SMITHSONIAN MISCELLANEOUS COLLECTIONS
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PRELIMINARY REPORT ON THE SMITHSONIAN INSTITUTION–HARVARD UNIVERSITY ARCHEOLOGICAL EXPEDITION TO NORTHWESTERN HONDURAS, 1936

(With 16 Plates)

BY
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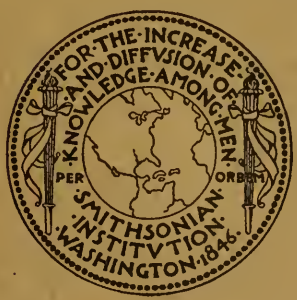

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CITY OF WASHINGTON
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JANUARY 17, 1938

PROCESSIONAL FIGURES ON A YOJOA POLYCHROME VASE,
MAYOID TYPE, SITE 2, LA CEIBA
(From a painting by E. G. Cassedy.)

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INTRODUCTION

The present paper presents in tentative and outline form certain major results of the Smithsonian Institution-Harvard University Archeological Expedition to northwestern Honduras in 1936. The expedition personnel included the senior author as leader and representative of the Bureau of American Ethnology, Smithsonian Institution, and the two other authors as representatives of the Peabody Museum of Harvard University. Mrs. Strong and Mrs. Kidder accompanied the expedition in the field and performed invaluable services in cataloging and caring for the collections. The purpose of the expedition was twofold: to extend the work carried on by the Smithsonian Institution in northeastern Honduras in 1933, and to follow up earlier work on the Ulua River so successfully inaugurated, under the auspices of the Peabody Museum, by George Byron Gordon and by Mrs. Dorothy Hughes Popenoe. The discoveries of Mrs. Popenoe at Playa de los Muertos in 1928 and 1929 opened new vistas in Honduras archeology, and her untimely death was a sad blow to science and to all who were fortunate enough to know her. In a sense our work was merely a continuation of that which she had so ably begun. The original suggestion for the present expedition came from Dr. Wilson Popenoe, and it was due to him that the successful cooperative effort was launched and completed.

The expedition received cordial support from the government of the Republic of Honduras, and our warmest thanks are extended to the

officials in Tegucigalpa and elsewhere who not only furthered the cause of science but put us deeply in their debt for many personal courtesies. Similarly, the officials of the United Fruit Company, both in the United States and in Honduras, furnished very material aid in ways too numerous to mention. Without this generous assistance our results would have been tremendously curtailed. Considerations of space prevent listing the many people who aided us in our work, but we cannot forbear mentioning Mr. Walter S. Turnbull, and Mr. Reginald Hamer. To them and to many other persons in Honduras we are deeply grateful. Later, in the final report, it will be possible to acknowledge more adequately our appreciation of the many courtesies, both official and personal, which we received on every hand.

Our choice of this particular area for excavation was based on numerous geographic, historic, ethnographic, and archeological considerations. For this reason we have devoted considerable space to these important factors. Viewed against this background, it is hoped that a condensed account of our excavations may have value. In due course a final report will be prepared by the senior author for publication by the Peabody Museum. As this may not appear for some time, it seems advisable to make our major results available without undue delay. Most of this important area still awaits adequate excavation, and it is our hope that these notes and sketch maps may be of value to future scientific explorers and excavators.

BRIEF GEOGRAPHIC SETTING

The general area covered by this report includes the eastern portion of the Department of Cortes, the western border of the Department of Yoro, and certain places on the eastern border of the Department of Santa Barbara, all within the Republic of Honduras.[1]

From the archeological standpoint, however, modern political boundaries are of minor importance compared to factors of terrain and drainage, which conditioned aboriginal human occupation no less than they do that of the present inhabitants. Of primary importance

[1] See map, fig. 1. The best general maps of Honduras at present are the "Carta General de la Republica de Honduras, America Central, of the Pan-American Institute of Geography and History, 1933", and the "Mapa General de la Republica de Honduras, Levantado por el Prof. Jesus Aguilar Paz, 1933." These maps are far superior to any of their predecessors. Many contradictions still exist, however, owing to the present inadequacy of cartographic exploration in much of Honduras. The present map (fig. 1) is primarily based on that of Dr. Paz.

is the fact that at this point occurs one of the easiest passages across the Central American Isthmus from Tehauntepec to Panama.[2]

From the mouth of the Ulua River, where it enters the Gulf of Honduras, a series of elevated valleys extend up the Rio Blanco to Lake Yojoa, over the plateau of Siguatepeque, across the Plains of Comayagua, and down the valley of the Goascaran River into the Gulf of Fonseca and the Pacific. It can hardly be coincidental that it is at this point that the higher aboriginal cultures of the Pacific Highland extend north to the Caribbean Sea, in marked contrast to the lower cultures of the remainder of the Atlantic Lowland region in Honduras. The present archeological reconnaissance covers the northern half of this natural transition area between the Pacific Highland and the Atlantic Lowland regions.

If we include the valley of the Chamelecon River, which at no very distant time emptied into the Gulf of Honduras through the Ulua River, this entire area from Lake Yojoa north may be termed the Ulua drainage. The lower portions of the Ulua and Chamelecon Rivers flow through the Plain of Sula, a rich alluvial valley, down to their respective mouths in the great mangrove swamps extending along the Gulf of Honduras from Puerto Cortez almost to Tela. Because of these swamps and their shallow, silted-up channels, neither river offers much inducement to modern navigation, whereas such impediments were probably of small import to the numerous trading canoes of pre-Conquest times. Above the mangrove swamps, which extend some 20 kilometers upstream, is the rich valley floor that today is covered with banana plantations. Formerly the valley supported a rich tropical flora, described by Gordon (1898) and others, but at present, except for isolated remnants in swamps and low areas, the great mahogany, ceiba, and other trees, have been replaced by the ubiquitous banana. To the northwest the Ulua valley is hemmed in by the great Mountains of Omoa, which reach a height of 7,000 to 8,000 feet. To the east occur the Mountains of Mico Quemado and Tiburon. Between these two ranges the Ulua-Chamelecon valley reaches a breadth of some 45 kilometers, terminating about 75 kilometers in a direct southwest line from the mouth of the Ulua at Potrerillos, where the

[2] This has been pointed out time and again in the voluminous literature referring to the much-talked-of but never completed transoceanic railroad across Honduras. See Squier, 1858 and 1870, and Wells, 1857. Although perhaps unduly optimistic on some points, Squier's various reports remain the best general geographic descriptions of Honduras.

Wells gives a detailed and delightful picture of Honduran life in the middle of the last century. So far as the remote interior is concerned, much of his description holds good today.

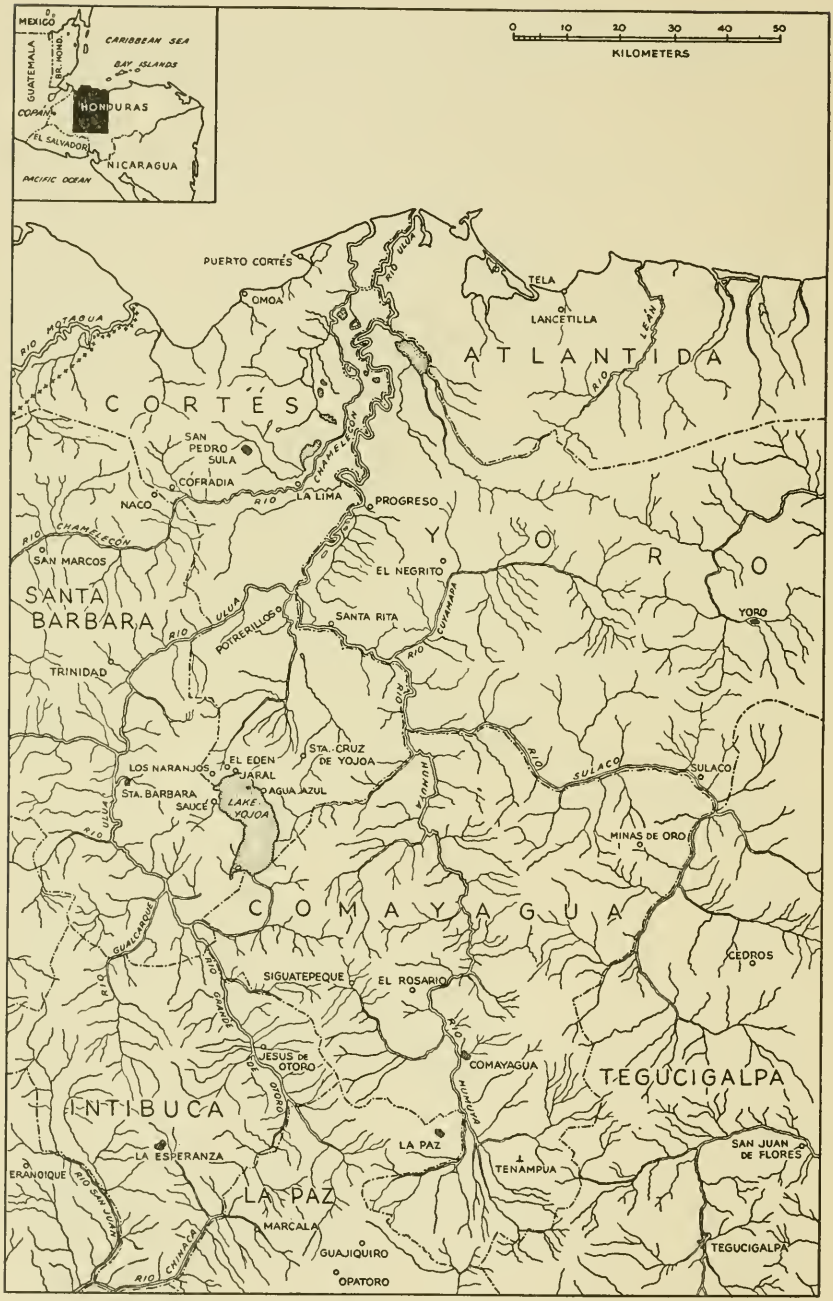

FIG. 1.—Map of northwestern Honduras (based on the General Map of the Republic of Honduras, by Prof. Jesus Aguilar Paz, 1933).

bordering mountains converge and the Ulua splits up into its three main branches (maps, figs. 1, 5). These are, from north to south, the Comayagua, the Rio Blanco, and the Ulua proper. The Chamelecon, after running parallel to the Ulua for some 50 kilometers above its mouth, turns north into mountains, where, as a rapid mountain stream, it extends almost as far southwest as Copan. Similarly, the three branches which form the Ulua are rapid, clear streams, in marked contrast to the slow moving, muddy lower Ulua and Chamelecon.

