says, is as good a way of making friends in out of the way places of the world as being a ham radio operator.

Captain Martin, Henry Tooke of Los Rios, and most other orchid collectors here have a number of the large flowered hybrid cattleyas. It is difficult to persuade the average individual that

In Panama, the Holy Ghost orchid blooms not in the Easter season as one might expect, but in August, midway in the rainy season. New growth starts with the first heavy rains of the year in May.

The Mariposa, or butterfly orchid, is another beautiful species native to Panama. It grows from sea level to 2,000 feet on the espave trees along the banks of rivers.

Orchid Cures

Orchids have been used for medicinal purposes. They cure very common ailments and not as one may think, only exotic diseases. According to orchid expert Walter Richter in his book *THE ORCHID WORLD*, a drug known under the name of "salep" is made from the dried bulbs of certain species of terrestrial orchids.

The drug is important for the treatment of serious intestinal illness in chil-



vanda hybrids and the bamboo orchids, both of which are terrestrial or ground orchids. Her garden is on the side of the hill and is in the line of march for tourists taking the Ancon Boulevard route to tour the Canal Zone.

Orchid Eaters

Many visitors arrive at her house thinking it is part of the old Powell botanical garden. Although her garden is constantly putting on a show, she seldom loses any of the exotic blooms to human thieves. Orchid-eating deer are her trouble. They sometimes come down from Ancon Hill and eat a whole stand of vandas in one night.

Mrs. Clark says she has learned to know Panama as well as many far away places through the hobby of orchid collecting. She has collected orchids in El Valle, El Volcan in Chiriqui Province, Cerro Campana, and many other

there are others. And yet 80 percent of the wild orchids are small to minute.

Fragrant

The hybrids can be produced by sowing the microscopic seeds and bringing the plants to maturity under precise modern methods, which takes about 2 years. Some of the varieties are quite fragrant.

The most celebrated of the Panama orchids is the *Peristeria elata* commonly known as the Espiritu Santo or Holy Ghost orchid—the national flower of the Republic of Panama. It is a terrestrial type that inhabits the lowland forests. From a cluster of green bulbs, a few narrow leaves rise and a flower stalk 3 or 4 feet high bears a raceme of fragrant white waxy flowers resembling miniature doves which give it the popular name.

dren but the production is small because attempts to cultivate salep producing plants for commercial purposes have been unsuccessful and the world sources are becoming exhausted.

The roots of some orchids are used against inflammation of the joints and the flowers of another against dysentery. Orchids are used for many varied medicinal purposes. Some species from Mexico are used as fever cures and for coughs, and some are even good for the treatment of wounds. The bulbs of another are eaten in Jamaica to aid digestion. The bulbs of the Japanese terrestrial orchid are a remedy for toothache.

No orchid is known to be poisonous although the Chinese have been known to extract alkaloids from some species and the leaves of others can cause inflammation of the skin.

All About Molas

By Georgia Corin

FOR THE CUNA Indians of the San Blas, 1970 may be the "Year of the Mola."

The diminutive Cuna women, shy when it comes to displaying themselves in their colorful costumes, become aggressive hawkers of their cloth molas, which are the most sought after tourist item in Panama.

The rectangular, intricately designed panels are worn by the Indian women, young and old alike, but the North Americans who sometimes seem to overflow the small Cuna communities on buying sprees have other ideas. They have taken to framing them for wall hangings, for dressmaking, pillow covers, curtains, hats, head scarfs, bikinis, place mats, clothing patches, and in the Canal Zone the newest fad among teenagers is to put them on T-shirts and jackets.

The market for molas has reached fantastic proportions and the commercial demand for them in the United States cannot be met. Orders for thousands are received by local wholesalers, but only hundreds at a time can be supplied. On the islands most visited by tourists the Indian women spend all of their spare time hand sewing the molas although sewing machines have come into use on a few islands.

The design and workmanship of the unique needlework panels have changed from generation to generation during their approximate 100-year history. Among the molas currently being made, however, there is a tendency to reproduce many of the styles and techniques of the past.

Much Conjecture

Although there is no documented evidence concerning the details of the origin of the mola there is much conjecture. The literature on the Cuna Indian abounds with all phases of their culture and frequently describes in general terms what the Indians were wearing throughout various stages in history.

It is known that the Cuna Indians practiced the art of body painting during the 16th and 17th centuries. The women were in charge of the painting so it follows that they were to become the "artists" of the society. Using a wooden stick gnawed at the end to the softness of a brush and working with pigments of brilliant colors made from berries and clays, they covered their entire bodies with designs. It is easy to imagine that their abstractions of plant and animal forms had much of the same linear quality that we find in the mola designs of today.

While the men of this period enjoyed

comparative nakedness, the women had a tradition of modesty. Cotton was cultivated and a homespun-type of cloth was woven for clothing. The women of the 17th century were described as wearing skirt-like garments that were tied behind, but no upper garments. The skirts were made of handwoven cotton or occasionally of old clothes obtained through trading.

One explorer in the 1680's reported the women as wearing cotton clothing "curiously embroidered," but since this period preceded the arrival of commercial needles and thread, and the Cuna Indians did not weave or inlay designs in their cloth, one could theorize that the garments were handpainted in a technique somewhat related to body painting.

Nakedness

There is little information available on the Cuna dress for the years between 1700 and 1850. But a trend away from nakedness had definitely begun by 1700, and by 1850 the women were reported as wearing handpainted, wraparound skirts which were worn under knee-length blouses, usually dark blue and decorated with a band of red at the bottom.

The women still engaged in weaving at this time but they took much more



delight in being able to secure pieces of fabric or old clothes, usually of gaudy colors, from passing traders and preferred to use these since they represented such prized articles.

Trading Ships

A generation or so prior to the close of the 19th century the ingredients of the mola which we know today were the geometric designs and the different colors of cloth. What remained was the integration of these elements. In this case, opportunity was the mother of invention. With the coming of the high-powered looms and the development of color-fast chemical dyes in Europe, factory-woven cloth in a variety of bright colors and prints soon found its way via trading ships to the San Blas Islands.

As the traders brought in more colorful cloth the women began to decorate the hems of their basic blue and red tunics with simple applique. Needles, thread, and scissors also were easily procured items from the trading ships of the late 1800's. The particularly intricate Cuna "applique" technique itself appears to have been an indigenous development. Actually, the term "applique" is not technically accurate in this case. The term "cut work stitchery" would be more descriptive, for the Cuna method began by cutting slots and outlines of figures in the top layer of cloth, turning under the edges and allowing the color of the cloth underneath to show through. It is only applique in the sense that layers of cloth with designs cut into them are "applied" to a bottom layer.

New Art Form

The women, apparently carried away with their new art form, gradually widened the decorated hem until by the early 1900's it included the whole area below the armpits. The yoke and sleeves were usually white, although one finds in early photographs that a completely incongruous printed fabric was often used to "top" the artistic needlework, a practice which continues to this day.

It was during this time that a blue, factorywoven cloth suitable for wrap-around skirts became available and fashionable, and so the blouse was shortened to hip length in order that the skirt could

show. Skirt styles have not changed basically since.

The cutwork panels which formed the back and front of the early blouses were usually of two or three layers of cloth. Red, orange, and black became the favorite basic color choices. The designs were most frequently geometric, continuous-line compositions with about an equal distribution of background and foreground colors. When figures did appear they were highly stylized and abstract.

This same style of the early 1900's is still being produced today.

As the mola grew in size, it also grew in complexity. The brilliantly colored cloth of good quality that was available had the same effect on the women of San Blas as a large box of crayons has on a small child.

By the 1920's the Cuna women were known to have one of the most striking costumes among the indigenous people of the Americas. No visitor failed to report the colorful apparel and he usually tried, with success, to obtain an example of this remarkable folk art.

Hardy Visitors

Visitors were few and hardy in those days, usually limited to scientists, Panama Canal employees, and adventurous tourists. But the mola of this period was relatively crude compared to what it would become in the next generation. The parallel spaces in the cutwork was often $\frac{1}{2}$ to 1 inch wide and in some of the photographs taken prior to 1930 one can even see evidence of the stitches.

The unique geographical location occupied by the San Blas Archipelago, located off the Caribbean shore of eastern Panama, is no doubt responsible for the Cuna having a longer history of contact with Europeans than any other Indian group of the Americas.

Beginning with Columbus, who in 1501 gave the San Blas Islands their name, there has been an unending stream of explorers, exploiters, buccanniers, would-be settlers, surveyors for the railroad, builders of the Canal, missionaries, U.S. military forces, scientists, and tourists. And yet, from earliest recorded times, the Cunans have resisted integration with other groups and have



The author holds a "bird" mola blouse with a background of applied triangles.

managed to retain their own integrity.

The increased exposure to other cultures, however, did have the effect of creating new inspiration for mola designs. Any subject was fair game for translation into their unique visual vernacular. In 1938, the islands were opened for day tourists and it was not long afterward that the mola became an elaborate masterpiece of four or five layers of cloth and as many colors.

Wide Repertoire

From the 1950's to the present, the wide repertoire of subject matter included such nonindigenous items as product labels, magazine pictures, calendar art, pictures from children's storybooks, Christian iconography (following the arrival of missionaries), and illustrations of current events, as well as interpretations of their own folklores and scenes from everyday life. These professional-primitives had reached the epitome of fusing originality with borrowed ideas.

Add to this an ever increasing supply of materials and a growing enthusiastic market of tourists, private collectors, interior decorators, fashion designers, gift shop owners, and museums and the results could be termed the heyday of the molas.





Clusters of thatched roof huts cover the San Blas Islands where the Cuna live in small communities

(Continued from p. 23)

With so many hands busy sewing molas to meet these demands the question of quality arises. Are all molas works of art? Probably not. In a primitive society, native crafts are originally made for utilitarian purposes, whether ceremonial or practical. Art is not a profession as it is in Western civilization but a social duty. When everyone not only can but must produce, it follows that the clumsier hands are going to produce inferior work.

Anybody's Guess

Recently, the mola has experienced a further lessening of quality due to a speeding up of the length of time spent on sewing each panel. It is estimated that the average panel takes from 4 to 6 weeks to complete. How much of this time is spent in actual sewing hours, however, is anybody's guess. The women spend every free moment sewing and they usually have several pieces of needlework going at one time.

But despite the fact that for a while it looked as though there would be enough of these brilliant panels to cover the earth, at the rate that molas are leaving the islands the supply will eventually diminish. And although a few of the very complex and good quality molas are still being made, it is at an ever

decreasing rate. There are still some old but good ones to be found but this supply is also on the wane, and once they are gone—like the Old Masters, they will never be replaced.

The time spent, the care taken, and the quality of materials used all combine to make the mola an outstanding achievement among folk art today. There is such a tremendous variety on the market that the prospective buyer could easily become confused. Here are a few guidelines.

First, styles may vary from very simple, two-layer designs to the ultimate in complexity with four or five layers of cloth and intricately embroidered detail. So, examine the mola for number of layers of cloth.

A Clue

Second, notice the quality of fabric used. If you can, try to determine if it has been worn and washed. This would give you a clue to its durability. There are some very old molas which were made with quality cotton and have survived countless washings and wear with little or no fading. But thin and even synthetic material is often found in the molas currently being produced.

Third, examine the width and evenness of the lines and spaces. The more carefully sewn molas may have spaces

no wider than $\frac{1}{8}$ inch. And there was a time when a good mola was one that had no space greater than one $\frac{1}{4}$ inch without some work on it. In addition, good stitching does not show on the top layer, only on the bottom.

Fourth, besides the more frequently seen "slot" technique used for filling in background areas, there are other more time-consuming techniques. These include filling large areas with tiny dots, a modified Greek-key motif, and surrounding the edges of figures with a saw-tooth pattern or one that resembles tiny gears, to mention a few.

Fifth, color and subject are largely a matter of personal taste. There are those collectors who find the subtle tones of the old, closely keyed panels highly desirable. On the other hand, some prefer the ones made with vibrating and bright colors. Also, clashing colors are often used to achieve striking effects. As far as subject matter goes, the variety is infinite and whether you prefer an Adam and Eve wearing top hats, a portrait of a famous person such as General MacArthur, or perhaps an amazing reproduction of a sardine can label, is entirely up to you.

Prices

Prices on the San Blas Islands begin at \$2.50 for a very ordinary mola panel. A whole blouse, right out of a Cuna woman's wardrobe, can usually be purchased for from \$5 to less than \$10. In Panama City and Colon, prices begin at around \$5 a panel and increase according to quality.

Collectors' items begin at approximately \$25 and sometimes reach \$100. In the United States it is difficult to find any of the San Blas needlework for less than \$10. The panels are frequently sold framed which increases the price considerably. In a May issue of the *NEW YORKER* magazine, an article describing a new gift shop stated that mola wall hangings sold at \$40 to \$45 each, and mounted on a 20 x 24-inch piece of Formica, \$75.

There are many theories regarding what the future of the San Blas Cuna Indians of Panama might be. Their reluctance to join the 20th century may preserve them and their art. And, perhaps, these Indians, with their fantastic imaginations, marvelous innate sense of design and color, and their skill, will continue sewing in spite of creeping civilization.

Mrs. Corin has taught art in the Canal Zone and recently completed her master of arts thesis in art education on the mola.



THE MOLA achieved art status when Dr. Louis Hoover, head of Illinois State University Art Department, decided to devote the remainder of his life to helping the Cuna artists. Dr. Hoover first collected more than a thousand quality molas from all the areas of the San Blas. These molas formed a background or research group for study, classification, and development of nomenclature. After many trips into the Cuna country and long talks with the tribal leaders it was possible to begin to understand the stories being told by the molas.

In December 1968, the Hoover Collection was unveiled for the art world. The Center for Inter-American Relations in New York held an exhibit and turned all its facilities over to the collection and printed an extensive catalog. The exhibit next opened at the Pan American Union in Washington, D.C. where the Ambassador of Panama held a formal reception attended by President Nixon.

Following these beginnings the collection has been sought by museums and galleries all over the United States and Canada. Molas as art are now accepted and as a result higher quality molas are being avidly sought. This should lead to the ultimate realization that a mola as a tourist souvenir and as an art object are two separate entities.

The Hoover collection has made it possible for anthropologists and sociologists to study the "writings" of the Cuna in great detail. One mola in the Hoover collection is identical to a third millennium Mesopotamian drawing. Recent indications are that designs such as this were transmitted down through the ages by grass weavings until the molas offered a better medium.

W. D. Barton, Islandia.

Modish Molas

Photographs by
Arthur L. Pollack

WHAT DO PEOPLE DO WITH molas?

While the Cuna women in Panama's San Blas Islands are doing exactly what they always did with them—wearing them as blouses—mola fanciers in Panama and the Canal Zone are fashioning them into everything from purses to lampshades.

And there is no generation gap where their use is concerned. They are found on the seat of teenagers' jeans as well as the skirt of mother's party dress. Grandmother may have a mola-decorated knitting bag while her granddaughter carries a mola shoulder bag.

The traditional mola which is proving so popular with amateur as well as professional designers, is rectangular in shape and consists of three to five layers of various colored cotton cloth. The intricate designs are fashioned by cutting through the layers of cloth to the color desired and the edges of the design are sewn so that the stitching cannot be seen. The technique has been described as "reverse applique" or "cutwork stitchery."



Mrs. Sherry Holland, of Diablo, models a skirt which she designed to be worn opened up the side or the front.

The Cuna seamstress makes no preliminary drawing but starts out with a picture idea and develops the design as she goes along. A good mola may take a month or two to make.