Owing to its configuration and the mountainous character of its terrain, Honduras has a wide variety of climates and seasons. In general, however, the dry season in the region we are considering begins in December or January and extends until June or early July. The temperature, which is pleasantly low in the early part of the dry season, increases as the wet season approaches. The rainy season is cooler, but more unpleasant, owing to rain, wind, and great humidity. Moisture brought by the northeast trade winds is deposited when they hit the high mountains bordering the Ulua valley. Thus, despite their relatively short courses, the Ulua-Chamelecon tributaries at times carry a tremendous volume of water. These rivers rise to their greatest heights about October and flood the valleys. A smaller rise occurs in the late Spring. As the rivers spread over the lower valleys, they deposit the sediment brought down from the mountains, and in this way the valley has been aggraded or built up. As proved by human occupation levels buried *in situ* 6 meters or more deep along the present channels, this building-up process has been relatively rapid and continuous.[3]

As the present rivers shift their channels across the valley floor, they thus expose in their steep banks the various human occupation strata of past centuries, which elsewhere in the valley are inaccessible, because of depth and lack of surface indication. The majority of the sites investigated along the Ulua by the present expedition were of this type.

Whereas the lower Ulua valley was formerly covered with a luxuriant rain forest, the sites which we worked on the upper Chamelecon

[3] Yde, 1936, p. 39, in our opinion, exaggerates the difficulties due to depth of deposit facing the archeologist in this region. Nevertheless, there is no doubt that the earliest human remains in the lower Ulua valley may be buried at inaccessible depths. However, as the present report demonstrates, it is possible to obtain stratification. Gordon, 1898, shows the manner in which the rivers cut and shift their channels as well as the dangers of re-deposition which must be borne in mind by the archeologist. Neither Mrs. Popenoe nor the present writers encountered cultural remains at the extreme depths mentioned by Gordon and Yde.

in the vicinity of Naco (map, fig. 2) are located on clear, rapid streams. These streams are bordered by narrow strips of tropical forest, but back from these are steep hills or elevated rocky plains covered with pines and oaks. There is no reason to believe that the environment here was different in aboriginal times. It is a region admirably adapted to maize. Abundant food supplies possessed by the numerous Indian pueblos, as well as the occurrence of gold in the surrounding mountains, early attracted the Spaniards to these mountain valleys. The climate appears to be much more healthful than that of the lower river valleys.

The northern end of Lake Yojoa, where other excavations were carried on, offers a similar environment. This marks our most southerly working point as well as the limit of the Ulua drainage in this direction, since Lake Yojoa in part drains through an underground channel into the Rio Blanco. To the south, it is said to drain into the Santa Barbara River by means of the Jaitique River and by subterranean channels, principally the Rio Sacapa and the Rio Salala.[4] We did not investigate the southern end of the lake.

Lake Yojoa is located in a small mountain valley or *bolson* at an altitude of some 2,050 feet. The auto road from the north coast to Tegucigalpa utilizes the lake as a water connection by means of automobile ferries. To reach Jaral, the little town on the north shore, one leaves the low banana country at Potrerillos and climbs through rocky hills covered with oak, pine, and scrub, following the Rio Blanco River, which is crossed only once at the little town of that name. Just before the road reaches the lake, the grade increases sharply and then drops down onto the small triangular plain bordering the lake (map, fig. 20). This bush-covered plain is bounded on the east by low pine-covered hills, and on the north by high (5,000-6,000 feet) volcanic mountains. We suspect that this plain originally supported a heavy rain forest, but both the aboriginal and modern inhabitants have long practised milpa-type farming here, and today there exist few remnants of the original forest. With the exception of open, rolling, pine-covered hills on the northeast shore near Agua Azul, the remainder of the lake is bordered by steep slopes covered with rain forest. At the southern extremity of the lake, there is a considerable belt of low, swampy land, most of which is overflowed when the lake is full. Beyond the water-

[4] Published reports and maps of Lake Yojoa are utterly inadequate. Squier, 1858, pp. 96-104, and 1860, pp. 58-63, is still the authority. The lake has been studied from time to time by Honduran and American engineers, but we know of no up-to-date maps or reports. Amory Edwards, and Squier, 1860, describe 10 outlets.

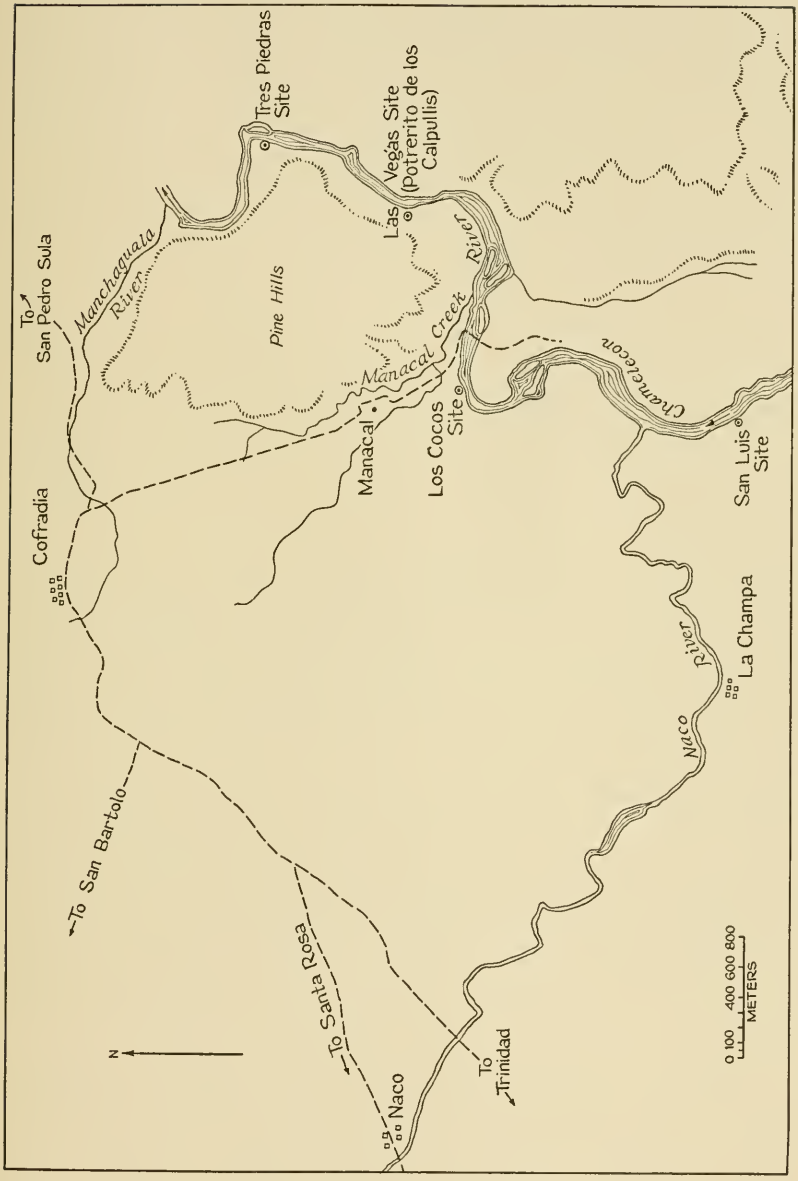

FIG. 2.—Map of the region around Naco (based on a map of the Compañia Agricola De Ulua, 1935).

shed to the south in the vicinity of Taulebé and San José, there are fertile plains and valleys. These are separated from the Comayagua valley by the high plateau of Siguatepeque.

In general, therefore, it can be said that the sites investigated by us in the Ulua drainage occupy two main environmental regions: First, those on the lower Comayagua and Ulua Rivers, located in the rain forests of the broad, alluvial river valleys, and second, mountain valleys, as at Naco and at Lake Yojoa, where the elevation was considerably greater, the rain forest limited to the borders of stream or lake, and the more open pine and oak association close at hand.

ETHNIC AND LINGUISTIC BACKGROUND

At the present time there are no obvious, aboriginal remnants of population in the part of Honduras considered in this report. It is true that the present population of the region is in considerable part made up of assimilated Indian groups, but the language is Spanish and the culture Latin American. Isolated groups of Jicaque Indians are reported as still living in the more remote parts of the Department of Yoro.[5]

It is possible that Lenca-speaking Indians may still be found in our region, and groups of Chorti Maya occur in the departments to the south and west, but, as yet, ethnographic and linguistic research in Honduras has received little attention. If we desire to connect the archeological remains with historic Indian groups, it is therefore necessary to turn back the pages of history and consider the region at the time of the Spanish Conquest.

Early sources on northwestern Honduras are fairly numerous, including Cortez, Bernal Diaz, Palacio, Las Casas, Torquemada, Marroquin, Montejo, Palaez, Pedraza, Espino, and the historians Herrera, Oviedo, and Gomara, but, with the exception of the first three, the grains of ethnography to be gleaned from the works of these writers seem rather scant. In a later paper other sources will be considered, but for the present we shall confine ourselves to the most important primary sources and more recent general studies.

As was the case in regard to the geography of Honduras, one must still consult E. G. Squier's "States of Central America", 1858, regarding the ethnography of Honduras. Similarly, H. H. Bancroft's

[5] Described by Habel, 1880, p. 17. In June 1933 the senior author was told by Mr. Acley, then American Consul at Tegucigalpa, of a very primitive group of Jicaque Indians he had visited that year near the town of Morale, in the Sierra de la Flor of the Department of Yoro, near the Olancho line. From photographs, they appeared very similar to those described by Habel.

"Native Races" (1882) is a treasure house of ethnographic source material, and the same author's "History of Central America" (1883) not only indicates the sources but also the major trends of native and European contact in the period of conquest. More recently Cyrus Thomas and John R. Swanton (1911) have presented in brief form the salient facts regarding the distribution of Indian languages in Honduras as part of their study of the languages of Mexico and Central America. Preeminent in this field, however, is the voluminous and detailed work of Walter Lehmann, who in a preliminary report in 1910, and in "Zentral Amerika" (1920), his given us a wealth of data based on close examination of the sources as well as personal linguistic work in the field. In addition to an intensive study of original sources and present-day Indian dialects, Lehmann has also included many sweeping theoretical generalizations. The latter, however, concern us less in the present study than do the specific references to linguistic and cultural distributions in Honduras at the time of the Conquest.