Custom-made molas may be ordered—at a slightly higher price. Just show the inventive folk artists of the San Blas a picture or sketch of the subject you want depicted and you'll have a mola that is not only personalized, but a unique conversation piece. Of course, the results are sometimes surprising. A likeness of your family dog, for example, may be so highly stylized that he'll come out looking like a giant anteater. But no one else will have a mola like it.

Until recently molas were simply framed on a background of colored burlap and hung on a living room or den wall, but they are now being given new dimensions by imaginative people with a propensity toward individualism.

On these pages are some of the interesting ways molas are being used by Isthmian residents with a flair for fashion.

Zindy Wiggs and her colorful shoulder bag attract the attention of the Deakins twins, Tim and Tom, as she strolls down the street in Gamboa.



Viveca Kochman, Canal Zone College student, wears a brightly colored traditional mola blouse with white bell-bottomed pants.



Mrs. Earl R. McMillin, of Gamboa, models mola-covered shoes. At left is a handbag featuring the same colors as the shoes.

Mrs. Charles Griffiths, wife of the Commander of the U.S. Naval Forces Southern Command, who collects items with a turtle motif, holds a turtle made from a mola which was given to her by a friend as a souvenir of Panama. On the floor are a few others from her collection. At right: A unique piano bench cover made by Mrs. William H. Beeby, of Balboa Heights.



The Classic Cuna Costume



THE CUNAS USE TWO MOLAS to a blouse, one in front and one in back, usually of the same design and color. They add sleeves and a yoke edged with borders of a blending color.

The early Cuna blouses were knee length and were decorated with a band of red at the bottom. As colored cloth became more common and as island traders brought in needles, thread and scissors, in exchange for coconuts, the women expanded their decoration, shortened

the blouse to waist length, and gradually developed the technique of cutting outlines of the desired figures in the top layer of cloth allowing the next layer to show the design.

Not unlike fashion-conscious women all over the world, a San Blas lady discards a blouse when the colors get dull or when she feels the need for a change in wardrobe.

Having discovered that tourists will buy almost anything made of molas, she usually offers the used blouse for sale or rips it apart and sells the two molas separately. Serious collectors are always on the lookout for these as they know that the Indian women save the best ones for themselves and the used molas, though faded, are often superior in design and in needlework.

An attractive San Blas seamstress wears the typical everyday costume of the women of the Islands.

Quite different from the traditional Cuna blouse is this one made by Mrs. Holland. Around her waist is a mola necktie.



Thirty molas were needed to make this banquet-sized tablecloth which Capt. Julius Grigore, USNR, took with him when he left the Canal Zone following his retirement.



Anne Castles, Canal Zone College student, wears a bikini which she made from two molas.

Cane Cages Come in Many Shapes

By José T. Tuñón

TURNING waste materials into something attractive and saleable is the dream of every potential entrepreneur. That dream coupled with imagination has turned the hobby of making reedlike birdcages into a profitable home industry in Panama.

A small group of Panamanian farmers near the highlands of El Valle de Antón spend much of their spare time collecting the raw materials and forming them into intricate birdcages of various sizes and designs—miniature houses, churches, fire stations, airplanes, helicopters, pagodas, and recently, one 7-foot model of the Thatcher Ferry Bridge was made.

The cages are not made of reed, but



Heriberto Sánchez shows the coconut leaf fiber used to join the pieces of sugarcane stem and to reinforce the birdcages.



from the stem of the sugarcane and from the hard center strip of coconut palm leaves.

The farmers most active in this small industry are from El Copecito and El Espino, communities approximately 60 miles west of Panama City near the entrance of El Valle—the home of the rare golden colored frog and the strange tree with a square trunk.

Oldest Industry

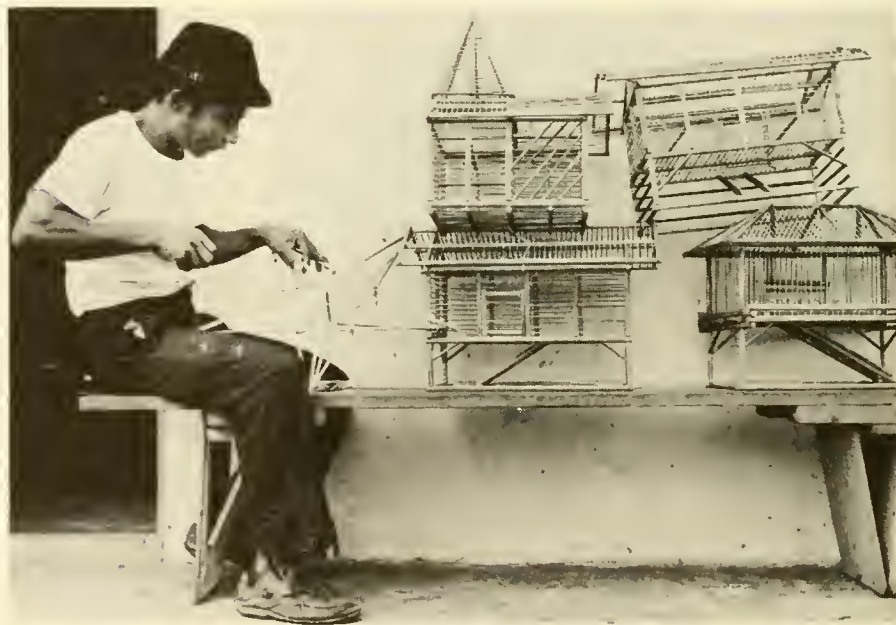
Growing sugarcane is perhaps the oldest and most widespread industry in the Republic of Panama and in the last 20 years it has grown into a major export industry.

The farmers use every part of the cane. From it they make a sweet refreshing juice called guarapo. In the old days it was sometimes left to ferment and the

result was a fairly strong drink the natives called cimarrón. Guarapo also is boiled until it has the consistency of molasses or until it sugars. This brown sugar is molded into blocks and used to make sweets and candies. Until recently, families in the Interior sweetened their coffee with sugarcane molasses or the brown sugar. As the industry grew additional refining was necessary to sell the sugar on the world market.

Another industry which uses the sugarcane as raw material is the important rum industry of Panama. Although the rums are not widely exported, they are considered by many rum drinkers as among the best in the region.

After the juice is extracted from the cane, the fibrous residue, or bagasse, is used for fuel. In some areas bagasse is



At top: Holding a helicopter, one of his more difficult designs, and surrounded by other cages which attest to his skill as an artisan, is Julio Torres of El Espino. Above: Heriberto Sánchez makes a star-shaped cage on the porch of his home in El Copecito.

made into wallboard. The leaves also are used, for cattle fodder. What is left is the slender stem, or viruli, of the sugarcane blossom which for many years has been used all over Panama for making kites and more recently the birdcages of El Valle.

Construction

Viruli is easy to handle and is fairly strong. The pieces may be cut or broken at any desired length. Strips of coconut leaf fiber are used to join the pieces of stem to reinforce the bird cage construction. Though fragile looking, the cages are durable and withstand the weather even if hung outside for years.

One of the manufacturers of the birdcages is Heriberto Sánchez. He is an expert and some of his creations are true works of art. His tools include a machete for cutting the coconut palm leaves, a well sharpened penknife for extracting the fibers from the leaves, and an awl for making holes in the stems to place the fibers.

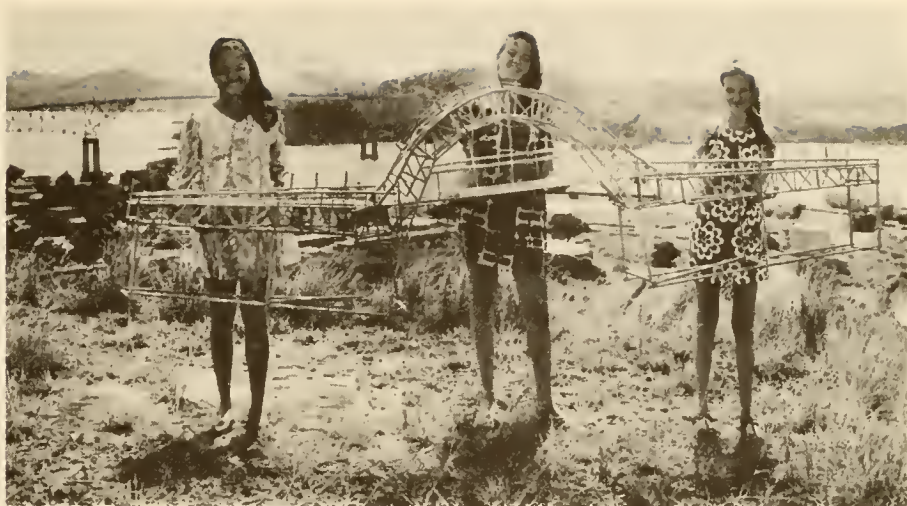
Most of the cages Sánchez makes are in the form of a house or a church. But his pride and joy is a model of the Thatcher Ferry Bridge. For the base he used two 7-foot lengths of white cane (of the same family as sugarcane) often used for building the rustic native huts of the Interior. He sold the bridge cage to Miss Marsha Collins of the Canal Zone. It was so big it had to be divided into three sections so it would fit in the car.

According to Sánchez, the best time to cut viruli is in November when the sugar cane is in bloom. A 13-year-old nephew, Enrique Quintero, helps him to cut the cane and to make the birdcages. The boy's real ambition, however, is to go to school in Panama City and learn to be an airplane mechanic. The money he earns goes toward his education.

Filled With Cages

Another artist at making birdcages is Julio Torres, an 18-year-old youth from El Espino. His father has a grocery stand on the side of the road. Torres has a bohio in front of his father's place and it is practically filled with cages of all kinds. His creations average about 2 feet in length and 1 foot in width. In the cages are little bars for the birds to perch on. He sells the simple cages for \$1.50 to \$2 and the more complicated ones for \$3. Others, depending on the work involved, cost a little more. It takes from 1 to 2 days to make a cage, depending on the size.

A cage in the form of a house, pagoda, tower, or airplane takes about a day to make. A helicopter takes a little longer.



Marsha Collins, center, of Diablo Heights, with the help of her sister, Cristina, right, and Carmen Graciela Lee, displays the model of the Thatcher Ferry Bridge which she bought from Heriberto Sánchez. In the background is the real Thatcher Ferry Bridge which crosses the Panama Canal.

A fishing boat with cranes and net throwers takes much longer to make and sells for \$3.50. Torres, who has a grade school education, makes his living on the birdcages. Since business is not very good during the rainy season, he makes most of them in November and has a large supply ready when the dry season sets in and visitors go to the area.

On some Sundays he earns as much as \$35 selling birdcages.

An effort is being made by the National Artesan and Small Industries Service (SENAPI), sponsored by the United Nations and the Panama Government, to find other markets for the cages.



Heriberto Sánchez shows the intricate work involved in fashioning a star-type cage.



A building material with many uses, viruli is also used to make picture frames.



Heriberto Sánchez cuts the fully developed slender sugarcane stem, the material from which the cages are made.

From Panama's Primitive Past Comes The



FASHIONABLE CHAQUIRA

Mr. and Mrs. Dionisio Santos and their infant daughter with chaquiras which they brought from their home in Veraguas Province to sell in Panama City. He is wearing a ceremonial hat and a chaquira which the Guaymí men wear on festive occasions.

THE CHAQUIRA

AN INDIAN warriors' ornament has made its way from the primitive environment of the mountains of western Panama into the world of feminine fashion, and it is winning women's fancy.

The ornament is the chaquira, a shoulder-wide collar of brightly colored beads arranged in geometric designs now used by women for both daytime and evening wear. It is also still worn today by the Guaymí Indian men, whose ancestors were the formidable fighters the conquistadors rated among the most skilled of all the warriors in the Western Hemisphere.

No longer the fierce warriors of yore, the present-day Guaymies, some 35,000 in all, live under the laws of Panama in the provinces of Veraguas, Chiriquí, and Bocas del Toro. Their children attend Panama schools, but they still keep aloof from people not of their own culture and retain many of their aboriginal customs and practices.

The chaquira was first mentioned by European historians in documents dating back from the early part of the 17th Century. It was quite different from today's ornament. The colors were dull and it was not so tightly beaded as modern-day ones. It was fashioned of pebbles, pieces of bone, seeds, and sea shells which the Indians colored with homemade dyes.

Sold In Shops

The brightly colored beads and varied designs of the chaquiras now being sold in the shops reflect the Indian's present-day ability to buy beads of whatever shape, size, or color needed.

Fray Adrian de Santo Tomas, who ran a mission in 1622 in what is now the town of Remedios, Chiriquí Province, described the chaquira as the ornament worn by Guaymí men during their major festivals—a sort of emblem of Guaymí nationality.

The Spanish conquistadors found three distinct Guaymí tribes in western Panama; each named after its chief; each spoke a different language. The three big chiefs were Urracá, who ruled in what is now Veraguas Province; Natá, in the territory of the Province of Coclé; and Parita, in the Azuero Peninsula.

Of the three, Urracá is the most famous. He not only defeated the Spaniards several times, but was the only one among the rebel Indian chiefs who

Mrs. Ginny Arias, of Diablo, adjusts the black and white chaquira which she is wearing with a black dress.



forced a captain of the Spanish Empire, Diego de Albítez, to sign a peace treaty. This was approximately 1522.

His Feats

A measure of Urracá's temper is provided by the account of his feats after Albítez's successor betrayed and imprisoned the Indian chief.

Sent in chains to Nombre de Dios on the Atlantic coast, probably for transfer to Spain—according to historian Bartolomé de las Casas—Urracá escaped and made his way back to the mountains, vowing to fight the Spaniards unto death. And he fulfilled his vow.

In his last years, Urracá's name was so feared by the Spaniards that they avoided combat with his men. When Urracá died in 1531, surrounded by friends and relatives, he was still a free man. He probably was laid in his grave with a chaquira covering his shoulders.

After Urracá's death, the other Indian chiefs carried on the fight against the white invaders, taking refuge in the steep mountains of Veraguas and the Tabasará Range where the Spaniards' cavalry could not maneuver.

By the 18th Century, the Guaymies were divided into two large groups: those of the tropical forest (in the highlands of Veraguas and Chiriquí) and those of the lowlands (along the Atlantic coast, from Río Belén to Bocas del Toro). They never surrendered, fighting until the collapse of the Spanish domination in the Americas.

In Oblivion

When Panama broke away from Spain and joined Colombia in the early 19th Century, the Guaymies remained in oblivion in their mountain villages.

Slowly they are now being incorporated into the national fold. Guaymí teachers and law-enforcement officers help the effort. At the last graduation of the Felix Olivares High School in David, Chiriquí, an honor graduate was a Guaymí student, Miss Matilde Salinas.

Her ambition: to study medicine and to return to the mountains to work among her people.

Other young Guaymies are leaving their mountain homes in increasing numbers to work in the banana plantations in Chiriquí and Bocas del Toro. They bring back new things and new ideas which they share with their elders—transistor radios among them.

While the chaquira remains a symbol of the Guaymí culture, it is no longer a treasured warrior's ornament fashioned painstakingly by female hands within the closeness of the family circle, but a vastly sophisticated commodity to which mass production techniques are being applied. Its production is an established source of income for the Guaymies.

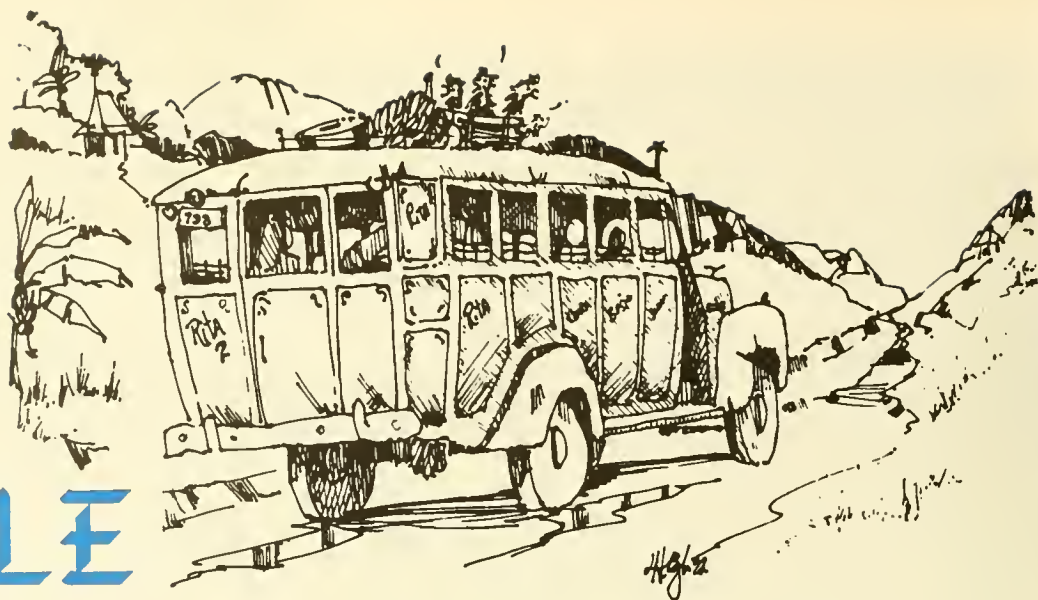
Small Shops

In olden times, it took perhaps as much as 4 months to fashion a single chaquira. Today, in much less time, dozens of the collars are produced in small shops to fill orders from the cities. And men now work side by side with women turning out the ornaments.

Along the Inter-American Highway near Tolé, the town closest to the Tabasará Range, Guaymies and boys from Tolé peddle chaquiras of all sizes and colors, starting from about \$6. In fashionable Panama City shops, the collars sell for \$15 and up.

Perhaps the very masculinity that the chaquira symbolized centuries ago is the intangible lure that has made it an ornament prized by women in modern times. The noted U.S. historian and archaeologist Samuel K. Lothrop, in his "Archaeology of Southern Veraguas, Panama," rated the Guaymí warriors thusly:

"In the opinion of many, the natives of Veraguas should be ranked with the famous Araucanians of Chile as the outstanding fighters of the New World, a judgement shared by Spanish veterans who had served in both regions."



MOBILE MASTERPIECES

By Vic Canel

*The artwork on Panama buses and "chivas"
is a colorful expression of individuality*

FREE LOVE," "HOT PANTS," "Mr. Big Stuff," may sound like titles for X-rated movies, but they're not.

These, along with many proverbs, sayings and catch phrases, are names given to their vehicles by imaginative Panamanian bus operators as an expression of their individuality. Usually lettered on the rear of the bus in Old English script with fancy flourishes and capricious curlicues, the names are a part of the colorful decorations that makes Panama's buses unique.

The more elegantly decorated buses have brightly colored paintings inside and out, ball fringe on the windows, religious figurines and fanciful touches which may include gaily dressed dolls or crocheted items.

Perhaps as a tribute to Panamanian womanhood—or to womanhood in general—a girl's name is often painted on each of the side windows.

Naming buses is said to have started when the first self-propelled public conveyances made their appearances in the cities, during the second decade of the century. Those early vehicles,

called "chivas" (goats) were nothing more than sedans or pickup trucks with the after end removed and replaced by a wood and tin body. They accommodated six or eight passengers on lateral benches and the entrance was at the rear.

The name "chiva" is said to be derived from the fact that the solid wheel vehicles jumped like mountain goats when driven over Panama's cobblestone streets.

Samuel Lewis, a retired Panamanian journalist and publisher, recalls that among the early pioneers of public transportation in Panama, circa 1911, was a Jamaican chiva operator who for reasons known only to himself, permitted no women aboard his rattletrap conveyance. He would drive down the street soliciting passengers and shouting: "Men Only!" But apparently his male chauvinism was no obstacle to success. Mr. Lewis says he prospered and soon bought a second chiva.

Operators gave chivas pet names to distinguish them from those of their competitors. Their efforts at originality produced some fairly spicy names and,

at one point, the mayor of Panama ordered names removed from all public conveyances. The custom was later revived however and extended to the larger buses.

Some of the first chivas were chain-drive Ford pickup trucks operated by East Indians in turbans. Hindus were the principal operators of bus transportation in Panama before World War II.

In the beginning, there was no organized transportation and no large fleet operators. But enterprising individuals ran their own jitney service to take employees to work. Among the first was a Canal employee named Harry Conley who had a small bus in which he took coworkers from Ancon to the Administration Building and back during the 1920's. But a great majority of bus operators in the years that followed were East Indians.

During World War II, when the number of workers in the Zone increased with the employment of additional personnel for defense projects, concessions were granted to some 20 bus operators to provide service in the Canal Zone, including military reserva-



A bigger than life-size portrait of Franco Nero, star of Italian Western movies, peers menacingly at tailgating motorists from the rear of this Chorrera bus. The actor also is featured in the interior decorations which include a cartoon reproduction over the mirror that says "Love is . . . to travel with Franco Nero every day." The fancy sign on the rearview mirror says "I will always be for you."



Teodoro "Billy" Madriñan has specialized in painting scenes on buses since the 1940's.

tions. Most of the concessionaires and their drivers were Hindus.

Gas and tire rationing and the unavailability of spare parts combined to make this service something less than efficient. But it was not until 1952 that the services were consolidated and a single concession granted. The principal stockholder was an East Indian merchant, Gursan Singh Gill, who owned two oriental stores in Panama City, and most of the drivers, of course, were Hindus.

Eventually, Gill bought out his five partners and sold out to the present operators of the Canal Zone bus service.

The 70 or 80 chivas still seen in Panama are destined to disappear as the country streamlines its public transportation system and consolidates independent operators and cooperatives into two principal organizations, a co-

Bus paintings portray everything from comic strip characters to figures of Greek mythology. This bus, named "Prometheus in Chains," features a painting of the titan atop the Caucasus as well as a scene of Panama City's Balboa Avenue.



operative known as the Cooperativa de Transporte Metropolitano, and a corporation called Corporación Unica de Transporte.

The evolution from the eight-passenger chivas to the gaily painted 50-passenger buses of today was gradual. Chivas made from cars and pickups were used until the early thirties. Then, in 1934, a Colombian, the late Froilán Arce, got the idea of buying ½-ton chassis and motors and building the bodies locally.

Those chivas remained in service until after World War II. Then, in 1946, the first "busitos" made their appearance. These are the small, 16-passenger blue buses which at that time sold for \$3,600 complete or \$900 for the chassis and motor only.

In 1960, local operators began to import 24- to 30-passenger buses and, as the city grew and the demand for public transportation increased, 40- and 50-passenger buses costing \$9,000-\$10,000, were placed in service.

But throughout, the chiva has survived and is patronized by faithful passengers who usually ride the same one each day and know each other as well as members of a car pool.

Among the principal routes served by today's chivas—mostly of 1952 vintage—is the one extending from downtown Panama along Balboa Avenue to the shanty town called Boca la Caja, east of Paitilla Airport. The ride to the

end of the line costs 10 cents, but the chiva will take you as far as Santo Tomás Hospital for only a nickel.

One driver on this route, Juan Antonio Olivares, has been behind the wheel of chivas for 32 years. In addition to the Chiva he drives on the Boca la Caja route, he owns a small busito. As a small fleet owner—five buses or less—he belongs to an organization called El Tercer Grupo (the third group), made up of small independents who are not affiliated with either the cooperative or the corporation.

So there are basically three types of buses in Panama—the venerable chivas, the "busitos" and the larger buses. Though the earlier chivas were painted with bright and imaginative designs, most of the surviving ones are plain.

The greatest profusion of artwork is now found on the larger buses. There are paintings of pastoral scenes, religious motifs, well-known landmarks such as the bridge that spans the entrance to the Panama Canal, the ruins of Old Panama, likenesses of film and TV personalities and even comic strip characters. A random sampling of buses along busy Vía España or Central Avenue during rush hour can be an amusing pastime. One bus is named "Marshal Dilo"—phonetically honoring the character portrayed by James Arness in the TV series "Gunsmoke." Others are named "The Fugitive" and "The Untouchable." Still others bear

phrases and sayings such as "Let's Forget the Past"; "God Forgives, Not I"; "Forgive Them Lord"; "It's All In The Game"; and "What You See Is What You Get." A few of the signs are in English.

Many of the buses have been lettered and decorated by Teodoro "Billy" Madridrián, a former employee of the Panama Canal Dredging Division, who began specializing in the art back in the forties.

Billy says the custom of painting scenes on buses got started when one bus operator conceived the idea and it was later noted that tourists were stopping to photograph his bus. The idea caught on quickly and soon operators were competing for originality. As they did, the decorations became more and more elaborate.

The cost of bus decorations varies according to how elaborate they are. A simple scene on the back of the bus may cost anywhere from \$15 to \$25. A complete job, with paintings inside and out, lettering of names, phrases and girls' names in the windows can cost up to \$120.

Many Panama bus riders are likely to view with nostalgia the passing of this charming custom as the Panama Government prepares to modernize its public transportation system with shiny new buses which have large picture windows, but, alas, no expressions of individuality.



Some "chivas" do double duty. Those that come from the interior carrying produce, passengers and chickens are popularly called "Chivas Gallineras" (Chicken Chivas).



Paintings of Panama's famous flat arch bridge and its historic cathedral along with a couple in typical dress help to publicize some of the country's tourist attractions.

*More different birds are found here than in all of
North America north of Mexico—approximately 850 species*

Paradise For Bird Watchers

By Fannie P. Hernandez

IN THE earliest dawn, before the sun has emerged through the paling sky, a sleek, black, yellow-eyed, male grackle nestled in a mango tree breaks the silence with a serenade to the new morning. His tune is of long drawn out notes, cheerful, throaty, subdued, yet loud enough to awaken anyone in the vicinity. The female, brown and smaller, quietly chatters back from a nearby palm frond.

The handsome fellow singing with all his heart is also known as a clarinero—one of the abundant bird fauna inhabiting the Isthmus of Panama. An ornithologist's paradise, there are more different birds found here than in all of North America north of Mexico—approximately 850 species.

Best Months

Though the abundance of birds is evident throughout the year, April and early May are especially favorable for bird watching. It is the beginning of rainy season, a time when not only the native species but also the North American birds in migration may be observed. South American species flying to Central America also can be seen.

It is estimated that 6 billion birds, adults and young, moving at night from Canada and the United States, migrate to southern United States, Mexico, Central America and South America each winter. A large number of these are seen in Panama.

Besides the striking grackle which may be seen most anywhere except the dense forest, are the birds of the tanager family noted for their brilliancy

of plumage. They are blue, yellow, green, and red. The crimson and black species locally called "sangre de toro" is usually seen at the edge of the jungle or along the roads in the Interior.

At this time of the year, the lovely musical notes of the Panama thrush tanager may be heard ringing out from the jungle. One of Panama's most beautiful birds, this tanager is dark slate with a rose-red stripe on the sides of the forehead broadening in front of the eyes. The male has a loud sweet whistle of notes in different pitches.

Related to the tanagers are the honeycreepers, the family of small song birds which abound in the humid, heavily wooded areas of the Isthmus. Bright



also observe on the Panama countryside barred ant shrikes, sparrows, Panama robins, which resemble their northern relatives, hummingbirds, woodpeckers, saltators, wrens, the "pico-gordo," the thick-billed euphonia, which has a sweet canary-like sound, and flycatchers, which probably outnumber them all.

Busy little seedeaters are very numerous at the end of the dry season and the mangrove warbler is always to be found in the swamps. Of special interest to the bird watcher is the oropendula which suspends his long hanging nest from the branches of large trees. The male sings a long-drawn, far-carrying liquid gurgle as he bows forward into an inverted position, raising his wings above his back.

Doves are abundant and very tame in the fields, gardens, and along the roads. A flock of ducks is not a rare sight.

Along The Shore

Shore birds, practically all migrants, are abundant. Sea birds also are numerous and breed in immense numbers on the islands in Panama Bay. Laughing gulls, royal terns, brown pelicans and frigate birds are usually seen along the shore.

Another large family of birds is that of the kingfisher ranging in size from a small songbird to a crow. They are found near the water and feed on small fish which they catch by plunging into the water. They nest in holes in trees and banks.

The motinots, related to the king-



shades of blue and green predominate in the males and yellow is prominent in some species. One of the most brilliant is the red-legged blue honeycreeper. The male is deep sapphire blue with a turquoise crown. Part of the underwing is yellow and flashes out brightly when the bird is in flight. The female is olive green with underparts of paler and brighter green. The honeycreeper rarely sings in full daylight, but in the breeding season, the male sings a weak, unmelodious song at dawn.

Grassquits

Common and comical to watch in the open fields are the small blue-black grassquits that leap vertically several feet and alight again in the same spot, uttering a few short notes during the jump.

On a spotting tour, a birder may





Birding On The Isthmus

(Continued from p. 37)

fishers, are beautiful birds of green, blue and russet with graduated tails bare about an inch above the extremities, forming racket-shaped tips. The bird itself preens off the barbs. Motmots are found in the deep forests or dense thickets, often sitting in one place for a long time.

A fairly common bird in woods and undergrowth is the squirrel cuckoo, somewhat like the widely distributed long-tailed members of the family.

A slow, melancholy call, like a whistle of variations is heard in the savannas. It is the northern striped cuckoo, called "tres pesos" by the Panamanians. These birds call to each other by the hour bringing music to the open fields. Where there are cattle, the tick bird or "garrapatero" is surely to be found as he feeds on insects on cattle.

Toucan

A frog-like croak which may be heard more than half a mile across the open comes from one of the most striking and distinctive of all tropical birds—the toucan, a large jungle bird. It has an enormous, slightly curved yellowish green bill, nearly as long as its body and very thick. The brightly colored toucan roosts in holes in trees and feeds on fruit.

A favorite of bird watchers and non-birders too, is the family of parrots represented by several species on the Isthmus including parakeets and macaws.

Their plumage is highly colored and variegated, with green being the predominant color. Parrots are noisy birds with harsh voices and usually nest in hollow trees, the large species inhabiting the deep forest. They remain quiet during the day but can be heard squawking early in the morning and before dark.

Showiest Parrot

The macaw, the large, magnificent, blue and yellow or scarlet bird, is the showiest member of the parrot family. It has a powerful hooked beak which it uses to crack palm nuts and is extremely noisy. Fairly common, macaws are usually seen in pairs and frequent the tops of trees.

One of the most common and widely distributed birds of the Isthmus is the parakeet. Watchers may observe the orange-chinned parakeet at sunset going from tree to tree keeping up a shrill chattering as it feeds. The Veragua parakeet is apple green passing to bluish green on top of his head with greenish blue wings, yellowish below. The bill is horn color. The smaller "perico" is bright yellowish green with a patch of bright orange on his chin and upper throat. These beautiful little creatures are often caught and sold as cage pets.

Panama, host to many species common to both North and South America besides its own particular birds, offers a veritable field day to bird watchers.



It's More than Pot Luck at LA ARENA

AN ART practiced milleniums ago in the storied lands of Egypt, Chaldea and Crete is opening new horizons for the village of La Arena, some 250 kilometers southwest of Panama City.