In general, the linguistic maps of Thomas and Swanton (1910), and Lehmann (1920) agree as regards the distribution of native languages in the Ulua drainage. Both place Chol, Chorti, and other Maya-speaking groups to the west of the Ulua River proper. Following Lehmann, we find that the Lenca occupied a large area around Lake Yojoa, extending north almost to the junction of the Comayagua and the Ulua. From here to the coast the valley of the Ulua and Chamelecon Rivers was Jicaque territory. To the west, Lenca and Jicaque territory bordered on that of the Chorti and Chol Maya, Copan being one center of Chorti occupation. The Lenca and Jicaque demesnes extended east to that of the Paya who with the Sumu, occupied the northeastern corner of Honduras.[6]

To the south, peoples of Lenca speech extended to the Pacific coast. To the west they were bordered by the Pipil of Salvador along the Lempa River, and to the east by various Chiapanecan and Matagalpan groups (see linguistic maps, Thomas and Swanton, 1911, and Lehmann, 1920).

Thus it appears that all of the territory investigated by the present expedition was occupied by Jicaque and Lenca-speaking peoples at the time of the Conquest—with one very important exception. This was the occurrence in the same region of various Nahuatl-speaking pueblos along what appear to have been trade routes extending from southern Mexico and from the Pipil (Nahuatl) territory in Salvador. Leh-

[6] Linguistic and tribal distributions in Honduras have already been discussed in some detail; see Strong, 1935, pp. 7-19 and 140-172.

mann indicates one such line of late Nahuatl influence and settlement which crossed the Chamelecon River in the vicinity of Naco and extended east to the Nahuatl pueblos mentioned by Cortez, located a short distance south of Trujillo (Lehmann, 1920, vol. 2, p. 629 and map). Both Cortez and Bernal Diaz in their accounts of the traverse from Mexico to Honduras indicate the importance and vogue of these trade routes and mention the many pueblos engaged in trade which they visited (Bernal Diaz, 1916). Recent Nahuatl settlements would be thus expectable in the upper Chamelecon valley near Naco and probably elsewhere in the Ulua valley proper. These Nahuatl influences from southern Mexico were apparently quite recent, but the Pipil occupation of Salvador was much older. This is clearly indicated by Palacio (1860, pp. 21, 31, and 65), who points out the acquisition of the Pipil tongue by many neighboring groups originally of different linguistic affiliation. Moreover, Pipil cultural influences were obviously very active in southwestern Honduras at the time of which Palacio writes (i. e., 1576).

The name of the Ulua River was apparently derived from the Ulba language, which Palacio ascribes to Honduras (1860, p. 21). Both Squier (Palacio, 1860, p. 114) and Lehmann (1910, p. 747; 1920, vol. 2, p. 624) concur in this identification. The extension of the term Ulba, Ulua, or Ulvan to the Sumu is explained by Lehmann on the grounds that the Sumu, Jicaque and Matagalpan languages (including the Cacaopera and Lislique) are all basically related. This seems quite probable but has not yet been satisfactorily demonstrated. Since the Jicaque lived along the Ulua river, it is most probable that Palacio referred to them as the Ulba. Both Squier (Palacio, 1860, p. 114) and Lehmann (1920, p. 624) regard Palacio's designation "Chontal" as a general term for non-Pipil-speaking peoples. According to Lehmann, the term would include the Lenca with the Jicaque. Specifically, Palacio seems to refer to the Lenca when he speaks of the Taulepa. This is the old name for Lake Yojoa (Taulebé, according to Squier, 1860). In the Lenca language, Taulepa means "House of the Jaguars" (Lehmann, 1910, p. 747; 1920, vol. 2, p. 624). The jaguar was of special importance in Lenca mythology. Lehmann is convinced that the region around Lake Yojoa and the entire central portion of Honduras was occupied by the Lenca (the Taulepa of Palacio), and that the valley of the lower Ulua and the adjacent Department of Yoro was primarily occupied by Jicaque groups (the Ulba of Palacio). During the seventeenth century, the names Lenca and Jicaque were often confused, but, as indicated by the work of Thomas and Swanton, the general regions assigned to these groups by Lehmann seem accurate.

It is therefore apparent that our archeological investigations were made in a contact area between advanced Mayan and Nahuatl peoples to the west, and Lenca, Jicaque, and other less advanced groups to the east. As Lehmann points out (1920, vol. 2, p. 625, and map), Maya influence, as indicated primarily by archeological objects, extended well into Lenca territory, including all the region west of a line drawn from the junction of the Ulua and Comayagua Rivers southeast to the Gulf of Fonseca. Similar influences were also present in the lower Ulua valley and in Salvador. Moreover, Palacio (1860) clearly indicates that cultural influences from the Nahuatl Pipil of Salvador extended east well into Lenca territory during early historic times. Whether Lehmann's assumption that the language of the Lenca is related, on the one hand, with the Jicaque and the Paya, and on the other, with the Cacaopera, Matagalpa, Sumu, Ulua, Miskito, Rama-Guatuso, etc. (1920, vol. 2, p. 637), be accepted or not, there is little doubt that the majority of these languages are affiliated with major linguistic stocks to the south. There is at least a strong probability that the majority of these languages are in some degree related to the Chibchan linguistic stock centering in northern South America. As has been pointed out elsewhere (Strong, 1935, pp. 170-172), the scant ethnological information on certain of these groups likewise points to a southern derivation. On the other hand, Chol and Chorti Maya and Nahautl (Pipil and Aztecan) linguistic connections are clearly with the north. Thus the Ulua-Yojoa region comprised an important buffer area between two sets of cultural traditions and linguistic stocks, the one derived from Mexico and northern Central America, the other from southern Central America and, eventually, from South America. A very complex archeological situation is therefore expectable. It is, however, a situation that, when clearly understood, is certain to throw much new light on the ultimate derivation and development of the higher civilizations of the New World.

Since the historic occupants of our particular region were the Lenca and Jicaque Indians, we are particularly concerned with whatever ethnological information has survived concerning their cultural status at the time of the Conquest. Regarding the Jicaque, little is on record but for the Lenca, or at least their near neighbors and cultural kin, we have the brief but excellent account of Palacio. Speaking of the plain of Jiboa in the province of San Miguel, Salvador, he says that here the Indians begin to speak a new language, called the Chontal. He states that they "are a very rude people, but had anciently a great reputation for valor among their neighbors." His description of the customs observed prior to 1576 at Micla, (Mita),

apparently a cultural center representing a blending of Pipil and Lenca ceremonies and customs, is so important that we quote it in full, following Squier's translation (Palacio, 1860, pp. 65-89).

Three leagues distant, is the village of Micla, which anciently the Pipil Indians of this district held in great veneration; it was here they came to make their offerings and sacrifices, as did also the Chontals, and other neighboring Indians of different languages. Their modes of sacrificing differed in some respects from those of other parts. They had cues or temples, and teupas or priests of high authority, of which there are still many signs and traces.

Besides their cazique or secular lord, they had a kind of pope, called Tecti, who dressed in a long blue robe, and wore on his head a diadem, or sometimes a mitre embroidered with many colors, at the crown of which rose a cluster of very beautiful feathers, taken from a bird, called in this country, Quetzal. This pontiff carried in his hand a staff, which resembled the crook of a bishop, and he was obeyed in all spiritual things. After him, next in sacerdotal authority, was the tehu a matlini, who was the ablest diviner and the man best versed in their ancient books and in their arts. He it was who made auguries and foretold future events. After him were four priests called teupixquis, who went dressed in long robes, falling to their feet, each of different color, black, red, green and yellow. These were the counsellers of the pontiff, and directed all the superstitous ceremonies and follies of their religion. Their was also a kind of mayordomo, who had charge of the sacred jewels and the instruments of sacrifice. He also opened the breasts of the victims of sacrifice, and tore out their hearts, and performed such other personal services as were requisite. Besides all these there were other functionaries, who played on the drums, trumpets and other instruments used in convoking the people to the sacrifices.

ELECTION OF THE POPE AND PRIESTS

When the chief priest died, he was buried in his own house, seated in a painted chair, and all the people mourned for him for fifteen days, with loud cries and lamentations. They also fasted during this period; but when this was over, the cazique and the wife, man or diviner selected a new pontiff by lot. It was requisite that he should be one of the four priests above mentioned. When the choice was made, they had great feasts and dances, and he who was chosen drew blood from his tongue and private parts, and offered it in sacrifice to the idols. He also named his successor in the priesthood, who was required to be a son of the deceased pontiff, if he had left one, if not, the son of some other priest. He filled also the other offices which at any time became vacant in the teupas, or temples. They adored the rising sun, and had two idols, one representing a man, whom they called Quetzalcoatl, and the other a woman named Itzqueye. All their sacrifices were made to them, and they had a calendar, with days specially set apart for each one, and on these the sacrifices were made.

SACRIFICES

Each year they had two principal and very solemn sacrifices; one at the commencement of summer, and the other at the beginning of winter. These were made in the interior of the sacred place or temple, and were of boys between the ages of six and twelve years, bastards, born among themselves.

MODE OF THESE SACRIFICES

They sounded their trumpets and drums for one day and night before the sacrifice, and when the people were assembled, the four priests came out from the temple, with four small braziers in which they burnt copal and caoutchouc; and the four together, turning in the direction of the rising sun, bent their knees to it, offering incense, and reciting words of invocation. After this they separated, and did the same in the direction of the four cardinal points, south, east, north and west, preaching and explaining their rites and ceremonies. When the sermon was finished, they retired within four houses or chapels which were built at the four corners of the temple, and there rested for a little while. They next went to the house of the high priest, which was close to the temple, and took thence the boy who was to be sacrificed, and conducted him four times around the court of the temple, dancing and singing. When the ceremony was finished, the high priest came out of his house, with the second priest and mayordomo, and ascended the steps of the temple, accompanied by the cazique and principal Indians, who, however, stopped at the door of the sanctuary. The four priests next seized the victim by his extremities, and the mayordomo coming out, with little bells on his wrists and ankles, opened the left breast of the boy, tore out his heart and handed it to the high priest, who put it into a little embroidered purse, which he closed. The priests received the blood of the victim in four jicaras, which are vessels made from the shell of a certain kind of fruit (the calabash), and, descending one after another into the court, sprinkled it, with their right hands, in the direction of the cardinal points. If any blood remained over, they returned it to the high priest, who put it back, with the purse containing the heart, into the body of the victim, which was interred in the temple itself. This was the kind of sacrifice made at the opening of the two seasons of the year.