Work in ceramics has been known in La Arena, a community of less than 3,000 population, from time immemorial.

Most of the residents now engage in cattle raising, which is the main occupation in the Azuero Peninsula in southwestern Panama, or in agriculture. But even before the time of the *conquistadores*, what is now known as La Arena was the place where first the Indians and then the settlers supplied themselves with clay utensils: bulging *tinajas* to keep the water cool on warm days; round pots to cook the daily meals, and a variety of other utensils all made in La Arena. Of course, the baking and the finishing were primitive, but customers in those days were not as exacting as now.

From the very beginning, women took over pottery work in La Arena for reasons no one can explain. Their primitive ovens can still be seen in the outskirts of the village.

During the thirties, a young woman from the nearby, progressive city of



Chitré, Miss Diana Julia Chiari, was appointed a schoolteacher in the village. She quickly became enthusiastic over ceramics, which she learned from the village women. Every day after school, she studied books on pottery and ceramics, and soon she became more adept than her instructors. She turned the tables—teaching the residents how to improve their techniques, how to apply decorations with clays of various colors and artificial coloring, the method for building indirect heat ovens and generally improving the qual-

ity of their ceramics. The glazing process, in its primitive form, was another forward method taught by the young teacher to the people of La Arena.

Miss Chiari, by then a key community leader, turned her energies to having a pottery school established in La Arena. One of Panama's presidents, Dr. Juan Demóstenes Arosemena, turned the young teacher's dream into reality by founding the National Pottery School in La Arena. Miss Chiari was the first principal.

Diana Julia Chiari was married years later to Victor Gruber, an American, and moved to the Panama Canal Zone. But she never forgot the village of La Arena. She took friends from Panama and the Canal Zone on weekend trips to La Arena to see the work done there.

Another Canal Zone resident, Mrs. Theresa Lutz, visited La Arena, accompanied by an official of the Canal Zone schools. They were amazed at the work turned out from the little pottery school despite the lack of modern facilities and with only a firewood oven. On her return to Balboa, Mrs. Lutz aroused the interest of Mrs. Emily C. Bolton, then president of the Balboa Women's Club, in La Arena's pottery school. The result was that the Club donated to

The Finishing Room at La Arena. With vegetable and synthetic hues, workers apply the various decorations which grow brighter with time.



the school a fine ceramics electric oven. The only condition stipulated by the Balboa women was that the oven should be used exclusively for the benefit of the community. Even today, the oven donated by the Canal Zone ladies is still the best piece of equipment in the oven room of the ceramics center in La Arena.

A little over three years ago, the Ministry of Agriculture of Panama, with United Nations assistance, established in neighboring Chitré the National Handicraft and Small Industries Service—SENAPI—for the purpose of encouraging the development of small industries in various communities of the central provinces of the Republic. It has become a large organization, directed by Pedro Bolaños of the Ministry of Agriculture, Commerce and Industries of Panama, and Jean Barroux of the International Labor Organization.

From the outset, SENAPI centered its attention on La Arena. Panamanian and United Nations experts were assigned to the town to help the National Pottery School progress scientifically and to serve as a model for other communities which might develop ceramics as a small industry. The National Pottery School became the La Arena Center under SENAPI in Chitré.

The project is supervised by Panamanian and United Nations experts: Ivan Zachrison, a Panamanian artist who has specialized in ceramics, and George Cuielle, a French expert in ceramics who also is with the United Nations. They taught the first 16 students who reported to the Center. Currently they are training more than 30 other apprentices. The ceramic pieces are designed by Alberto Chan and Rene Diaz, both Panamanians, and Malcolm Benjamin, another U.N. expert from the United States.

One of the most important phases of the project was to develop the La Arena Center as a cooperative. This was the job of Franz Helm, a German-born authority on cooperatives from the United Nations.

Cuielle points out that top-quality clay is abundant in Panama, especially in the central region. "It is a good industry for the inhabitants of the region," he remarks. "The raw material is quite available and costs them nothing. They have only to manufacture a variety of utensils for which there is a



Fifteen-year-old Luis Calderón, the youngest of the workers at La Arena, utilizing a tiny hand-lathe.

La Arena now stopping point for travelers

demand, and they have a means of livelihood assured."

The La Arena ceramics shop is on a par with the best, thanks to the help of Panamanian and United Nations experts and the equipment furnished by the world organization. It is supplied with indirect heat ovens, including the first one using wood, others employing gas, and the electric oven donated by the Balboa Women's Club. An air compressor facilitates the enameling process which precedes the baking. In a finishing room, residents create bright adornments along the lines of the Indian designs found in the Conte Site in Cocle province.

All types of fine vessels, dishes, and decorative pieces are turned out in a lathe room. Everything from simple dishes to amphoras of pre-Columbian design are produced in this room. Several of the amphoras which are replicas of those found in the Conte Site, complete with designs, have been displayed by SENAPI in the Panama Pavilion at Hemisfair in San Antonio, Tex. They have attracted considerable attention and already European and United States importers are showing an interest in the ceramics from La Arena.

The impact of the La Arena Center (the official designation of the cooperative project in SENAPI is "La Arena Ceramics Industries") has been tremendous in the three short years since its establishment. Its direct sales in 1967 amounted to \$16,000. These are handled in the Center offices in La Arena and through SENAPI in Panama City and Colon, the Canal Zone and other areas of the Republic.

The Center's influence touches most residents of the town. Brothers Victor and Ernesto Murillo are typical examples. The former lives in the center of town and spends his spare time decorating and turning on a lathe vessels and pots. Ernesto owns an indirect heat, firewood oven on the outskirts of town.



Mateo Batista removes from the gas-electric kiln a newly baked pot. The oven was donated to Cooperative Ceramic Industries of La Arena by the Balboa Women's Club in 1963 when the center was still called the National Pottery School.

He built it under the direction of a Peace Corps volunteer. Both brothers learned the art in the La Arena Center and in a few months after striking out on their own, Ernesto had saved enough to buy a small \$1,000 delivery truck.

The annual impact on the town from the ceramics industry is estimated at more than \$20,000, since other families besides the Murillos work at it during their spare time.

The results at La Arena have been so encouraging that SENAPI officials organized another ceramics shop in Chitré under instructor Toribio Ruiz Avila, a native of La Arena. Ruiz already is training the first five of a group of 20 young men from La Peña, Veraguas Province, 254 kilometers west of Panama City.

"The talent for ceramics of these young people is marvelous," Ruiz says. "After two weeks training, they were fashioning delicate clay figures." The young men will form the nucleus of the La Peña Center.

Ruiz was a student under Mrs. Gruver, whom he recalls affectionately. "All I know, I owe to her," he said, recalling his school days.

The La Peña Center is being equipped with a \$16,000 donation from the Panama National Lottery. Labor for the building is being furnished by residents of the town. The Center will specialize in fine ceramics, copying the pre-Columbian gold *huacas*. Because of their small size, there will be no difficulty in shipping these items to principal markets in the United States and Europe.

Thanks to the dedication of a young teacher imbued with the ambition to help others, a small town in Panama—aided by the Government and by the United Nations—is now pulling itself up by its own bootstraps. La Arena has become a stopping point for travelers and visitors, most of who come away carrying a fine ceramics piece decorated with Indian motifs and labeled, *Made in La Arena—Panama*.



A Jewel Among the "Islands of Pearls"



By Louis R. Granger



CULSTERED OFF the south coast of Panama lie a group of more than 100 islands that during the next decade are expected to give a bit of competition to the sun and fun islands of the Caribbean.

Well-known to the boating and fishing crowd of Panama and the Canal Zone, the Pearl Island Archipelago in the Gulf of Panama is stepping into the limelight thanks to a group of Panama businessmen and the Panama Government, all bent on putting the island jewels on every island hopping tourist's itinerary.

Gabriel Lewis, president of the Pearl Island Development Corp., is the leading force behind the project and this month will officially open Contadora Island to tourism.

Already more than \$1 million has been spent to develop the island into a luxury resort, and approximately \$800,000 more will go into the construction of a 50-room modern hotel and 16 two-bedroom cottages to be ready in January 1972. Now available are 10, two-bedroom, centrally air-conditioned trailers; a restaurant and cocktail lounge; and a small rental store for sporting goods and the usual beach and water necessities.

13 Beaches

Although the island is only 2 miles long and $\frac{3}{4}$ of a mile wide, it has 13 beaches and plenty of room for privacy. An airfield nearly 3,000 feet long serves the island, and the corporation owns three twin-engine planes for shuttle service from Paitilla Airport. The fee is \$10 per person round trip, but property owners are given a discount.

It's a 15-minute trip by air and approximately 1 to 2 hours by powerboat. The island lies at the northern end of the archipelago approximately 35 miles from Panama City. There are numerous anchorages for deep-draft vessels and the island has a gas diesel fueling pier.

Once the island gets into full swing, Contadora will be a paradise for the outdoor types, as well as for the naturalist.

Mr. and Mrs. Robert Peterson who operated a sailing school at Fort Lauderdale, Fla., are resident managers of the operation and offer skindiving and sailing classes. Natives from the surrounding islands will conduct pearl diving expeditions for the more adventuresome visitors. Pearl diving was a lucrative business around the Pearl Islands until the



With many tropical beaches and jungle trails, Contadora Island officially opens for tourism this month. On opposite page pretty Karen Hughes, a visitor from Iowa, writes her favorite island's name in the sand, and strolls along the beach in the photo below.

In left photo, Gabriel Lewis, right, developer, chats with Frank Morrice whose company holds the exclusive sales rights to island property. Below is a trail leading through untouched jungle.





A paradise for beachcombers and skindivers, the Pearl Island Archipelago gives up treasures from its past to sharp-eyed visitors. Here Mr. and Mrs. Lewis display some of the items found among the islands. Clustered in the foreground and in photo below are pearls found just off Contadora this year.

1930's when apparently a combination of over-fishing and disease decimated the beds.

But pearl oysters may be making a comeback. Lewis has collected nearly 100 pearls of various sizes off Contadora in 10 feet of water at low tide. (Pacific tides average approximately 14 feet.)

Golf Course

Tennis courts, a 9-hole golf course, and volleyball courts will be added to round out the sporting activities.

Lewis has preserved much of the island forest of guayacan trees, thorny cedars, oaks, and typical island growth, and has let it be known that a good way not to be invited back to the island is to kill one of the black iguanas that inhabit the island. This species grows to about 5 feet and like the rest of the family are harmless to humans.

Indian pottery and 19th Century bottles have been found on Contadora during the construction and clearing. And on a nearby island Lewis found two large diving helmets abandoned or lost by pearl divers.

Lewis plans to retain the natural beauty of the island and not crowd any of the residents or visitors. Actually there is no need to pack Contadora with people. He owns seven other islands in the archipelago which he plans even-

tually to develop. "It all depends on how well the public accepts Contadora," he said.

Part of the island has been subdivided for homesites and additional building sites will be set aside after the hotel is completed. "The reaction has been fantastic," said Lewis. "Already the entire subdivided section has been sold."

If Lewis' own reaction to Contadora when he first saw it is any indication of how others will feel, then the island is bound to be a favorite.

Like a Dream

Just 2 years ago in November Lewis was fishing alone in a small boat when he had engine trouble. He put into Contadora for help. "I found the island to be like a dream," he said. After repairing the engine, Lewis returned to Panama City. "Immediately I started asking questions and found that it was owned by the Pinel family who had been in the pearl business years before." Fortunately, the owners were willing to sell.

Lewis set-up a 5-year program and in February 1969 the first bulldozer started to clear an area for the airstrip. Since then a work force of about 70 men has been kept busy. The Panama National Guard provided some heavy equipment to widen the runway.

During the next dry season the airfield

and all the roads including one that circles the island will be blacktopped. That project is expected to be finished in February 1971 along with a water system supplied by three artesian wells, and an electrical plant with three generators supplying 1,000 kw. Comunicaciones, S.A., will install 80 telephone lines for island communications and 6 lines to Panama City by March 1971, Lewis said.

No Crazy Ideas

Original building sites sold for \$6 a square meter for waterfront lots and \$4 for inland property. The only building restriction is that plans be approved by the management and that the houses "fit in" with the community. "No crazy ideas," Lewis said. Lot owners, he explained, can purchase two-bedroom, air-conditioned mobile homes from the Panama Tourist Bureau for nothing down and \$128 a month for 8 years. Trailer lots, however, must be landscaped.

To Lewis, the archipelago will become the next major tourist area. "These islands will be booming soon. The Government is backing their development and is giving a lot of cooperation. There's a great potential here."

"Panama has an excellent opportunity to develop a strong tourist industry. We have what everybody wants—sun, good beaches, some of the best fishing in the world, and clean, clear water," he said.

Sales Rights

Lewis is not alone in this venture. Frank Morrice III, a partner of Ford, Sosa, Morrice, S.A., insurance and real estate, has the exclusive sales rights to island property. And like Lewis, Morrice first went to Contadora for a reason other than business.

"I heard about the island and went there to see about buying a lot. I fell in love with it right away," he said. Lewis and Morrice became good friends and Lewis offered him the sales part of the business.

Lewis is a family man, the father of five boys and one daughter, and has a close relationship with his business associates. He is general manager of the successful family-owned enterprise of Corrugado Panama, S.A., which manufactures banana packing boxes.

He has the easygoing manner of a man who is sure of himself and knows exactly where he is going.

Morrice feels much the same way about the future of the Pearl Islands as Lewis, but admits that it takes someone like Lewis to make it work. "Gabriel is the pioneer; he's the Robinson Crusoe of the Pearl Islands."



LITTLE IS KNOWN and less is recorded of the Pearl Islands except that they were once the center of important and lucrative pearl fishing, an industry which to various degrees continued for more than 400 years.

The first known written reference to the islands occurs in a letter to the King of Spain from Vasco Núñez de Balboa, dated January 20, 1513. Balboa had not discovered the Pacific Ocean—that was to be in September—but had heard many stories from the Indians about the great “South Sea” that stretched to the horizon from across the Isthmus of Panama.

He told the King: “The Indians state there is another ocean 3 days journey from here . . . they say the other ocean is very suitable for canoe traveling as it is always calm . . . I believe there are many islands in that sea . . . they tell me that there are pearls in abundance of great size, and that the native chiefs possess baskets filled with them, as do even common Indian men and women.”

Since then these islands with their graceful white sand beaches, craggy cliffs, good natural harbors, and a wide and abundant variety of wildlife have led unruffled lives while their tropical cousins in the Caribbean were groomed for the tourist trade.

Sun and Rum

As the Caribbean islands boomed with pleasure seekers by the hundreds of thousands soaking up the sun and rum, the “Islands of Pearls,” as Balboa called them, patiently waited for the limelight.

From 1901 until 1968, when Gabriel Lewis, president of the Pearl Island Development Corp., bought Contadora Island, it was owned by the Pinel family who used the island for its pearl fishing fleet. The Pinel's bought it from great-grandchildren of Félix Moreno who took title to the island and several others in the late 18th Century. Moreno's daughter inherited it on his death in 1836 when the island was called San Francisco de Asís de Contadora.

José Pinel of Panama City, who is engaged in the real estate business, was a child during the pearl fishing days of his family. He said Contadora and several other islands had fresh water necessary for the fleet. Pinel believes that Contadora may have been the island that was used as the counting-house for pearls and mother-of-pearl shell during the Spanish occupation. The Spanish word *contador* means counter; accountant; or auditor, and *contaduría* is translated as accountant's office, accountancy, and auditorship.

The Pinel family remained in the pearling business—both for mother-of-



pearl and pearls—until 1931 when the demand for mother-of-pearl diminished. Most of it was sent to Germany while the pearls were sold mainly in Paris, London, and a few other European capitals. Only a few pearls were ever sold in the United States, Pinel said.

Pearl Fishing

Although the Colombian Government had established conservation practices on pearl fishing prior to the turn of the century (Panama became independent from Colombia in 1903), the production of pearl oysters diminished markedly in the 1930's.

According to Dr. Paul S. Galtsoff of the U.S. Department of the Interior, Fish and Wildlife Service, who conducted a survey of the pearl oyster resources of Panama in 1950, the years of forced inactivity from 1939 through 1943 had no beneficial effect on the oyster population.

“In 1944-45, when the fishery was officially resumed, the divers found the pearl oysters extremely scarce. They also reported seeing, on several formerly productive grounds, many dead or dying oysters,” said Dr. Galtsoff.

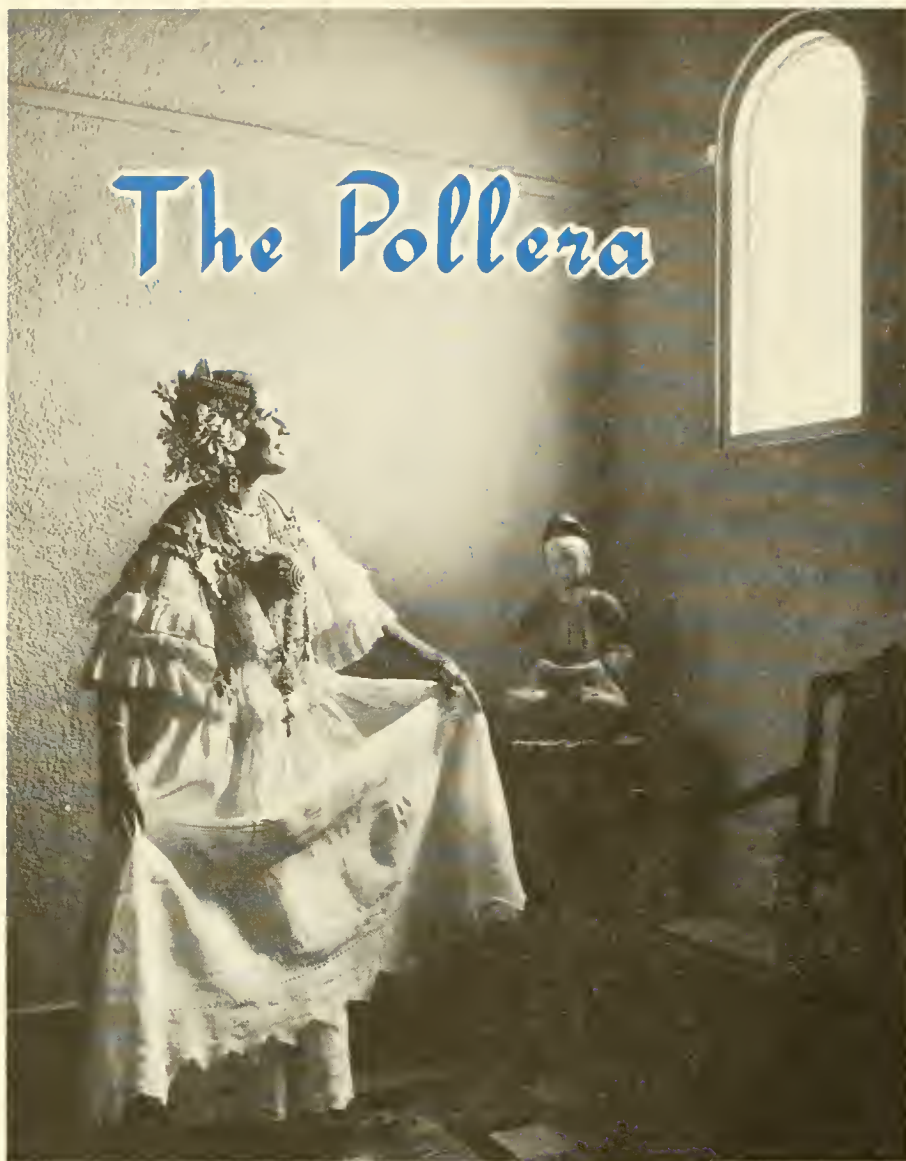
There are no records available of the number of pearls and their value taken from Panama Bay during the Spanish occupation, but it probably was considerable. Modern-day records on pearls and mother-of-pearl shells were not maintained until 1908, and even then the records were only sketchy.

According to the Panama Bureau of Statistics and Census, the best year was 1924 when pearls and shell valued at \$57,524 were taken from the bay. The last year of record keeping was 1938 when it was reported that only 3 carats of pearls valued at \$275 were collected. But the year before, 339 carats with a value of \$10,818 were taken.



At top of page is an aerial photograph of Contadora Island taken earlier this year. It shows the runway, half a dozen beaches and some of the roads. A 50-room hotel and 16 modern cottages will be constructed near the beach at right center. The U.S. Navy Hydrographic Office chart shows some of the northern islands in the archipelago including Isla Contadora, below Isla Pacheca and to the right of Isla Saboga. The islands are approximately 35 miles from Panama City.

The Pollera



By José T. Tuñón

THE APPAREL OF SLAVE WOMEN and nursemaids during the Spanish colonial era of the Isthmus has become, with the passing of time, the national costume of Panama and one of the most beautiful and most admired typical dresses of the world.

From its humble beginnings in the servants' quarters of the wealthy of Old Panama, the pollera gradually invaded the refined drawing rooms of high society, becoming a prized possession of all Panamanian women, from the rustic maidens of the countryside to the high-born ladies of the aristocracy.

There are those who claim that the pollera had its beginning in Spain because of its similarity to the modest dress worn by women in the small towns of Spain in colonial days. And still others will insist that the pollera originated with fashionable ladies of Old Panama.

The idea most accepted, however, is that the dress was inspired by the garment worn by the black slaves, later becoming the dress of the women of the populace, evolving into what it is today, the national costume for women and a symbol of Panamanian nationality.

There are three classes of polleras: the formal dress known as the pollera de gala; the pollera montuna, the everyday dress; and the wedding pollera, originally from the Océ area.

According to Panamanian folklore, the all white pollera was worn by the nursemaids, while other female servants wore the brightly colored calico skirt that became the pollera montuna, the everyday dress.

The Formal Pollera

The formal pollera for festive occasions and holidays is made of fine white linen, cambric or voile. At least 12 yards of material go into its making. It must

be pure white to form a background for the blended tints of embroidered designs of flowers, birds, garlands or other combinations of designs, preferably of native origin and feeling. Exquisite designs are made in cross-stitch or by the use of a more elegant needlework known as "talco en sombra," which is characteristic of Panama. It consists of two pieces of material sewn together. A design is made on one piece of the fabric, and the design is then carefully cut out and its edges hemmed with tiny invisible stitches.

The formal pollera consists of the blouse (wider than the montuna blouse), the skirt and the petticoat or petticoats, as one to three are worn under the gown. The blouse of all three polleras is white and worn off the shoulder. For the formal dress, the blouse has a neckband at the top of the bodice made of the traditional "mundillo," the fine hand-made bonelace made in the Interior, and edged with lace. The band has openings in the front and in the back, where wool pompons are placed. The neckband is interwoven with wool of the same color as the pompons. Two ribbons, called "gallardetes," hang from the waist, one in front and one in the back, and match the color of the wool. The heelless shoes, soft slippers in velveteen or satin, also are of the same color as the wool pompons. No stockings are worn.

A beautifully embroidered ruffle of fine wide Valencian lace is attached to the mundillo band and falls to the middle of the bodice. Another ruffle is added under the first one and this falls to the waist, or to a little lower than the waist. Both of these ruffles are exquisitely embroidered or worked in "talco."

The blouse has push-up sleeves with an embroidered ruffle, also trimmed in lace.

The skirt of the formal pollera is always made of fine white material, fine enough for the handwork on the petticoats to show through. It is loose, full and long, reaching the ankles. The skirt is two piece; the upper section comes to the knees and is separated by an insertion of mundillo lace, with the material gathered in such a manner that it can be spread out and be admired. Twice as much fabric goes into the lower part of the skirt, making a circle.

Above: The intricate handwork on the petticoat of the white wedding pollera is displayed by Miss Marilyn Escobar who is seen at right lighting a candle in Panama's famous Church of the Golden Altar.



Participating in the folkloric dances held at Old Panama during the dry season is Miss Marta Vega wearing the montuna.



Golden chains, including the typically Panamanian "cadena chata," and other gold jewelry, such as coins in filigree frames, are worn with the formal pollera.

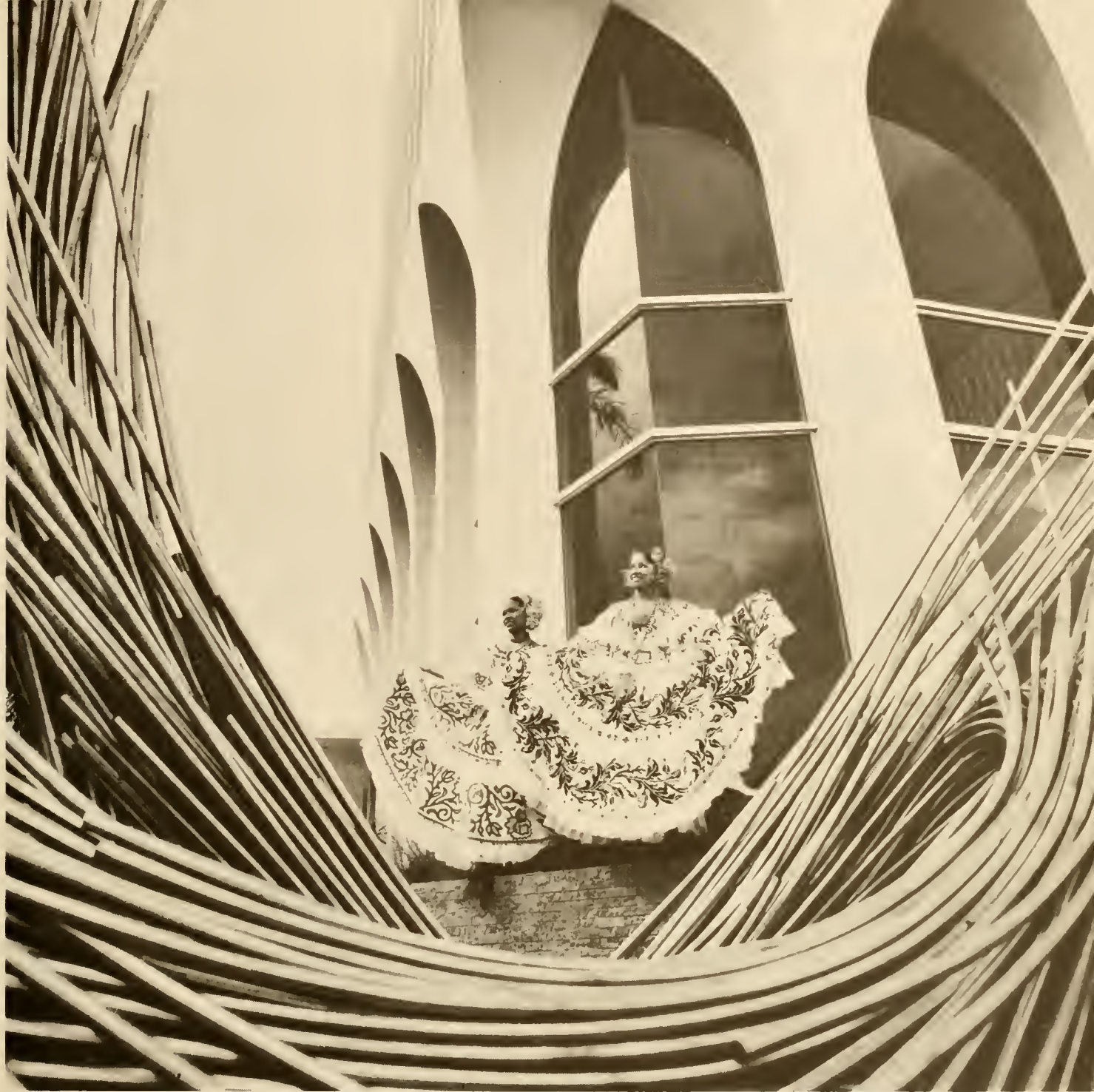


The elaborate jewelry and combs, encrusted with pearls, are as impressive from the back as from the front.

The edge of the skirt is trimmed with about 25 yards of lace, 4 or 5 inches wide. The magnificent skirt is gathered at the waist and tied by four narrow ribbons, two crossing in the front and

two in the back, running through the button holes of two gold buttons at either side of the waist.

The petticoats are handmade of very fine white linen, as elaborate as the



Framed by the modernistic sculpture which stands in front of the Pacific-Atlantic Bank in Panama, Leyda and Marilyn Escobar display the magnificent skirts of their polleras. The unusual metal sculpture is by Adolfo Arias, Jr.

skirt, with laces, cutwork and embroidery. Usually two are worn with the pollera, sometimes three.

The hairdress is an important part of the pollera. The hair is parted in the center and tightly pulled back behind the ears, forming two braids. The braids are covered with several pairs of "tembleques," the glittering sprays of flower-like filigree ornaments made of gold and silver and pearls, their flexible stems "trembling" as the wearer moves. Two

kinds of combs are worn, one crested with elaborate gold work, called "de balcón" as they resemble the design of balcony railings. These are placed toward the back of the head on either side. The others are called "de perlas" because the gold work is encrusted with pearls. These are worn a little to the front of the head. Earrings are large, of various shapes, in gold or silver, with rosettes of pearls or coral.

Several gold chains around the neck,

from four to eight, are part of the jewelry worn with the formal dress. These include coral and pearl rosaries, gold coins in filigree frames on plain gold chains, a gold cross on a chain or a narrow black ribbon, gold cords with religious emblems, scapularies, and the "cadena chata," the flat chain with a gold fish at the end. It is absolutely Panamanian in significance and, according to legend, in the old days, when a

Culinary Capers



THE SKILLS AND STAMINA OF some of the best roadbuilders of this hemisphere will soon be put to the test in the dense jungles of the Darien Province of Panama and northwestern Colombia where construction of a 250-mile highway will supply the link now missing from the Alaska to Argentina intercontinental road system.

Culinary Capers invites REVIEW readers to go along on an armchair journey with these forgers of progress and makers of cement ribbons to savor the region's primitive nature before it is swept away by the near-magic of 20th century ingenuity.

Adventurers' tall tales of the Darien tell of headhunters who blow poison darts from the treetops, of swarming blood-sucking insects, of bottomless morasses, of ferocious jaguars, and wild boars. Let us have a look at the Choco Indians and the vital sources which have sustained them on a jungle-river-based economy.

Roadbuilders

The roadbuilders and their bulldozers will cross one of the world's largest swamp areas, jungle rivers, hills and valleys, and penetrate wilderness untouched even by Indian paths, to bring change, at last, to an area where Spanish explorers established their first mainland colony. Cutting through the dark green masses of tangled vines, creepers and a myriad of forest growths, we shall see the Choco's shelters, taste their food, and feel the pulse of their silent primeval world before they retreat deeper into the wilds or opt to join the modern age.

Defying change, we find the copper-colored Choco's living today in the wildest, most primitive existence, very much as the Spaniards found them early in the 16th century. Scattered along the banks of the many rivers that crisscross the Darien, far from the comforts and problems of civilization, they seem to be in complete harmony with their surroundings. Proud, peaceful, honest, but suspicious of outsiders, they live a day-to-day existence in which there are few economic pressures. Ignoring government procedures and regulations, Choco's usually make their own laws.