The high priest, his second, and the four priests were accustomed to meet to ascertain, by sorcery and enchantment, if they should make war, or if their foes were coming to attack them; and if it appeared that such an event was to take place, they called together the cazique and war chief, and advised them of the approach of their enemies, and whether they should go to meet them. The cazique then assembled the soldiers, and all went out to battle. If he was victorious, he despatched a messenger to the high priest, advising him of the date of the occurrence, and on this information the diviner ascertained to which of the gods sacrifice was to be made. If to Quetzalcoatl, the ceremonies lasted fifteen days; if to Itzqueye, five days, and on each day they sacrificed a prisoner. These sacrifices were made as follows: All those who had taken part in the war, returned home in order, singing and dancing, and bringing with them those who were to be sacrificed, decorated with feathers and chalchiuites on their wrists and ankles, and with strings of cacao beans around their necks, the captains themselves conducting them in their midst. The pontiff and priests, at the head of the people, went out to meet the victors, with music and dancing; and when they encountered them, the captains delivered over the victims to be sacrificed, to the high priest; after which all went together to the court of their teupa, where they kept up the dancing night and day, for the periods above named. In the middle of this court was placed a block or bench of stone, on which the victim was stretched, the four priests holding him by the feet and hands. The sacrificer then came forward, loaded with plumes and bells, with a knife of flint, with

which he opened the breast of the victim, and took out his heart, and tossed it in the air in the direction of the four cardinal points, and finally threw it aloft directly in the middle of the court, in this way soliciting the divinity to accept the sacrifice, in return for the victory. This sacrifice was public to all the Indians, great and small.

During this period, the soldiers returning from the war, could not cohabit with their wives, but were obliged to sleep in certain calpules or barracks, which were given up to them for the occasion, by the young men who were learning the art of war. During the day they went to the houses of their women to eat and drink, and from thence to their plantations, always however, leaving a company to guard the town. The men sacrificed blood drawn from their private parts, and he who had most wounds in these was reputed to be most valiant. The women sacrificed blood drawn from their tongues and ears, and they sacrificed their entire bodies, taking up the blood with cotton and offering it to their idols—the men to Quetzalcoatl, and the women to Itzqueye.

Their superstitious ceremonies, at the time of planting their fields, were as follows: They put in little cups of calabash the seeds which they had selected for the purpose, and placed them before the altar of their idols. They next dug a trench in the ground, in which they planted the seeds regularly, covering them with earth; and over all they placed a large brazier, full of burning coals, on which they sprinkled copal and caoutchouc. The four priests then drew blood from their ears and nose, receiving it in certain large reeds, which they burnt before their idols. At other times they drew blood from their tongues and private members, and petitioned their gods to prosper the fruits of the earth, and give them abundant harvests. The high priest, in sacrificing, drew blood from the same parts, and with it anointed the feet and hands of the idols, invoking the demon, who spoke with him, and told him what kind of weather would follow, all of which was communicated to the people by the four priests, who always concluded by ordering the men to have connection with their wives, and then proceed to plant their fields. And such was the sacrifice of planting.

We come now to their sacrifices for hunting and fishing. They took a living deer to the courtyard of the cue or temple which they had outside of the town, where they strangled and skinned him, collecting all his blood in a vase, and cutting in small pieces the liver, lungs and stomach. These were put aside, with the heart, head and feet. They next cut up and cooked the deer by itself, and the blood by itself, and while these were cooking they had their dances. Next the high priest and his assistant took the head by the ears, and each of the four priests one of the feet, and the mayordomo put the heart in a brazier and burned it, with copal and caoutchouc, as incense to the idol of the god who was held to be protector of hunting and fishing. When the dance was finished, the head and feet were scorched in the fire before the idol, as an offering, and afterwards taken to the house of the high-priest and eaten. The flesh and blood were then eaten before the idol; and the same was done with all the animals which they offered in sacrifice. When they sacrificed fish, the entrails were burnt before the idol.

When a woman was in travail, the midwives made her confess her sins; but if this was not sufficient to hasten the birth, they made her husband do the same; and finally, if the woman admitted illicit connection with any other man, they went to his house and took his clothes and placed them beneath her; if this failed, as a last resort, the husband sacrificed blood from his tongue and ears. When the child was born, if a boy, they put in his hands a bow and arrows;

if a girl, a spindle of cotton; and the mother made a streak of soot mixed with water on the right foot of the child, which they believed would prevent it, when grown up, from being lost in the woods. At the end of twelve days, the child was taken to the priest, green branches being scattered under the feet of the bearers. The priest gave it the name of its grandfather or grandmother, as the case might be, and they presented it with cacao and fowls, which were the offerings made to the priest. When it was taken back to the house, the mother carried it to a river and bathed it, offering to the stream, cacao and copal, that it should never do evil to the child.

As regards the rites for the dead; if the defunct were a cazique or captain, or the wife or child of either, all the people mourned for four days and nights. At the rising of the sun on the fifth day, the high priest announced that the soul of the dead was with the gods, and that it was useless to mourn any longer. They buried the dead man dressed in all of his riches, in a sitting posture, and in his own house. Their manner of mourning during the four days and nights resembled a mitote, in which they chanted the lineage and deeds of the dead. If he were a cazique who died, the high priest and all the people, immediately recognized as his successor his son or daughter; or, if he had neither, his brother or nearest relative.

On such occasions they had great feasts, dances and sacrifices, and the new chief entertained in his house all the priests and captains. If a common man died, only his children and relatives mourned; and if a woman lost her child, she reserved her milk for four days, without giving it to another; for they believed, if she failed in this, the dead child would do the living one some injury. This sacrifice they called navitia.

It was the office of the cacique to order the plantings, and direct the marriages. They always married when young; and when the affair was arranged, and the affianced groom met his future father-in-law he turned aside, as also did the affianced bride when she met her future mother-in-law. They did this, because the devil had made them believe that such encounters would prevent their having children. Marriages were celebrated in this wise: the male relatives of the woman sought the bridegroom and made him bathe in a river; and the female relatives of the woman did the same with the bride; they then wrapped each of them in a new, white cloth, and took them to the house of the bride, where they tied them up naked, in their garments. The relatives of the young man then made presents to the bride of cloths, cottons, fowls and cacao, while those of the bride gave presents of the same kind to the bridegroom; after which they all feasted together. At these marriages the high priest and cazique were obliged to be present.

Concerning relationship: They have a tree painted, with seven branches, which represent the seven degrees of relationship in direct descent, within which no person might marry, excepting those who had distinguished themselves in war, but even these might not marry within three degrees of blood. In respect of the line collateral, they made use of another tree with four branches, which represented the four degrees within which no one could marry.

Aside from other laws which these Indians possessed in common throughout the province, those of this nation have the following as inviolable:

Whoever contemned or ridiculed the sacrifices to the idols, or the ceremonies connected therewith, was condemned to death.

Whoever had connection with a strange woman, was condemned to death.

Those who had carnal intercourse with relatives, within the degrees above proscribed, both suffered death.

He who spoke libidinously with a married woman, or who made improper signs to her, was banished and his property confiscated.

Whoever had commerce with a strange slave (one not his own ?) was himself reduced to slavery, unless pardoned by the high priest for services in war.

Whoever wounded another, if the wound were serious, suffered death therefor.

Whoever violated a virgin was sacrificed.

Whoever lied was severely whipped; and if it were in any matter concerning war, he was enslaved.

Those of the people who were not soldiers cultivated the plantations of the cazique, pontiff and priests; and also gave a part of their own crops for the support of the warriors.

This is what I have been able to gather concerning the manners and custom of this people.

Near this place, is a high rocky hill from which flow two streams of water, close to each other, one hot and the other cold. Here too is found an abundance of spices, which the Indians use in their drink and food; and an earth which resembles copperas, and which it must be judging from its effects. With this they make a dye.

From here to the borders of the province of Chiquimula de la Sierra, the country is for the most part high, of good temperature, abounding in pasturage, and adapted for the support of cattle, and the cultivation of all kinds of grains.

In the portion of this province which lies in the direction of Gracios á Dios in Honduras, are the Chontal Indians. While there, complaint was made to me against a cazique of a place called Gotera, who since the time of his paganism had had his private member split open, as was the custom anciently, among the most valiant. In 1563, certain idolatrous Indians of another village called Cezori, got together in a neighboring forest where one of them performed the same operation; and afterwards they circumcised four boys of twelve years of age, in the Jewish manner, offering the blood to an idol of stone of a cylindrical form, with a double visage and many eyes, called Icelaca. They say that he is the god which knows the present and the past, and sees all things. Both his faces were anointed with blood, and they sacrificed to him deer, fowls, rabbits, peppers, and other things which they used in ancient times.

Torquemada (1723, lib. 3, cap. 41, vol. 1, p. 330) has recorded a Lenca myth which, he says, was told him by the old people. According to them, 200 years before this time, there came to Cerquin (Lehmann states, 1920, vol. 2, p. 636, that this was probably Corquin in the Department of Gracias, Honduras), a lady, white as a Castilian, whose name was Comicahual, meaning " jaguar that flies ", so named because she was very wise and versed in supernatural arts. These Indians held the jaguar in high esteem. She made her abode in Calcoquin, which was the most fertile land in the province. Here there were stone " lions " which they worshiped, and a large three-pointed stone which had on each point three grotesque faces. Some said that Comicahual carried it there through the air and by its virtue

won battles, thus extending her realm. Some said that she had three supernaturally conceived sons, others said they were her brothers. When she grew old, she distributed her territories among them with advice concerning the good treatment of her subjects. She then commanded that her bed be taken out of the house. Lightning flashed and thunder roared. The people saw a beautiful bird flying across the sky and, as they never saw the lady again, they believed she was the bird and thus went to the sky. The sons (or brothers) divided the realm and governed it well. The people were courageous and warlike. They had been taught religion and enchantments by the Lady Comicahual. Among the many idols which they adored, there was one called the Great Father and another called the Great Mother. To these idols they prayed for their well being. Other gods were introduced, to whom they prayed for food, property, riches, and that their lands might prosper, and produce abundantly. And, " for many years these superstitions and deceits of Satan lasted among the old people." Lehmann (1920, vol. 2, p. 637) is inclined to identify the Calcoquin of Torquemada with the Icelaca of Palacio. He goes on to show that similar rites, presumably originating with the Pipil as indicated by Palacio, extended as far north as the Bay Islands in the Caribbean. This evidence, derived from Salcedo, has already been cited elsewhere (Strong, 1935, pp. 14, 15) and need not be repeated here. Sufficient for our present purposes is the fact that elaborate but basically similar cult observations extended from Salvador north beyond the mouth of the Ulua River and that many of these at the time of the Conquest seem to have originated in Pipil territories. Only the results of scientific archeology can show whether this historic Salvadorean center was actually primary or was derived from still earlier sources of cultural development. This will be discussed in relation to the results of our own archeological excavations.