They are the Indians most often maligned in stories about the Darien. Possibly because of their savage appearance, they have stirred the imagination of the

mythmakers. They are, however, more friendly than their Cuna cousins. Both men and women go about practically nude. The male has a muscular frame, an abundance of straight black hair and wears earrings. The rest of the attire of the Choco man consists of a small G-string and a generous coating of dark body paint made from the dye of a native berry from the genip tree. They also use a red paint made from achiote, the orange-red seed pod which is commonly used to give color and flavor to Panamanian cooking.

The Kitchen

The Choco's are semi-migratory and dwell independently in small one or two family groups. They build their shelters along the banks of rivers which serve as their highways and source of livelihood. The dwelling is a platform raised on posts several feet above the ground. Overhead is a roof of thatched palms, the joints tied with vines. There are no protecting walls. To reach the Choco house, one climbs up a ladder made by cutting notches into a pole or a log. At night, the family turns the steps to the underside of the log to bar dogs and other unwanted callers. At one end of the floor, which is made of flattened-out split cane, is the "kitchen." It consists of a cement or clay platform approximately a yard square. Three logs placed spoke fashion rest on the square and the cooking pot sits over a small fire burning at the hub.

A calabash tree provides the kitchen utensils. Scooped out small calabash are for drinking and eating or used as spoons, though ordinarily the Choco's use their fingers to eat from the common kettle. Another one with a hole cut into the top and a piece of oily twisted bark stuck in the hole serves as a lamp. And still another good-sized calabash with holes punched into it is a colander. Long seed pods serve as graters.

Practically Nude

Choco women wear only a simple knee-length sarong, their ink black hair falling on copper shoulders, their breasts, bare. Both men and women have a great fondness for adornments. They wear quantities of glass beads around their necks or draped over their shoulders, and on special occasions, flowers in their hair. For additional beautification, they paint the lower part of their faces

Down in the Darien

and their bodies, often making intricate designs with different colors of paint.

Scattered about the floor and hanging from the posts of the dwelling and those supporting the roof over the "kitchen" are baskets, earthen pots, bows and arrows, spears, knives, and other hand-made hunting and fishing and household items. The baskets are made of strips from the fronds of a palm tree which are light on one side and darker on the other. The Choco women weave them turning the strips and making an attractive twill pattern. Earthen pots are slowly being replaced by "pailas," the cast aluminum or iron pots found in Panamanian kitchens.

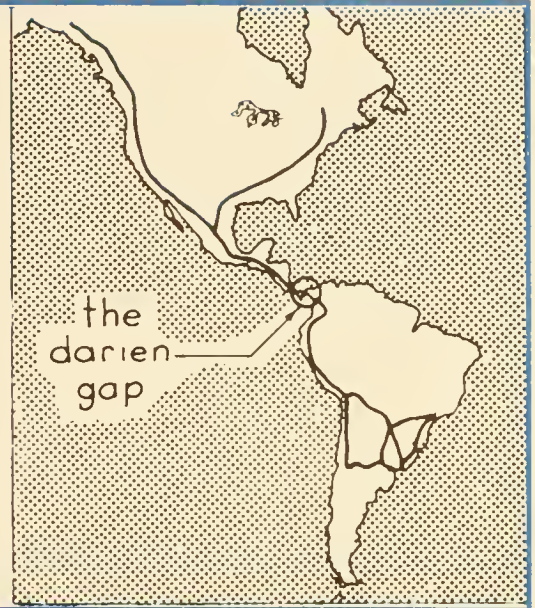
Sleep on Floor

The Chocoos sleep on the floor of the shelters. Their beds are the bark of trees which women have made soft by beating under water. There are no bed covers. A wooden block serves as a pillow. There is no protection from the excessive heat, the insects or frequent downpours, and the Darien is one of the world's rainiest regions. The shelters are easily replaced making it possible for the Chocoos to disappear deeper into the wilderness as the construction gangs near them. Navigating their long narrow dugout canoes, they will select another spot on the same river or another stream which will provide laundry and bathing facilities and also serve as the fish market and water supply.

Fish are caught with nets, spears or

The Pan-American Highway System

The circle encompasses Darien wilderness where the last 250-mile link in the Pan-American Highway system, to be constructed in the near future, will permit motorists of the 1980's to drive from Alaska to Argentina and open up what has been called "a treasure box of long hidden wealth." Fertile valleys will be revealed when the walls of the green jungle are broken by the road through this untamed stretch of land.



bows and arrows. If not consumed immediately, they are smoked and dried. The rivers also provide turtles and caiman, favorite foods of the Chocoos. They shoot the turtles with rifles or swim under water and catch them with their hands, tossing them ashore. A wooden wedge is driven between the head and shell to prevent it from getting away before it reaches the cooking pot. To save the turtle for a future meal, it is tied near the water.

The forests furnish wild game which provides the Chocoos protein food. Born hunters, they use bows and arrows to

hunt the jungle animals. The tapir, peccary, deer, armadillo, iguana, and monkey are favorite jungle fare.

Jungle trees provide balsa for making rafts and the bark of certain trees is used to make remedies for snake bite, skin ailments, malaria, etc. Other trees furnish fruit and dyes for painting their bodies. Palm fronds are used for the roofs over their shelters and the juice of the green coconuts provides "milk" for the Chocoos.

Chocoos cultivate mainly corn, rice, yucca, potatoes, yams, beans, and oteo and grow plantains, bananas, pineapples,

A Choco boy and his river.

Long, narrow dugout canoes transport food on the waterway which also provides drinking water, fish, and laundry and bathing facilities.





papayas, guavas, aguacates, and other fruits and nuts. Their diet is rich in vitamins and high in roughage.

Iguana Stew

A favorite dish is *Iguana Stew* and for this a gravid female is preferred and prepared in this manner:

Skin the iguana, removing the insides and saving the eggs, including the yellow ones and the heart and liver. Dismember the iguana by cutting it down the spine, dividing the halves into three pieces and the legs in two. Place the meat in a pot of heated coconut oil and brown it lightly. Drop in hot pepper and garlic to taste, and brown a little longer. In another pot, boil the eggs in their shells for half an hour with chili pepper. (Iguana eggs, boiled for 10 minutes and then sun dried have a cheese-like flavor and are relished by all Darienites.) Drain and add to the meat along with the diced liver, heart, and yellow eggs. Cook until the broth has all but disappeared. Serve with rice and beans.

Turtle Stew

Turtle is an excellent food source of the Chocoos and a typical meal may be portions of turtle fried in its own grease. However, a more savory dish is *Turtle Stew* prepared like this:

Clean and cut up the neck and legs of the turtle and steep in lemon juice, garlic, onion, green pepper, salt, and pepper for a few hours. Remove from the marinade and fry lightly. Then add the marinade and one cup coconut milk and cook until the meat is tender.

Turtle Egg Omelet

Turtle eggs are considered a delicacy in Panama and some say they are more nutritious than hen's eggs. They are eaten raw, cooked, mixed into pancakes and made into a butter-like spread. *Turtle Egg Omelet* is made much the same as the common hen egg variety, using oil for cooking.

The flesh of jungle animals and birds such as tapir, monkey, ibis, peccary, venison, and agouti are common fare in the Darien. The flesh of these is often smoked before cooking. Fresh meat, however, can be boiled, roasted, or barbecued. It also is salted and dried in the sun for several days. Monkey meat is usually smoked for 24 hours before cooking, but a Darien housewife may simply boil the meat in salted water until it is tender.

Monkey Stew

Monkey Stew is made by frying salted, smoked monkey lightly in hot oil, adding diced onions, then water and achiote. The stew is cooked until the meat is tender and sauce has thickened.

These meat dishes are often served with rice which has been cooked in coconut juice with the addition of onion and salt, or corn rolls (bollos) made by grinding and boiling green corn which is then formed into balls and wrapped in corn husks and boiled.

Chocao de Guineo

A banana-coconut dessert may round out the meal. *Chocao de Guineo* is made by cubing six bananas and boiling them in one cup of water, adding a piece of fresh ginger root and gradually adding one cup coconut milk and a little flour for thickening. It is stirred constantly until the desired thickness is achieved. More coconut milk is added when it is served. Plantains may be used instead of bananas. (Coconut milk is made by squeezing grated coconut to which boiling water has been added.)

Most of these recipes were collected by Panamanian anthropologist, Dra. Reina Torres de Araúz, and are included in the Darienita's Dietary compiled by James A. Duke of the Battelle Memorial Institute.



Queen in her kitchen, this Choco lass stirs the contents in the cooking pot which sits at the hub of three logs placed spoke-fashion at one corner of the dwelling. Note how she has embellished her beauty by painting the lower part of her face.



Chocoos are fond of adornments. In addition to painting an elaborate design on his face, this youth wears a chain around his neck and a flower in his hair.

At right: The collection of baskets was made by the boy's mother who used strips of palm fronds which are light on one side and darker on the other. By turning the strips as she weaves them she achieves an attractive twill pattern. Below: A primitive drill made by the Chocoes proves to be an interesting toy for Patrick, left, and Richard, sons of Mr. and Mrs. Thomas W. Grimison of La Boca. They are making holes in a calabash just as the Chocoes do to make a colander.



At right: High off the ground, the Choco shelter has a split cane floor, a thatched roof and no walls. A notched tree trunk serves as steps to the dwelling. At night the trunk is turned to the underside to keep out unwanted callers, dogs, cats, and wild animals. Below: This chic Choco belle enhances her beauty by painting flowers on her cheeks, butterfly wings above her lips and an intricate design on the lower part of her face.



The tepee-like structure on the right is the chicken coop. Chocoes' protein food is mainly from the jungle where they use bows and arrows to hunt game. They also keep chickens and pigs to supplement food from the jungle and the rivers.





Taboga



Architectural drawing showing some of the 55 modern cabins to be constructed on the adjacent island of El Morro as a part of the hotel complex that will include the Taboga Hotel.

CLOSELY LINKED TO THE colorful history of Panama, the picturesque island of Taboga has known the fury of marauding pirates, the intolerance of the Conquistadores, the boldness of the Gold Rush adventurers, and the glory of producing a saint. Through it all the island has remained unsullied.

An idyllic hilly island in Panama Bay, reminiscent of Capri, Taboga is only about 12 nautical miles, or an hour by launch, from Panama City. Its proximity and its white sand beaches have made it a prime candidate for further development by the Republic of Panama Tourist Bureau.

Plans are now afoot to build a hotel complex which would include the present Hotel Taboga and 55 modern cabins to be constructed on El Morro, a small adjacent island. It would be administered by the Hyatt International Hotel chain.

Balboa

Although Vasco Núñez de Balboa, the first Spaniard to set foot on the small dot of land, called it St. Peter's Island, the Indian name of the ruling cacique prevailed and nearly 450 years after its founding, the island still maintains the simplicity and flavor of bygone days.

Typical of the Spanish colonial settlements in the New World, the little town of Taboga sprang up around the church. Its narrow streets, now paved,



are barely wide enough for the passage of the few vehicles on the island.

The absence of traffic noises and exhaust fumes to pollute the clean sea breezes and the magnificent view of velvet sea and ships from far-off lands waiting to enter the Canal have made Taboga a favorite weekend retreat for Panama and Canal Zone residents and a year-round tourist attraction.

Quiet rural lanes fully skirted by a profusion of bougainvillea and hibiscus blooms in red, white, and pink, accentuated by the fragrance of roses and sweet jasmine, give Taboga the atmosphere of an eternal garden and the name "Island of Flowers."

Spanish Conquest

During the Spanish conquest, Taboga's inhabitants were virtually eliminated. When a decree by Charles V put an end to slavery, only about 700 slaves remained in Panama and its environs; the majority of these had been brought from Venezuela and Nicaragua. Among them were a handful of native slaves who became the settlers of Taboga.

A new village was founded in 1524 by Padre Hernando de Luque, dean of the Panama cathedral. He built a comfortable house on the island and remained there most of the time. It was Padre Luque who provided funds and blessed Francisco Pizarro and Diego de

No traffic noises disturb the quiet of Panama's historic "Island of Flowers"



El Morro played an important role in world shipping a little over 100 years ago when the Pacific Steamship Navigation Co. established its Panama headquarters there. Many forty-niners en route to California spent their "waiting" days in Taboga boarding houses.



Taking advantage of low tide, visitors walk over to the island of El Morro, where the U.S. Navy had a "mosquito boat" training base during World War II.



An ancient anchor frames a scene of narrow flower-bordered lanes curving past small white houses and Taboga's historic church, where the little town sprang up during the Colonial era.

Almagro before they set off from Taboga on their conquest of the flourishing Inca Empire.

In addition to his church duties, he raised fruits and vegetables on the fertile soil of Taboga, devoting much of his time to his pineapple plantations. Padre Luque's pineapples could well be the progenitors of the pineapple patches that pepper the island today.

Taboganos still recall the venerable priest by referring to a crystalline pool in the folds of Picacho del Vigía, the highest point on the island, as the "Bishop's Pool."

Santa Rosa de Lima

They remember, too, that Santa Rosa de Lima, the first saint of this hemisphere, was conceived in Taboga. According to Don Manuel Peñuela, for many years a municipal official in Taboga, the parents of the young girl who was later to be canonized, had lived in a charming house on the beach, now owned by Señora Abigail Pacheco de Diez.

Taboga's wholesome, healthy atmosphere has been recognized since colonial days when Panama City residents flocked to the island during epidemics or for a respite from the city heat. On several occasions, Taboga has been unofficially the summer capital of Panama, especially during the terms of President Belisario Porras.

The Panama Tourist Bureau operates a modern hotel on the island, which is the headquarters of numerous water

sports activities held during the year. Pleasure boats from Panama and yachts from all parts of the world may be seen anchored in front of the hotel throughout the year.

Hotel Chu, a two-story wooden structure built on the beach after the turn of the century, offers adequate but not luxurious comfort and spectacular vistas of Panama Bay.

Facing Hotel Taboga and linked to the island at low tide by a sandbar, is El Morro, a small rocky islet, where at the end of the 17th century the Spaniards established a fort to defend Taboga.

Three Cannons

During the wars of Independence in Latin America, it was the three cannons on El Morro, manned by 10 Spanish soldiers, that fought off the attacks of John Illingworth, in 1819. During a second attack, however, the invaders took Taboga, the inhabitants fleeing to the hills. Three of the invaders were killed and buried by the villagers, who marked their graves with wooden crosses. With the passing of the years, cast iron crosses embedded in a mortar base, replaced the wooden markers. To this day, Taboganos in the vicinity of "Las Tres Cruces" never fail to light a candle in memory of the three who dared to disturb the peace of their little island.

A little over 100 years ago, El Morro played an important role in world shipping. The Pacific Steamship Navigation Co., an English company with ships plying between England and the Pacific ports of South America, extended its route to include Panama. Aware of the abundance of supplies and potable water and general healthy conditions on the islet, the company purchased El Morro. They built workshops, a ship repair facility, supply stores and a coal-ing station and brought over hundreds of Irishmen to work in the supply base. It was at about this time, too, that the 49'ers discovered the healthy aspects of Taboga, many of them spending their "waiting" days in boarding houses there. A trace of Anglo-Saxon names can still be seen on sparkling white tombstones in the cemetery.

The Golden Age

Taboga was the seat of government for all the islands in the Gulf of Panama, including the Perlas Islands. Islanders prospered and it was the Golden Age of Taboga. Prosperity continued until several years later when the Pacific Steam transferred its shops to Callao, Peru.