Linguistically, the Lenca and the Jicaque have since been studied by various travelers. This material has been summed up and amplified by Lehmann (1920, vol. 2, pp. 649-722). From the ethnographic standpoint, recent work on the Lenca and Jicaque has been pitifully inadequate. Habel (1880) describes various Jicaque he met in the Department of Yoro as follows:

> The Xicaques differ in the form of their bodies from all the other tribes of Central America. Their stature, on the average, being equal to that of Europeans, is greater than that of the other tribes. Their skin is of a lighter color, and their features resemble more closely those of the Caucasians, having a more pleasant and intelligent expression than any other tribe of this region known to me. Both sexes wear a kind of apron made of the inner bark of the Caoutchouc tree. That of the women reaches around the waist and the ends hang down

from the hips to the knees. These two flaps are attached to the body by a strap of the same material fastened around the waist. By another narrower strap, tied around the head, they secure the long black hair, parted in front, floating down to the shoulders.

According to Habel, the Jicaque had but recently been gathered into permanent settlements through the splendid efforts of a Spanish missionary. He adds that they were improvident, did not cultivate the soil nor raise any large domesticated animals. They had formerly been permitted to sell themselves into practical slavery, but this practice had then been stopped. They traded in sarsaparilla and tobacco. Habel goes on to discuss the physical and other characteristics of the still numerous Paya, who appeared to him to be much darker in pigmentation than the Jicaque. We have previously indicated that quite primitive groups of Jicaque survive at the present time.

According to Otis T. Mason (1889), the Lenca of Honduras had an ingenious method of straightening lance shafts. A pole about 16 feet long was suspended vertically from the limb of a tree by a lariat attached by half hitches to both ends of the pole. At the lower end, the lariat was attached to a rock weighing around 50 pounds, the shaft being thus held straight while seasoning. He goes on to describe a variant of the musical bow used by the Lenca which was called a "bumbum." This strung bow had a small gourd on the back of the bend which was attached to the bow cord by another string running at right angles. The bow was rested on a half gourd inverted on the ground, which gave added resonance while playing (Mason, 1889). Apparently this instrument was not confined to the Lenca, for Habel (1880, p. 31) describes an identical instrument used at about the same time by the Pipil of the Balsam Coast of Salvador. Here it was strung with wire and called the "carimba." The melody was produced by strumming the wires with a stick and cupping the hand over the gourd. Quite possibly this represents a variant of the musical bow, or it may be a historic borrowing from the African marimba so popular in Central America at present. Whether it is primarily of New World or of African origin, we cannot say.

In June 1936 the junior and senior authors of the present report were grounded by an airplane accident at the town of San Pedro Sula in Honduras. While waiting for a track car, we were entertained by a small native boy who, with a short stick, strummed dolefully on the identical instrument described by Mason. In this case the bow string was of wire and the bow rested on an empty carton instead of a gourd.

Squier (1859, pp. 603-619) gives a brief but vivid picture of a fiesta at Comayagua in which Indians from the nearby mountains performed dances accompanied by much ceremonial drinking and native ritual. The deer and the ocelot were the symbols of the two main dancing groups. Their musical instruments consisted of flutes, the Panspipe, the marimba, and a covered pot with a string drawn through the bottom. At this fiesta, the Indians, the majority of whom were probably Lenca, visited the numerous ruined towns in the vicinity of Comayagua that had been occupied at the time of the Conquest. He also described an extremely isolated village of the Guajiquero Lenca and gives an amusing account of the difficulties involved in securing linguistic or ethnographic information from the Indians. As anyone knows who has attempted work with Honduras Indians, the repression of almost half a millennium combined with linguistic barriers is not an easy thing to overcome. However, it is obvious from Squier's account that a wealth of native custom and belief still survives among the more isolated groups.

Such survivals, combined with the extremely haphazard nature of previous research among the living Indians, indicate that there is much more information available in Honduras for the trained ethnologist and linguist than has been generally realized.

EARLY HISTORIC CONTACTS IN NORTHWESTERN HONDURAS

The fourth voyage of Columbus gives us our first historic glimpse of conditions on the Honduras mainland. Having visited the Bay Islands, Columbus landed at Punta de Caxinas (the Cape of Honduras) on August 14, 1502. The chroniclers of this voyage give a brief but vivid picture of the advanced agricultural life and the thriving coastal trade then existing on the north coast of Honduras.[7]

In 1524 Gil Gonzalez named Puerto Caballos (later to become Puerto Cortez) and established a settlement at San Gil de Buena Vista. From this base he sailed down the coast and marched overland into the Olancho valley, where he met and defeated a force under Hernando de Soto that had been exploring this region from Nicaragua. Returning to Puerto Caballos he was informed of the arrival of a Spanish fleet under Cristobal de Olid.

It is of interest that again Honduras becomes a buffer area and battleground between two earlier established southern and northern

[7] Pertinent historical and ethnographic information regarding the Bay Islands and the adjacent mainland have been given elsewhere (Strong, 1935, pp. 7-19). The following historical résumé of the Ulua region is primarily condensed from Bancroft, History of Central America, vols. 1 and 2, 1883. Other sources are cited as they occur.

centers, the one in Panama under Pedrarias, the other in Mexico under Hernando Cortez. Not content with the rich spoil of the Aztec Empire, Cortez had already cast covetous eyes to the south where rumor painted the golden glories of Hibueras or Honduras. For this reason he despatched a trusted lieutenant with a fleet to conquer the province. Having already reached an agreement with Velasquez, Governor of Cuba and the rival of Cortez, Olid, in 1524, established the settlement of Triunfo de la Cruz east of Puerto Caballos and withdrew his allegiance from Cortez. The latter countered by dispatching another fleet under Las Casas, which proceeded from Mexico to the Bay of Honduras. Olid promptly attacked Las Casas. As Bancroft says, "it was an original spectacle in these parts, Spaniards fighting Spaniards, in regular naval engagement; and as the hissing projectiles flew out from the smoke over the still waters, followed now and then by a crash, the noise reverberating over the forest-clad hills, the dusky spectators should have been exceedingly grateful for this free exhibition of the wisdom and power of European civilization that had come so far to instruct them in such a fashion."

Although the honors of battle, if any, went to Las Casas, a tropical storm wrecked his fleet and he was forced to surrender. Along with Gil Gonzales, who had also been captured by Olid, Las Casas was taken inland to Olid's headquarters newly established in the large Indian town of Naco (see maps, figs. 1, 2). Here, although they were treated as guests by their captor, the two captives plotted against Olid, and eventually cut his throat with a table knife. Crawling away into hiding, Olid sent for a priest. The latter being followed, Olid was dragged into the plaza at Naco and publicly beheaded. Las Casas returned to Mexico by an overland route through Guatemala. Even today, over 400 years later, a tradition still persists among the unlettered inhabitants of present-day Naco that here "the king was killed" after being dragged in from his hiding place at El Salto, the falls of the beautiful little Naco river. Here, as elsewhere in the New World, European civilization was ushered in with blood and treachery.

Meanwhile Cortez had had no word from his latest Honduras venture. Despite the advice of his other lieutenants, he decided to leave Mexico and proceed overland to Honduras.[8]

[8] The best sources on this amazing expedition are given in Maudslay's translation of Bernal Diaz, "The True History of the Conquest of New Spain, vol. 5", 1916. The pertinent letters of Cortez to the Emperor Charles V are also included in this volume.

It is of interest that before starting, Cortez obtained maps from the Indians of the Vera Cruz region showing the entire area between that point and Panama. It is apparent that he was traveling along well-known aboriginal trade routes throughout most of his journey, and he mentions that nearly all the towns he stopped in were full of traders. The details of his Yucatan traverse do not particularly concern us here until he arrived at Nito near the Gulf of Dulce. Here he found the diseased, starving remnants of Gonzales' colony. Making an expedition up the Gulf of Dulce, Cortez captured a well-provisioned pueblo and obtained supplies for continuing his journey. From Nito, Cortez proceeded by sea to the vicinity of Puerto Caballos, where he established a settlement. He sent Sandoval overland to Naco. After crossing the Motagua River and visiting several pueblos, Sandoval's force arrived at Naco. The town had been recently deserted by its native inhabitants but contained abundant provisions and even salt; and here the Spaniards settled themselves, in the words of Bernal Diaz, "as though we were going to stay there forever." In a later section on the excavations at Naco, we will give more details regarding native conditions in the vicinity of Naco at the time of Sandoval's visit.

Regarding the probable linguistic affiliations of the natives of Naco and the adjacent pueblos, it is significant that Lehmann lists three pueblos mentioned by Bernal Diaz "in the neighborhood of Naco" as having Nahuatl names.[9]

Similarly, Cortez states:

> When I first arrived at this pueblo (San Andrés), I heard from the Spaniards who had come from Naco that the natives of that pueblo and of the neighboring pueblos, were somewhat disturbed, and had left their houses for the hills and forests, and that although some of them had been reasoned with they refused to be pacified from fear of the treatment that they had received at the hands of the followers of Gil Gonzalez and Cristobal de Olid. I wrote the Captain in charge there and told him to do all that he could to capture some of the natives by whatever means he could devise, and to send them to me so that I could speak to them and reassure them. This he did, and he sent me certain natives whom he had captured during an expedition which he had undertaken, and I talked to them and gained their confidence, and let them talk with some of the native Chiefs from Mexico, whom I had brought with me. These Chiefs told them who I was, what I had done in their country, and what good treatment they had received from me when once we were friends, and how they were protected and governed in justice—they and their property, their wives and children—and the punishment that those received who rebelled against the service of your Majesty, and many other things which they told them. After this,

[9] Lehmann, 1920, vol. 2, p. 1018. Also see Nahuatl distributions on linguistic map.

they regained confidence, although they still told me that they had some fear that they were not being told the truth, for those captains who had come in advance of me had told them the same things and more to the same effect, and that they had lied to them and had carried off their women when they had sent them to make bread, and that the men who accompanied them had been forced to carry loads, and they believed that I would do the same. Nevertheless, with the assurances which the Mexicans and the Interpreter (Marina, a Mexican woman) whom I had with me gave them, and seeing those of my company happy and well treated, they were somewhat reassured. I sent them off to speak to the Chiefs and people of the pueblos, and in a few days the Captain at Naco wrote me that some of the neighboring pueblos had become peaceful, particularly the chief pueblos which are: Naco, where the Spaniards are residing, Quimiztlan, Sula and Tholoma (Cheloma)—the smallest of these had more than two thousand houses—and other villages which were subject to them; and that the envoys said the whole country would soon be at peace, for they had sent messengers to pacify the people, telling them of my arrival among them and all that I had said to them, and also what they had heard from the natives of Mexico; they added that they greatly desired that I would go to Naco, as my arrival there would give confidence to the people. This I would have done with good will, had it not been very necessary for me to continue my journey in order to arrange that which I shall explain to your Majesty in the following chapter.[10]

From the foregoing it seems quite possible that the people of Naco spoke a Nahuatl dialect understandable to the Aztec caciques and to Doña Marina, Cortez' famous Mexican Indian woman interpreter. Had the temporary captives from Naco been Jicaque, Lenca or Maya, this would not have been possible. It is also possible that certain Nahuatl dialects served as a *lingua franca* in the area, due to the obviously extensive trade connections then in existence with Mexico and to the extent of Pipil influence exerted from Salvador. However, elsewhere Cortez mentions linguistic difficulties when entirely alien languages were encountered by his men, but this does not seem to have been the case here.

Cortez then proceeded by sea to the newly founded town of Trujillo. His settlement near Puerto Caballos was soon abandoned, owing to sickness and lack of food, in favor of Naco. A number of large and rich pueblos in this vicinity were gradually conciliated by Sandoval, but the inhabitants of Naco, owing to the severe treatment they had received from Olid, refused to return to their homes. While Sandoval was at Naco, the caciques of two pueblos named Quespan and Talchinalchapa came to him to report the depredations of some other Spaniards who had arrived from the South.[11] These were seized and proved to be a party under Garro from Nicaragua that had been

[10] Bernal Diaz, 1916, vol. 5, p. 407, from the fifth letter of Hernando Cortez to the Emperor Charles V; also see p. 60.

[11] Bernal Diaz, 1916, vol. 5, p. 66.

sent to claim the lands to the north for Pedrarias. They were well equipped with arms and horses and had handsome Nicaraguan Indian women with them. Sandoval sent them under guard to Cortez at Trujillo. Bernal Diaz, who was with this overland party, describes the difficulties and the Indian fights they encountered. Unless one has actually traveled through these mountainous, tropical countries, it is impossible to appreciate how truly amazing such early Spanish journeys were. Even today an overland trip from Naco into Nicaragua would be an expedition not to be undertaken lightly. Yet in the time of Cortez, Spanish adventurers seem to have already traversed the Central American cordilleras from end to end. Cortez returned Garro to Nicaragua with messages of good will and mining supplies. For some time Cortez toyed with the idea of adding Olancho and Nicaragua to his conquests and even went so far as to start a road from Trujillo to Nicaragua! However, a mission from Mexico arrived with bad news, and the road is still unbuilt.

Hearing that his holdings in Mexico had been seized by enemies, Cortez determined to return at once. Before departing he ordered Luis Marin with a number of discontented colonists from Trujillo to proceed to Naco where there was abundant good land. Saavedra, who was then campaigning in Olancho, was to remain as Governor of Honduras. After a hard trip Marin arrived at Naco, and the next day, in company with Sandoval, set out on the overland trip through hostile Guatemala to Mexico. Meanwhile Cortez, who, strange to say, appears to have been a very bad and timorous sailor, had been driven back by storms. Messengers were sent to Sandoval ordering him to stop and settle. This was a great blow to the overland party, for they desired above all else to return to Mexico. Sandoval hurried to Trujillo to plead with Cortez, that he set sail and let the overland party proceed. Under Marin the latter went "to some pueblos called Maniani and thence to another pueblo named Acalteca, where at that time there were many houses." [12]

Despite Sandoval's plea, Cortez still refused to sail. Sandoval was dispatched to Olancho where he drove out Rojas, a lieutenant of Pedrarias. On Sandoval's return, Cortez sent orders to Marin to proceed, and he ordered Godoy, who was forming a settlement at Puerto Caballos, to go to Naco with all his people. Finally, in 1526, Cortez set out for Cuba and, eventually, Mexico.

Finally, Pedro de Alvarado, having received orders from Cortez to proceed from Guatemala to Honduras, began his march. Marin,

[12] Bernal Diaz, 1916, vol. 5, p. 86.

desperate and without orders, sent a party of 10 men through Olancho to go to Trujillo. According to Bernal Diaz, they got as far as the gold-working region on the Guayape River, when they learned of Cortez' departure. Receiving orders from Saavedra to return, they did so, and, Bernal Diaz remembers, they threw stones at the country as they left. They met Marin at the pueblo of Acalteca and then proceeded to another pueblo called Maniani, where they encountered six of Alvarado's soldiers. In two days' marching they reached Alvarado "near the town called Chuluteca Malcala." This was probably the site of Tegucigalpa on the Choluteca River. From here the combined parties proceeded toward Guatemala after a difficult crossing of the Lempa River, which was then in flood.

Years later, Bernal Diaz (1916, vol. 5, pp. 328, 329) thus recalled the country of Naco and of the Ulua River, as it was when he first saw it and as it soon became:

> and what I state I know, for when I came with Cortés on the expedition to Honduras I was present in Trujillo, which was called by the Indian name of Guaimura, and I was at Naco and the Rio de Pichin, and that of Balama, and that of Ulua, and in nearly all of the pueblos of that neighborhood, and it was thickly peopled and at peace (and the people were living) in their houses with their wives and children; but as soon as those bad governors came they destroyed them to such an extent, that in the year fifteen hundred and fifty one, when I passed through there on my return from Castile, two Caciques who had known me in the old days, told me with tears in their eyes of all their misfortunes and the treatment (they had received), and I was shocked to see the country in such a condition.

The details of this tragic and complex period in Honduran history cannot be considered here. The withdrawal of Cortez threw the new colony into turmoil and the starving colonists engaged in every form of intrigue. Coming from Guatemala, Pedro de Alvarado took over the governorship and set about pacifying the country. He built the town of San Juan at Puerto Caballos and founded San Pedro. For the Indians this was an even more tragic period. According to Bancroft (vol. 7, pp. 233-234) Indian slaves were kidnapped and sold in Honduras by the shipload. In the vicinity of Trujillo where there had been villages of from 600 to 3,000 houses, there were not more than 180 Indians left in 1547. Those not enslaved or killed had fled to the mountains. At Naco, where there had originally been a population of about 10,000, there were, in 1536, only 45 remaining. At La Haga, a coastal town some 9 leagues from Trujillo, there had been about 900 houses, but of the entire population, only the daughter of the Cacique remained. The cruelty toward the natives was even greater than in Guatemala. In 1539, when Alvarado returned from Spain

and transported the materials for building a fleet across the isthmus, the entire remaining Indian population fled. These evils were presented in full detail by Bartolome de Las Casas, and the new laws resulting from his famous publication at least gave nominal protection to the oppressed natives.

In answer to a petition from Trujillo, the Emperor appointed Francisco de Montejo, the former governor of Yucatan, as ruler of Honduras. Only a handful of starving Spanish colonists remained. Montejo subdued but did not enslave the Indians of the mountains near Trujillo. Many Indians returned voluntarily to their homes in this region. Montejo then visited the town of Gracias á Dios. Here, owing to the murder of a Spaniard, he arrested and punished the Lenca Indian ring leaders in the presence of the Caciques of the district of Cerquin previously referred to. This aroused the opposition of the famous Lenca leader Lempira, "Lord of the Mountains." Lempira had previously withstood Alvarado and driven off Spanish attacks under Chavez, and he now opposed Montejo. The great Indian leader had secured allies from various interior tribes including several that had formerly been hostile to the Lenca, and was estimated to have a force of some 30,000 warriors.

According to Lehmann (1920, vol. 2, p. 637), he had united the men of more than 200 towns and commanded over 2,000 "men and gentlemen of distinction."

"Lempira, the last of the chiefs of Corquin, made his final stand against the Spaniards on the mountains of Piriera, which overlooks the valley of the river Lempa, in the name of which beautiful stream his own is commemorated." (Squier, 1858, p. 329.)

Here for 6 months he was besieged by Caceres, a lieutenant of Montejo, but so greatly were the Spaniards harassed by the Indians that they were on the point of failure. Siege and assault having failed, Caceres resorted to treachery. Under a flag of truce Lempira came to the walls of his stronghold to parley with his enemies and was shot by a hidden marksman. The Lenca and their allies fled, and the great conspiracy soon fell to pieces.

Mrs. Popenoe, quoting from a letter from Montejo to the King of Spain, June 1, 1539, gives the following account of the latter part of this campaign against the Lenca:[13]

> Disturbing news reached Gracias, where Montejo was sojourning with 11 Spanish soldiers. The Indians were preparing stubbornly to resist him. In Yamalá, a nearby village, they were building many houses on a great, very

[13] D. H. Popenoe, 1936, pp. 559-560. For the original, see Colección de Documentos Inéditos, 1864, vol. 2, pp. 212-266.

strong rock which they have, and providing them with provisions. The Spanish chieftain sent a Negro spy, who knew the language of the Indians, to enter the stronghold and bring back a report. The frightened Negro found there four houses built very large, and four more larger ones full of corn, and he set fire to the houses and to the corn. Word came of a great disaster in the valley of Comayagua. The Indians had risen. One Spaniard had been killed and several others wounded. Four horses had been lost. Unable longer to withstand the siege, the Spaniards had fled at night to a neighboring province where the inhabitants were friendly.