Taboga Island had an important role

in the construction of the Canal. In 1883, during the French effort to construct a Panama Canal, they built a 25-bed sanatorium on Taboga for ailing and convalescing employees of the company. A few years later, in the grim battle with disease, the French built a 50-bed, \$400,000 sanatorium on the island.

This building was taken over by the United States in 1905 as a rest and recuperation center for Canal construction workers. It served this purpose until January 1915, when it became a vacation resort for employees and their families and was known as Hotel Aspinwall.

The Aspinwall was converted into an internment camp for German prisoners during World War I. After the war it was once again a hotel and recreation center and was the hub of Taboga's social life until 1945. The Aspinwall is gone but many an Isthmian still recalls this hotel on the beach at Taboga and the part it played in social activities of that bygone era.

Mosquito Boats

During World War II, the U.S. Navy had a "mosquito boat" training base on El Morro. The heroic record of these boats in the Pacific theater of war proved the efficiency of the officers and sailors on El Morro.

Today, a modern aid to aerial navigation, at the top of Picacho del Vigia, guides all aircraft to the Isthmus.

Numerous legends and romantic myths have been woven into the traditions and folklore of the island. Among these is the celebration of a water festival on July 16 in honor of the Virgin of El Carmen, the patron saint of Taboga. A number of boats, usually led by the most luxurious yacht of the Panama Yacht and Fishing Club carrying a statue of the Virgin, sail in a procession around the island. The procession includes pleasure boats of all types and sizes and pangas, the flat-bottom canoes used by the fishermen, all beautifully decorated for the occasion with the occupants singing praises to their patron saint.

According to Taboga lore, many years ago, a pirate ship attempted to attack the island and as the invaders neared the beach, an enormous army headed by a beautiful woman appeared, ready to meet the onset. The pirates were terrorized by the vision and fled back to their boat. One who did make it to the beach was even more mortified when he learned that there was no such army, much less a beautiful woman leading it. To this day, Taboganos are convinced that it was the Virgin of El Carmen who saved them.

A popular swimming hole is the "Bishop's Pool," named for Father Luque, the founder of Taboga.



Taboganos often light candles before the three crosses which mark the graves of invaders who attacked the island in the early 19th century.



Ruins of several churches and public buildings destroyed by Henry Morgan and his buccaneers in 1671 still stand in Old Panama.



A new city of Panama was built within massive walls 2 years after the destruction of Old Panama. Portions of the old wall may still be seen at Las Bovedas and along the shoreline of the city.

The Isthmus

Rich in Historical Events Due To Its Unique Geographical Position

FROM THE MOMENT of its discovery, the unique geographical position of Panama has given the Isthmus a history of real romance and charm—richer in historical events than most parts of the two continents it joins.

Since the days when Columbus was investigating every nook and corner of the Caribbean coast of Panama, looking for a way to India, the Isthmus has occupied the center of world interest. Footsteps of many men from many nations have trod its soil, always in search of a road across this narrow neck of land.

One of those to continue the search was Vasco Núñez de Balboa, who forced his way in 1513 through the jungles and mountains and reached a mountain top in Darien from where he discovered the Pacific Ocean. Three years later, Pedro Arias de Avila, who was the Spanish governor of the colony already established on the Caribbean side of the Isthmus, pushed his conquest to a native fishing village on the Pacific and founded the old city of Panama, where it remained for 154 years. Today, its ruins stand just east of the city.

Soon after its discovery, this narrow neck of land became the strategic point of the New World's commerce. For three centuries Panama was the treasure chest of the New World, the port of embarkation for the expeditions in search of gold and silver, and the port of return to Spain. It was here where the Spanish galleons arrived with merchandise for distribution. Ships laden with treasures for the King of Spain arrived from Peru, their rich cargoes transferred to the backs of mules, carried across the Isthmus, and loaded on ships bound for Spain.

Fourteen years after the founding of Panama City and Nombre de Dios, Spaniards of the colony explored the Chagres and the Rio Grande Rivers, studying the possibility of using the two rivers to make a canal.

The city of Panama ceased to be a mud-hut village and in a few years it became a colonial city with buildings, churches, and a cathedral. At the height of its importance, Panama was known as the richest and most luxurious city in the world. Prosperity continued until the city was destroyed by the romantic English buccaneer Sir Henry Morgan, in 1671.

In 1673, a new walled Panama was founded some 6 miles from the old site. For almost 200 years the old

forest stone-paved highway from the capital to Portobelo, on the Caribbean side, was the thoroughfare over which much of Spain's commerce passed.

Portobelo was a busy commercial city where traders came from Europe to trade with merchants from Peru, Chile, and Mexico. During the 40 days of its fair, Portobelo vibrated with humanity—slaves unloaded cargoes from the Spanish galleons in the port, while hundreds of mules, laden with native products and treasures collected during the year to send to Spain, passed through the narrow streets of the town. Gold and silver bars were piled up like firewood in the Royal Treasury Building ready to be used as a means of exchange between the trader from Spain and the buyers from America. Portobelo was the victim of buccaneers and English aggression several times.

It was not until the 18th century that the flood of Peruvian treasure began gradually to subside and the importance of Panama began to wane. Spain was emerging from her "Golden Age." Other countries were making forced efforts to participate in the New World trade.

The assaults and cruelties of the pirates and the threats of the British to establish themselves in America's vital points disrupted the Panama-Portobelo route. Traffic stoppage brought poverty to Portobelo. Commercial life in Panama became nil, but they maintained the churches, the convents and way of life. Thus, the colonial era and Spanish power in Panama came to an end.

Then came the revolutionary movement bringing a reawakening in the provinces that stirred up the struggle for independence. Politically, commercially, and geographically Panama occupied, at this time, an isolated position as a much-neglected part of the Viceroyalty of Nueva Granada, composed of the present countries of Colombia, Ecuador, Panama, and Venezuela. In 1821, the Panamanians declared independence from Spain, and united their lot with La Gran Colombia. By terms of the incorporation Panama expressly reserved the right to secede. And when Gran Colombia split into three parts in 1830, a separatist faction in Panama wanted independence, but after some hesitation Panama attached itself to New Granada.

Simon Bolivar had predicted greatness for the Isthmus of Panama because of its strategic position between two oceans. In 1821, hoping to draw the new republics closer together, he invited the provisional governments of Peru,



The Golden Altar of St. Joseph's Church was salvaged from the old city of Panama, which was destroyed by Henry Morgan in 1671, and was moved to the new city, built 2 years later. The altar, constructed of native mahogany and plated with gold, is an important tourist attraction.

The Search For A Way Across



In sharp contrast to the ruins of Old Panama is hustling modern Panama City with a skyline marked by many high rise apartment buildings.

Argentina, and Chile to an international congress to be held in Panama. However, unsettled conditions prevented the conference at that time. It wasn't until 1826 that the congress convened with representatives of Colombia, Peru, Central America, and Mexico and drafted a treaty of perpetual union. This first attempt to achieve unity among the nations of the Western Hemisphere is known as the Panama Congress.

Panama continued as a department of the United States of Colombia for a period of 82 years—from 1821 to November 1903. During these years many projects for a Panama Canal were placed before the Governments of La Gran Colombia and later Nueva Granada. The most interesting events in the history of Panama since her separation from Spain are those connected with efforts to build a canal from the Caribbean to the Pacific. Bolivar approved the idea in theory, as had others.

The search continued for a route across the Isthmus. At various times, England and France showed great interest in this waterway route. The Government of the United States did not begin to consider the matter until 1835. At this time, President Jackson was asked by the U.S. Senate to consider

negotiating with Nueva Granada and the Central American Republics in respect to such a canal.

Nothing came of this at the time. It wasn't until the western frontier of the United States became part of the United States, a result of the Mexican War, and the need for making the new possessions more accessible from the Eastern States, that the franchise to construct a railroad was secured from the Nueva Granada Government. A year later, in 1849, the gold rush of the "forty-niners" to California gave impetus to the land route and the Panama Railroad was born.

In those days there were no railroads uniting the east and west of the United States. Because of the Indians inhabiting the central part of the United States, it was dangerous and almost impossible to cross the country. The safest way was via the Isthmus of Panama. The sailboats and steamers carrying the adventurers to the Isthmian ports brought riches to Panama again. The Isthmian towns came alive again—hotels and transportation facilities were organized for the travelers. Life and splendor came to the Isthmus once more.

Panama was experiencing years of abundance similar to the happy times of the Portobelo fairs. The construction of the railroad brought development of Manzanillo Island where Colon stands today. Workers were brought in. First came the Irish workmen who soon were overcome by the climate. Malaria and yellow fever also put an end to the Chinese, who replaced the Irish. Jamaicans were brought in to complete the work on the construction of the railroad. The famous Panama Railroad was opened to traffic in 1855.

In the United States the great waterway project still hung fire. Between 1857 and 1863 an almost unbroken series of factional disturbances agitated New Granada. Several times the safety of the Panama Railroad gave new impetus to the plans for a canal.

In May, 1876, Colombia granted a concession for the construction of a canal by way of Panama to Lt. Lucien Napoleon Bonaparte Wyse, an officer in the French Army. This concession he sold to a group of French financiers, who persuaded the builder of the Suez, Count Ferdinand de Lesseps, to join them.

In 1881, the French organized La Compagnie Universelle du Canal Interocéanique. Disease, mismanagement,

extravagance, corruption, and technical incompetence have been ascribed as the causes of the French company's failure, and in 1889, after 8 years of work, the company went bankrupt. A new company was formed in 1894 but did no work.

The U.S. Government then entered into negotiations with Colombia to take over the project; but the treaty between the two governments, known as the Herran-Hay Treaty, was rejected by the Colombian Senate.

For Colombia, the canal was important but not decisive. For Panama it meant life or death. Colombia's rejection of the treaty meant the end of Panama's only means of economic salvation. Without a canal there would surely be an economic crisis. There were visions of the dark days of poverty and misery that existed before the construction of the Panama Railroad.

It was during these negotiations that Panama decided her destiny, and on the 3d of November, 1903, she declared her separation from Colombia and became a republic. Panama had made many attempts to free herself—53 uprisings in 57 years. On the 18th of November 1903, the Hay-Bunau Varilla Treaty was signed between Panama and the United States.

Five years elapsed between the French collapse and the beginning of the U.S. effort to build the canal. American engineers found much of the work done by the French usable, especially in Culebra Cut. But they changed the plan for the canal from sea-level to a lock-type canal.

Before starting the construction work, the Americans considered of utmost importance the improvement of sanitary conditions on the Isthmus. They brought immediate changes: muddy streets were paved and proper sewerage systems were installed. Within 2 years they eradicated yellow fever and reduced fatalities from other diseases. Sanitary precautions were established and enforced, making Panama one of the healthiest countries in the hemisphere.

Ten years later the Panama Canal was built. The dream and prophecy of many had been realized. Since then Panama has prospered and taken her place among the free nations of the world. Her position between the two mighty oceans shall always be the most important factor toward an even more brilliant future.

Flowering Trees

A spectacular display of color at the height of
the dry season brightens the Isthmian landscape

By Willie K. Friar

DID YOU know that water pistols grow on trees? They do in the tropics, and Canal Zone children learn at an early age where to get a supply. They are to be had, for the plucking, from the nearest African tulip tree, the unopened buds of which squirt forth a stream of water when squeezed or pierced.

Because of this peculiar characteristic, the tree is called the fountain tree. It is also known as the flame-of-the-forest because of its fiery red blossoms. The African tulip is just one of the many unusual flowering trees growing on the Isthmus.

Those who are acquainted with the ways of trees find the tropical flowering ones not only beautiful but their unusual characteristics and behavior fascinating. Their habits and fruits seem strangely different from those of trees found in the temperate zone.

They exhibit little of the rigid behavior of the northern trees and often bloom whenever they feel like it, with little regard to the calendar.

Blossoms Change Color

Some change the color of their petals between morning and evening while others switch colors from day to day, or the blossoms exhibit one color on the tree but change color completely when they fall to the ground. Some bloom all over the branches or up and down the trunks instead of among the leaves. Some have blossoms that hang upside down and others bloom only after dark.

Newcomers to the tropics often are amazed to discover that a plant that was a small shrub in their hometown in the United States is a giant tree in the tropics. Which brings up the question—where is the dividing line between a tree and a shrub?



The blossom of the African tulip tree seems to cast a glow around the face of Miss Elaine Almstead, Canal Zone College student, as she admires its fiery beauty. This ever-blooming tree is often called flame-of-the-forest because of the profusion of brilliant red blossoms.



Typical of trees introduced on the Isthmus from the West Indies is the breadfruit tree, outstanding for its warty, yellow-green fruit. Captain Bligh carried breadfruit trees from Tahiti to the West Indies in 1793 after an earlier effort failed due to the mutiny on the H.M.S. "Bounty." A large impressive specimen of the tree is located on Gorgas Rd. near Gorgas Hospital.

Environment is usually the determining factor in whether a certain plant will become tree-like or remain a shrub, and residents of a certain area generally call a plant a tree if it has that appearance when grown locally. In other words, a plant might be a shrub in Texas and a tree in Panama.

Early Explorers

The early explorers of Panama were so impressed by the strangely beautiful trees they found on the Isthmus that they went to great effort to collect specimens to take back to Europe. This was no easy task as the small trees had to be protected from the salt spray at sea and still be carried onto the deck daily for exposure to the sun. Few survived the trip and the change of climate but today there are tropical trees in herbariums in some European countries that were started in this way.

Most people know of Capt. Bligh's experiences told in "Mutiny on the Bounty" when he attempted to transport breadfruit trees from the South Pacific islands to the West Indies. The mutiny caused the failure of his first efforts but 6 years later he succeeded in transporting not only the breadfruit trees but other valuable trees aboard the *Providence* and introducing them in the West Indies where they are found today.

In this way, as well as by other means, many colorful trees seen on the Isthmus have been introduced from other countries. Some of the ornamental trees seen around Gorgas Hospital were brought here from the French West Indies by the Sisters of St. Vincent de Paul who were in charge of the hospital

at the time of the French effort to dig a Canal.

The sisters carefully tended their plants and small trees and protected them from the voracious leaf-cutting ants by placing ceramic rings filled with water around them. This saved the plants but unknowingly the sisters provided an excellent breeding place for the *Aedes aegypti* mosquito which later research revealed was the carrier of yellow fever.

There is, of course, no spring in the tropics as it is known in the temperate zone, only the change from the rainy to the dry season. But the array of blossoms, which suddenly appear on many trees, rivals the splendor of spring in the temperate zone.

Rose van Hardevelt, author of "Make the Dirt Fly," expressed the feelings of many others when she wrote about the first dry season she experienced after coming to the Canal Zone with her husband who was working on the construction of the Canal.

"Life, instead of being a succession of hours of rain and moments of frantically scraping off mold and trying to dry out, became liveable again.

"On the hillsides eastward now appeared here and there single, tall, beautifully shaped trees that had not been noticeable before in the mass of dripping greenness that covered every inch of space on the slopes. And then, so suddenly that it was startling, these trees burst into bright yellow blossoms. Like huge, golden bouquets, they lifted their beauty to the blue sky. Then another color appeared among the blossoming trees, a deep purple, and then a glowing crimson."

Memorable Experience

Transiting the Canal at this time of the year is a memorable experience with brilliant spots of color brightening the jungle on both sides of the waterway. Some trees begin to flower in the middle of the dry season and some just before the dry season ends, but almost all the trees bloom for only a brief period. There are actually some trees in bloom in the Canal Zone throughout the year but the spectacular exhibitions come during the dry season.