Montejo realized that the time had come for desperate action. Supplies were brought together, and soldiers were called in from regions where the danger of rebellion was not imminent. Others who had been wounded but now had recovered sufficiently to join the colors, augmented the small band which was placed under the leadership of Alonzo de Cáceres, recently returned from the final campaign against Lempira.

When they arrived at Comayagua they found that the Indians, doubtless apprised of their approach, with all available supplies would fortify themselves on big rocks. Cattle which they could not take with them had been killed and eaten, so that the valley was now in a state of starvation.

Montejo advanced into one part of the valley, Cáceres into another, attacking and capturing a mountain fortress "which was the strongest in that region." The last named leader then proceeded to a village, by name Guaxerequi, where six Christians had recently been killed. There he found another fortress. At this point he was rejoined by Montejo, who describes the place in his letter. He says: "and (has) seen (or visited) a great rock, which was the strongest thing that has been seen, which, if they had time to cut a ridge of mountain, which they were cutting, would be impossible to capture, for they had on it water and wood and cultivated fields and many provisions; they had 220 large houses, and certain temples and places of worship."

It took the combined forces of Montejo and Cáceres four months to conquer the valley of Comayagua, after which they carried the campaign into Olancho.

Such stories as the above throw much light on the importance of fortified mountain tops at the time of the Conquest. Although it has been impossible to place Tenampua (the famous archeological site near Comayagua, first described by Squier, 1858 and 1869, see map, fig. 1), among the strongholds described in the early accounts at my disposal, it seems probable that it may have been one of those captured during the campaign carried out in the Comayagua region by Francisco de Montejo and his lieutenant, Alonzo de Cáceres. It may have been the formidable Guaxerequi described in Montejo's letter.

In the light of the partially cut "cuchillo" or narrow neck connecting Tenampua with the main promontory to the northeast (D. H. Popenoe, 1936, pp. 562, 563 and map), I am inclined to believe that this identification of Guaxerequi and Tenampua is indeed very probable.

It is certain that a complete combing of the sources, combined with first-hand examination of the available archives in Honduras and neighboring countries, would yield a considerable mass of information on the Lenca and their neighbors, but this is not possible at

present. All that has been attempted here is to suggest the main trends of a fascinating historical period and to indicate the probable distribution of ethnic groups in the region under investigation. We turn now to outlining the results of direct archeological research.

ARCHEOLOGICAL EXPLORATIONS

Chamelecon River

Our reconnaissance of the middle Chamelecon River extended from May 26 until June 17, 1936. It was aimed primarily at Naco but several other sites were also investigated. Through the courtesy of the United Fruit Company we lodged comfortably at Manacal Ranch (map, fig. 2) which is located about a mile south of the town of Cofradia. Here we obtained horses and mules and were thus able to work at a number of archeological sites in the general vicinity. We first visited the San Luis site just above the confluence of the Naco and Chamelecon Rivers (map, fig. 2). Next we spent 2 weeks mapping and digging exploratory trenches at Naco. The remainder of the time was occupied in making stratigraphic sections and maps at the prehistoric Las Vegas and Tres Piedras mound sites.

NACO

All Honduras records of the Conquest refer to Naco, first as a thriving Indian town and later as the site of repeated Spanish settlements. The Indian pueblo of Naco was only one of a considerable group in the vicinity. Montejo states that the original population of Naco was 10,000 persons (Colección de Documentos Inéditos, 1864, vol. 2, p. 228), an estimate that agrees reasonably well with the previously cited statement of Cortez that the smallest of the pueblos in that vicinity had more than 2,000 houses. Las Casas, speaking of Honduras, says: "Tenia Pueblos innumerables, y una vega de treinta leguas y mas, toda muy poblada . . . la ciudad de Naco que tenia sobre dos cientas mil animas, y muchos edificios de piedra, en especial los templos en que adoraban" (cited by Bancroft, Native Races, vol. 4, p. 77). When compared to the other authorities, as well as to the size of the ruins, this would seem to be an extremely exaggerated estimate. Similarly, his statement (Las Casas, 1822, p. 45) that between the years 1524 to 1535 more than 2,000,000 Indians perished in the kingdom of Naco and Honduras, leaving only 2,000 inhabitants in a territory 100 leagues square, must be taken with a large grain of salt. Diaz, Montejo, and others give ample proof that the natives of Honduras were cruelly despoiled and that whole districts were de-

populated in the early days of the Conquest. Nevertheless, the wholesale statistics of Las Casas seem to be those of a crusader rather than a historian.

Bernal Diaz (1916, vol. 5, pp. 56-59) gives a first-hand picture of Naco as it was in 1525.

> At the hour of Mass we went to Naco. At that time it was a good pueblo, but we found it had been deserted that very day, and we took up our quarters in some very large courts where they had beheaded Cristóbal de Olid. The pueblo was well provisioned with maize and beans and Chili peppers, and we also found a little salt which was the thing we needed most, and there we settled ourselves with our baggage as though we were going to stay there forever. In this pueblo is the best water we have found in New Spain, and a tree which in the noonday heat, be the sun ever so fierce, appears to refresh the heart with its shade, and there falls from it a sort of very fine dew which comforts the head. At that time this pueblo was thickly peopled and in a good situation, and there was fruit of the Zapotes, both of the red and small kind, and it was in the neighborhood of other pueblos.
>
> . . . When we arrived at the Pueblo of Naco and had collected maize, beans and peppers, we captured three chieftains in the maizefields and Sandoval coaxed them and gave them beads from Castile, and begged them to go and summon the other caciques and we would do them no harm whatever. They set off as they were ordered to do, and two caciques came in, but Sandoval could not induce them to repeople the pueblo, only to bring a little food from time to time; they did us neither good nor harm, nor we to them, and thus we continued for the first days. . . . When Sandoval saw that the neighboring Indians and natives of Naco did not want to come and settle in the pueblo, although he sent to summon them many times, and that the people of the neighboring pueblos did not come or take any notice of us, he decided to go himself and manage to make them come. We went at once to some pueblos called Girimonga and Açula, and to three other pueblos near Naco, and all of them came to give fealty to His Majesty. Then we went to Quimistan [Quimistlan in preceding chapter, Quimistan on map] and to other pueblos of the Sierra, and they too came in, so that all the Indians of that district submitted, and as nothing was demanded of them beyond what they were inclined to give, their submission did not weigh on them, and in this manner all was pacified as far up as to where Cortés founded the town which is now called Puerto de Caballos.

Modern Naco is a small village of perhaps a dozen mud-walled and thatched houses on the beautiful little Naco River. Permission to excavate was kindly granted us by the son of the owner, Dr. Paz Barraona, and by Don Santiago Nolasco, the head man of the village. Don Santiago and the other residents of Naco were interested spectators or laborers during our work here and the children brought us many fragmentary specimens from the adjacent river banks. The heart of the site is still covered by the small but very dense shade trees mentioned by Bernal Diaz. These shaded our work but made mapping difficult. Noontime siestas spent under great jungle trees

bordering the rapid, sparkling, Naco River made us appreciate the remark of the soldier-historian that "here is the best water we have found in New Spain."

It is not the purpose of the present report to discuss fully the excavations at each site nor to analyze the archeological findings in any detail. Instead, a brief summary of significant excavations will be given, and at least one stratigraphic or horizontal artifact record at each site will be outlined in an effort to indicate the apparent trend of local cultural development. This preliminary analysis will be confirmed or amended in the final report in accord with the full statistical findings and in relation to all the excavations. Although no numerical record of artifact or ceramic types is given at this time, an effort has been made to discuss them quantitatively rather than selectively. In regard to ceramics, which greatly preponderate over any other artifact types throughout the entire Ulua drainage, we have here attempted to suggest the relative proportions of all wares at each site or in each stratigraphic section discussed. When the very extensive sherd collections of the expedition have been analyzed and the data fully presented it will be possible to check this preliminary analysis against the complete record. In regard to technical names applied to various soil layers these have been used in a very general sense. When our soil samples have been fully studied by experts it may be possible to supplement the cultural record with the detailed findings of soil analyst and sedimentation expert.

As previously indicated, the ruins around Naco are extensive, and our detailed survey deals with only the central area. The map (fig. 3) gives the essential data in regard to mound orientation and elevations. In general, the Naco mounds are low and rounded, apparently forming the foundations of houses, but the group just northeast of the ball court differs in this regard. Mound 6 appears to have been the center of the complex. It is still the highest and was, in all probability, originally faced with squared stones, forming a square-faced pyramid with a flat top (fig. 3). A few of the cut stones are still in place. It has been sadly damaged by the disruptive effects of tree growth. According to local authorities it has also suffered by an earthquake, by having its stone facing removed for road foundations, and, about 1902, by treasure-hunting excavations. It is still quite impressive, however. Mound 6 is flanked by mounds 3, 4, 5, all of which are exceptionally large. To judge by mound 3, which we cross-sectioned near its southern end (fig. 4), mounds 3 and possibly 5 were originally capped by thick white plaster. This had eroded off the steep sides of mound 5 but was present at the base and over the flattened

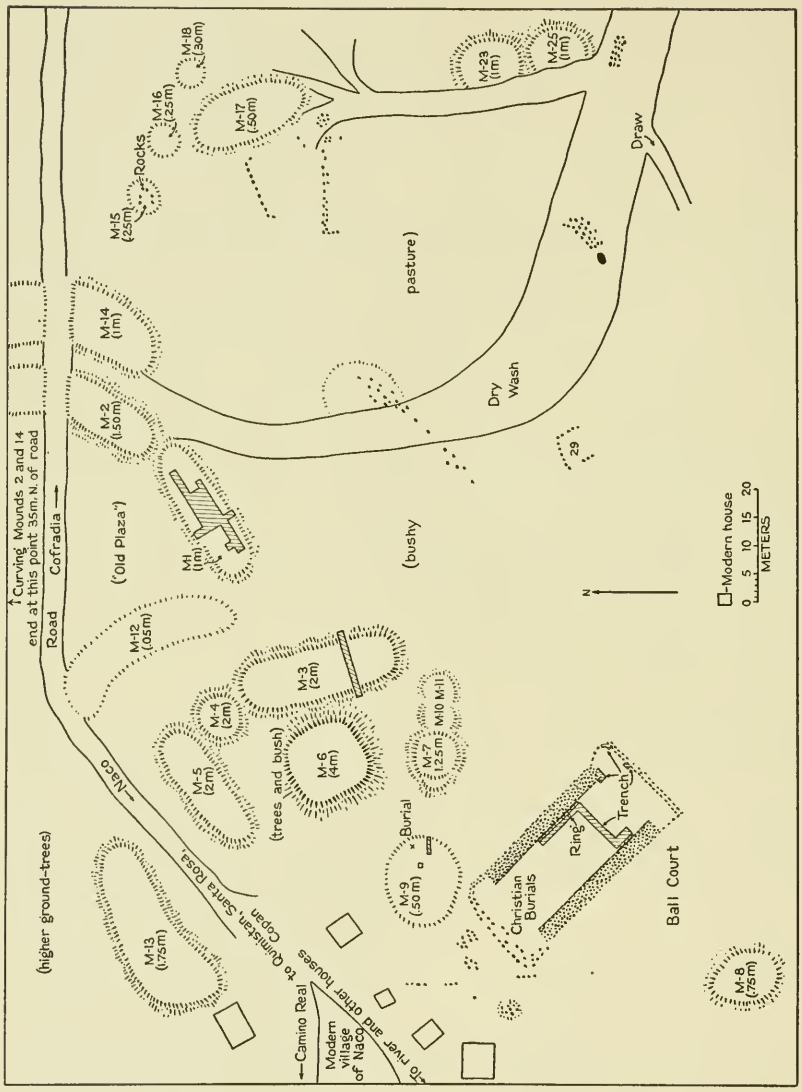

FIG. 3.—Sketch map of the ruins of Naco.