Someone has said that Washington's famed Japanese cherry trees would be completely overshadowed if some of the Isthmian flowering trees could be concentrated along one avenue or road. But the local trees are more or less "loners" and don't often grow close together.



Enjoying the fragrance of the sweet smelling flowers of the cannonball tree is Miss Judy Tompkins, Balboa High School student. The flowers, which grow right out of the bark, have no connection with the foliage at the top of the tree. They are followed by the novel cannonball-like fruit that dangles from the branches.

However, one beautiful vista during the dry season is a long-range view of a portion of Gatun Lake from the Trans-Isthmian Highway about 15 miles from Cristobal. In this area, the green of the jungle is studded with bright yellow splashes of color produced by the blossoms of the tree known locally as the guayacan; their color visible from planes overhead as well as from the road.

The tree, considered by many as the most outstandingly beautiful tree in the local forests, has large showy yellow blossoms which are born in terminal clusters when the tree is leafless. Unfortunately the blossoms remain on the trees only a few days before they shower down like yellow snowflakes. Several of these trees are located on Ancon Hill and across from the Governor's house.

Wassail Bowls

The wood of this beautiful tree is much valued commercially. It is olive-brown, very hard, takes a high polish and is considered one of the best woods of Panama. It makes beautiful salad or nut bowls and is believed to be the wood that was used by the English in making their traditional Christmas Wassail bowls more than 4 centuries ago.

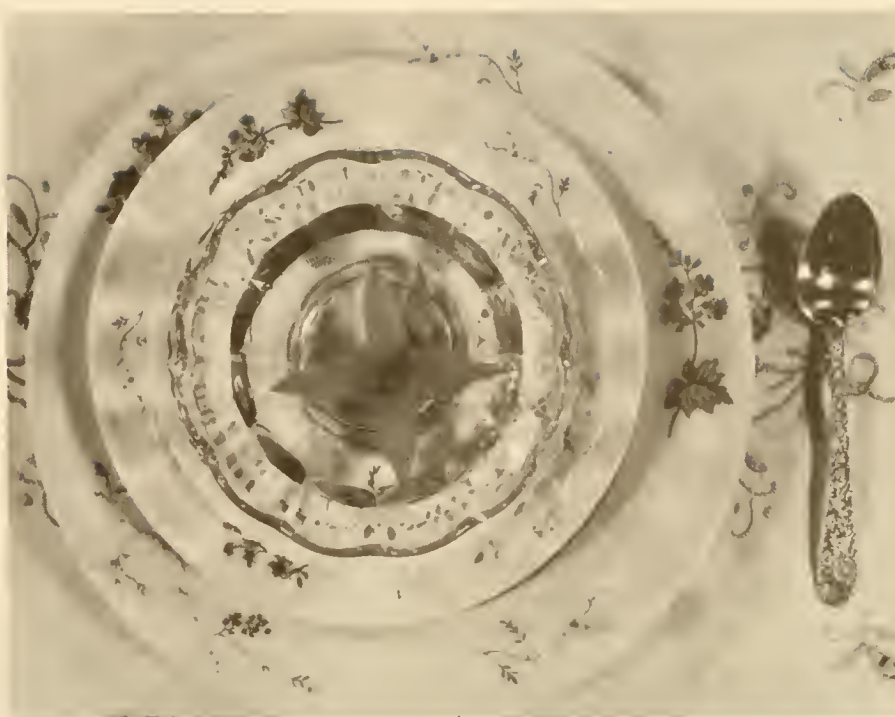
Some of the beams of the cathedral of Old Panama are said to have been made of this wood and have remained sound although exposed to weather for 250 years.

It also was once considered to have curative powers but is now little used as a medicine. Around 1700, it was thought to be the penicillin of that day. An Englishman in Jamaica at that time wrote of how the medicine was concocted and used. He said, "Take 12 ounces of shavings of wood and two of bark and five quarts water—boiling away one quarter part, strain." In some circles this remedy was considered dangerous unless taken 40 days in the dark, and with an exact diet of raisins and almonds with biscuits.

The roble (a form of oak), is a close relative of the guayacan and is almost as beautiful. Near the end of the dry season, these trees are so densely covered with nearly white to rose-colored flowers that they form giant bouquets. In their shades of color they resemble Japanese cherry trees. Several of these trees grow in Ancon and there is a large one in the Old Corral area there.

The Jacarandas

Other conspicuous flowering trees of the dry season are two species of



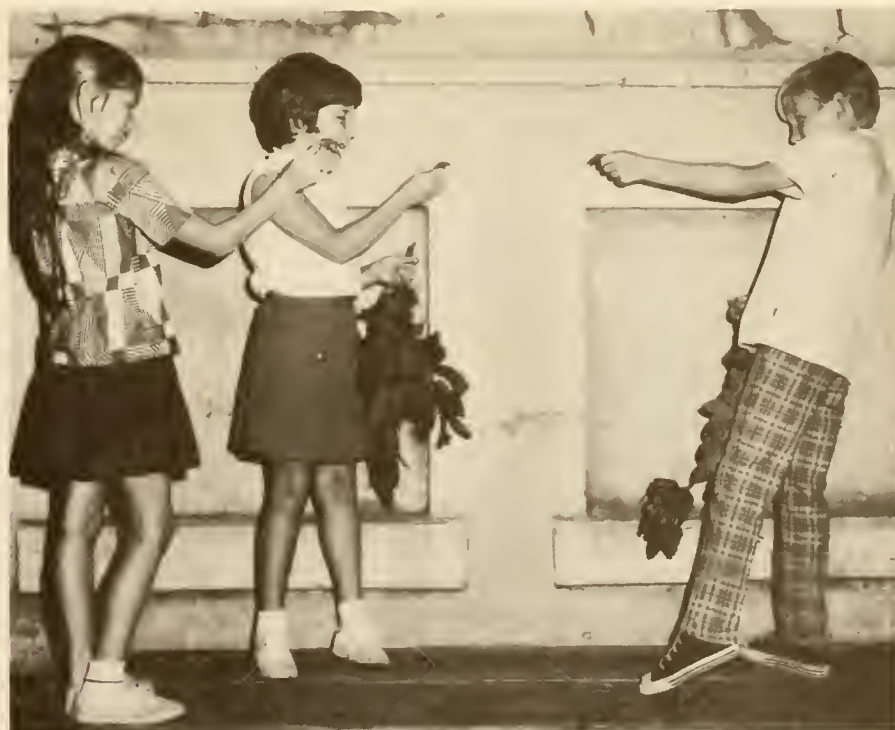
Floating in a finger bowl is the flower of the ilang-ilang, one of the most fragrant of the flowering tropical trees. Hostesses often place the flower in bowls and when a guest pinches the bud it gives forth a lovely scent. The ilang-ilang is also used in the making of perfume.

jacaranda, the various species of casias, royal poinciana, and the African tulip tree.

The jacarandas are handsome trees with large blue, violet or purple flowers

in showy clusters. A good specimen of jacaranda is growing in Balboa Heights at the intersection of Prospect Street and Heights Road.

The flowers of all species resemble



Staging an impromptu water battle using African tulip buds are Lyn Bouzard, left, Julie Gallin, and James Bouzard. The buds, when pressed or pierced, spurt forth a stream of water. When they open they form beautiful fiery red blossoms.



little bluebells and look like a blue plush carpet under the tree when they fall to the ground. Curative powers have been attributed to the jacaranda and some of the Indians of Panama have used the bark to treat skin diseases.

Both types of the jacaranda growing in the Canal Zone have purple blossoms. One type with flowers along its branches is usually found around local towns and the other, which has large terminal clusters of blossoms in a crown around the upper part of the tree, is found in the jungle. One of the former is located opposite the Governor's house at the corner of the road leading to Quarry Heights.

The royal poinciana or flame tree, a native of Madagascar, is extensively planted in the Canal Zone as an ornamental tree. It is large and spreading and is not very attractive except when it flowers; then it becomes a mass of bright red blossoms. An exceptionally outstanding poinciana grows near the First Baptist Church in Balboa Heights.

African Tulip Tree

The African tulip tree, a native of tropical Africa, is tall with a narrow crown and has large dark-red flowers which grow in clusters like the common lily-of-the-valley. It is seen all over the Isthmus but some particularly good specimens may be found along Barney Street in Balboa and near the Cristobal Administration Building.

Ilang-ilang is a flowering tree that disproves the often-heard statement that "in the tropics the flowers have no smell." Its fragrant perfume permeates the surrounding area and is usually recognized before the tree is seen. Not a conspicuous flowering tree, its droopy yellow blossoms with strap-shaped petals are strange in appearance. Isthmian hostesses sometimes place them in finger bowls and when the guests pinch the buds the fragrance fills the room. In Malaysia they are used to make a perfume base.

Another fragrant flowering tree seen about the Isthmus is the frangipani. Some say that only the bloom of the jasmine, with which it is often confused, can compete in sweetness of scent. Yet perfume-makers have never profitably extracted the frangipani scent

and the commercial frangipani perfume is still made by mixing oils to imitate the odor.

Frangipani Perfume

Interestingly, it appears that the tree was named for the perfume instead of the other way around. Frangipani perfume was created by a man of that name in Rome in the 12th century. It was a favorite scent of Italian royalty two centuries before the discovery of the western hemisphere. That early European explorers thought the smell of the frangipani flowers resembled that of the perfume is one explanation of the origin of the name of the tree. Another is that the word comes from the French, "frangipanier," which means coagulated milk. The tree has a milky-latex-like sticky juice which exudes from the bark when cut.

The large waxy flower of the frangipani is composed of five overlapping petals, which spread in star-fashion. There are both white and red frangipani in the Canal Zone which bloom the year-round but bear the greatest number of flowers just before the rainy season. In Hawaii, these blossoms are popular for making leis.

Toward the end of the dry season, in April, the cordia, another fragrant tree, which has white flowers, may be seen almost everywhere in Panama. Unfortunately the flowers soon turn brown and since they remain on the trees for several weeks present a rather dirty appearance.

Showy Flowers

At least 25 species of cassias are grown in the Canal Zone. Most have large showy flowers, but the most conspicuous are the golden shower along El Prado in Balboa; the pink and white shower, which has masses of pink and white blossoms along the branches; and the bronze shower with pendulant grape-like clusters of bronze flowers.

In addition to the red or flame poinciana, there is the yellow poinciana tree. It has a long flowering period which usually begins in April. An especially beautiful yellow poinciana grows near the Civil Affairs Building on Gaillard Highway.

A good look at a variety of flowering and other interesting trees may be had by taking a trip through the Balboa area. One such trail starts at the Goethals Memorial Monument at the foot of the Administration Building hill,

passes the Balboa Railroad Station, curves up the hill to the Administration Building, continues along Heights Road to the Governor's house and then continues left toward Gorgas Hospital to the Tivoli Guest House.

Along this route may be seen the following trees: cuipo, star apple, pink and white shower, golden shower, yellow cassia, screw pine, Chinese banyan, sausage tree, guayacan, pride of India, African tulip tree, calabash, date palm, ilang-ilang, bamboo palm, coconut palm, Panama hat plant, breadfruit tree, and royal poinciana. These trees are all plainly marked so that the signs may be read if one drives by slowly.

Summit Gardens

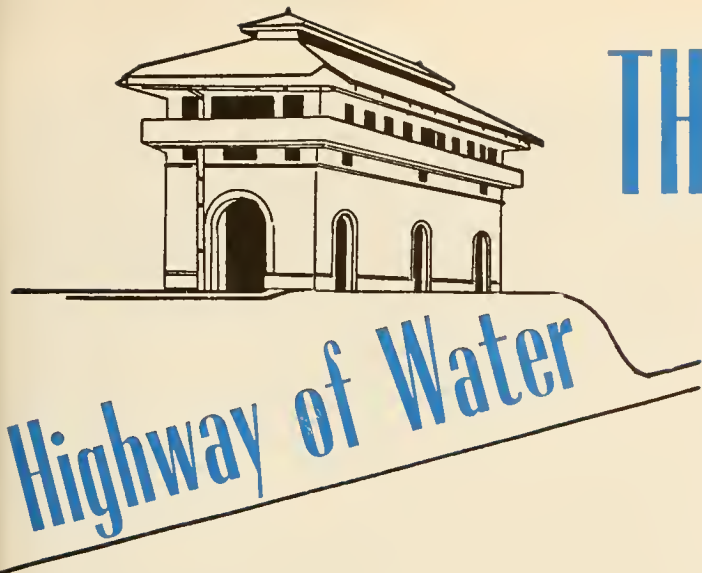
A great deal of the beauty of the local scene, not only during the dry season but the year around, is the result of plantings from Summit Gardens, which was established to introduce plants from different parts of the tropical world and disseminate them in this immediate area.

Plants have been received from such faraway places as Madagascar, the Philippines, Australia and New Zealand, Hawaii, China, and Burma, to name a few countries. Every Canal Zone town-site has been beautified by trees grown in the gardens.

Walking tours of the gardens are conducted during the dry season by Roy Sharp, supervisor of grounds for the Pacific area of the Canal Zone, affording tourists as well as local residents a good opportunity to see the many flowering trees close-up in all their glory.



The sudden shower of blossoms from a flowering tree provides "golden snowflakes" for Jeanne, 3½-year-old daughter of Mr. and Mrs. A. Dale Bishop, of Los Rios, who finds them as much fun as the real thing.



THE

PANAMA CANAL

There are currently an average of 40 transits of the Panama Canal daily and operations are on a 24-hour-a-day basis, every day of the year. A ship going from Atlantic to Pacific starts its trip at the Cristobal anchorage where the pilot boards the ship. The ship proceeds 4 miles south through a dredged sea level channel to Gatun Locks.

At Gatun the ship is raised 85 feet in three steps to the level of Gatun Lake. The locks are simply hydraulic elevators with numerous large valves to control the very large and fast flow of water by gravity. No pumps are used. Fresh water flows from the lake to the sea at the rate of 3 million gallons per minute, in and out of the locks, through concrete tunnels large enough to take a

freight train. Ships are assisted through the locks by large towing locomotives, a unique feature of the Panama Canal.

From Gatun Locks the ship travels 24 miles across Gatun Lake following generally the bed of the old Chagres River, the same route over which gold and silver flowed many years ago. During the entire transit the pilot has control of the movements of the ship, rather than being merely an adviser to the ship's master as he would be at Suez and all other waterways. This unique feature of the Panama Canal is due to the difficulties of navigating a ship through the waterway, particularly in approaching the locks and tying on to locomotives.

At Gamboa the ship passes the entrance of the Chagres River to Gatun Lake and starts the 8-mile run through Gaillard Cut and the Continental Divide.

At the end of the Cut the ship takes one 30-foot step down at Pedro Miguel Locks—sails across Miraflores Lake—takes two more steps down at Miraflores Locks to sea level—follows a dredged channel out past Balboa harbor—under the bridge—and then out into the Pacific Ocean.

Total transit time for the average ship from deep water to deep water is about 8 hours. Total time in Canal Zone waters for the average ship is about 15 hours.



Towing locomotives stand ready as the giant new container ship "Kowloon Bay," assisted by a tug, is inched into the lock chamber at Pedro Miguel. With a beam of almost 106 feet and 950 feet in length, she is one of the largest ships to use the Panama Canal.



Above: The giant container ship "Tokyo Bay" moves through Gaillard Cut. At left: The bridge that spans the Panama Canal at Balboa in silhouette at sunset. Below left: The Administration Building, built in 1914 at Balboa Heights, the headquarters of the Panama Canal. Below right: Two Italian cruise ships at anchor in Gatun Lake, awaiting transit of the Canal. At right: Miraflores Locks.