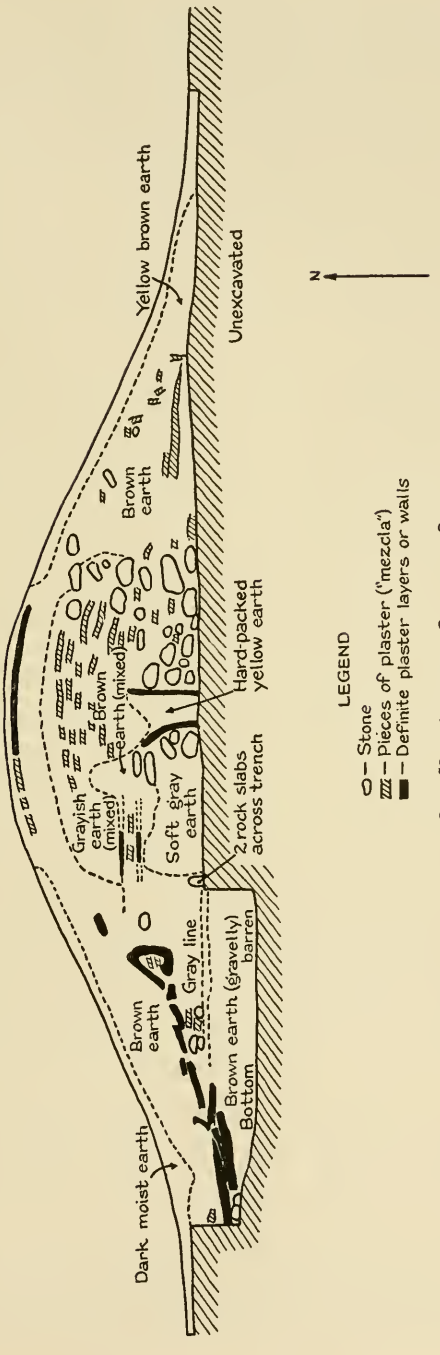

FIG. 4.—North wall of cross-section trench through mound 3, Naco.

top (fig. 4). Mound 3 included an inner structure the nature of which could not be satisfactorily determined by our one cross trench. This occurrence of two thin plaster walls running through the heart of the mound is shown in the illustrations (pl. 1, 2 and text fig. 4). A small trench in mound 9 (fig. 3) revealed aboriginal refuse and disarticulated human remains. Owing to its proximity to certain historic burials, work here was discontinued.

Horizontal stripping of mound 1 (fig. 3) revealed considerable portions of the floors of two houses with massed small boulders on the north side and tumbled adobe blocks on the south side (Strong, 1936, fig. 68). The plastered floors were stained a rich, dark red. Fragments of plaster apparently from the walls showed five successive layers of red, yellow, red, blue gray, and red indicating the varying washes used in decorating the interiors of the houses. These colors were very fresh when uncovered but have since faded slightly. To judge from our test cuts, these long, low mounds north of the central pyramid complex consist of rows of house floors. Owing to the curve of mounds 2 and 14 (fig. 3) they enclose a crescentic area which may have been the old plaza of Naco. Our excavations, although very incomplete, indicate that with adequate time a whole series of house floors could be easily cleared. The earth covering them is shallow, and the floors are intact. Such work would be of the greatest value in revealing actual living conditions in aboriginal Naco. When the potsherds from inside mound 1 were being washed, we encountered two pieces of European glazed crockery. One of these (pl. 4, *m*) was obviously an early Spanish piece, the other might possibly have been intrusive from more recent times. Since it was in these houses that Olid, Bernal Diaz, and other Conquistadores lived, further excavations here might cast light on early historic as well as late prehistoric events. Certainly this association of early European and late Indian ceramics links the prehistoric and the early historic periods in Honduras. We also cross-sectioned mound 19, which is located about 30 meters east of mound 17 but beyond the edge of the map. This mound was about 1 meter high and 15 meters in diameter. It contained sherds and snail shells to a depth of 35 centimeters but no structural features of any sort. Here, as elsewhere in the vicinity of Naco, the underlying soil is hard and gravelly, making excavations below or beyond the artificially built or accumulated earth structures extremely difficult.

There remains to be mentioned the ball court. For present purposes the general diagram (fig. 3) and the photographs (pl. 2, fig. 1, and Strong, 1936, fig. 69) show the main features. Excavations here

were confined to the southeastern end, owing to the presence in the other end of modern burials placed here under the impression that the structure was a colonial church. The discovery of a portion of one of the ball court rings in the center of the north wall was of especial interest (pl. 2, fig. 1). A complete ring of very similar type, said to have been found at Naco by Sr. Roque Hernandez of San Pedro Sula and presented by him to Mrs. Dorothy H. Popenoe, is now at Lancetilla. It is possible that this specimen came from one of the neighboring pueblos, since none of the present Naco inhabitants remember its discovery and removal. As with the other structures at Naco, the ball court will be described in more detail at a later time.

We searched in vain for any large refuse heaps along the Naco River. Scattered sherds occur where the deeply worn trail leads down the steep gravelly bank to the river at the village but we found no thick deposits. The children brought us various fragmentary artifacts from along these banks but could show us no concentrated deposits. We saw little at Naco indicating any great antiquity, but our impressions were based on only limited study. Naco appears as a one-culture site, and we obtained no indication of stratigraphic changes.

Artifacts do not appear to be very abundant at Naco, although considerable broken pottery occurs in the various mounds and scattered along the river bank. The bulk of the ceramic remains here as elsewhere in the Ulua region are from monochrome cooking vessels which, so far as present knowledge goes, are rarely distinctive. From the samples preserved, this ware appears to be primarily dull red in color ranging from smoke-stained black to gray. For the most part it is fairly well polished, but a considerable portion has artificially scratched and roughened surfaces. Sizes are highly variable, but medium to small vessels seem to predominate. Rims are usually direct or slightly flaring; broad strap handles, notched flanges (pl. 3, *n*) and projecting lugs occur; and bottoms are either flat or slightly dimpled. Plain ware legs do not occur in our sample. The tempering of all the Naco wares is a fine micaceous grit. Particularly significant, though much less abundant, is the Naco painted ware (pl. 3). Characteristically, this ware has a white slip and painted, geometric or curvilinear decorations on both sides in red and black. One sherd (pl. 3, *a*) of this ware is unusual in showing a portion of what appears to be a plumed figure. The painted vessels appear to have been small and flat-bottomed with either direct or slightly flaring rims. Tripod supports containing rattles are very common in Naco painted ware (pl. 3, *s-w*). A strange, four-pointed,

bird- or animal-head foot is most the common type (pl. 3, *t, u*). The painted ware is not very well made, and the designs are usually badly eroded. A small proportion of unpainted and a few painted sherds have either heavily incised or raised geometric designs (pl. 4, *q, s-v, x-z*) in the interior. These were apparently made by some sort of a stamp. In one case the raised design left by the stamp was smoothed down and its outer border carved for emphasis. Three plain sherds show finely woven textile designs impressed on their inner surface (pl. 4, *n-p*). Sherds with incised designs also occur (pl. 4, *r*). On the whole, Naco ceramics consist of these two wares, the plain and the painted, but in excavations at mound 1, two intrusive types occurred. The first of these, consisting of two fragments of European crockery (pl. 4, *m*), has already been mentioned. The second type consisted of three sherds of well-made, highly polished and painted ware which apparently belong to prehistoric ceramic series from other earlier sites on the Chamelecon and Ulua Rivers.

Incensario fragments from Naco are of the usual frying pan shape (pl. 4, *a*) with the distinctive Naco painted designs. Two candelarios (pl. 4, *w*) are crude but unique. They are made of unslipped coarse pottery and have tripod supports. They represent the only type found by us at Naco. Spindle whorls are quite common at Naco and are well decorated with incised designs similar to those painted on pottery (pl. 4, *i, j*). Undecorated "bobbins", probably to hold cotton thread, are even more common (pl. 4, *l*). The occurrence of spindle whorls, bobbins and textile-marked pottery bears witness to the importance of cloth manufacture in aboriginal Naco. No distinctive type of figurine was noted at Naco. The various pottery heads, ranging from simple to complex, and the "speak no evil" monkey, are illustrated (pl. 4, *b-f*). Whistles seem rare at this site. Only one specimen was found (pl. 4, *h*) and this animal form suggests Chiriqui, although the red and black paint design is in the Naco style. The only other artifacts noted were the ubiquitous obsidian prismatic flake knives (pl. 4, *k*), and fragmentary legged metates and manos of lava. At Naco, as elsewhere in Honduras, there appears to have been an amazing emphasis on pottery in comparison with any other type of nonperishable artifact. Textiles and wooden implements have left only indirect evidences of their probable importance.

LAS VEGAS

This site, also known locally as "Potrerito de los Calpullis", is located less than 1 kilometer in a direct line and about 2 kilometers by trail from Manacal (see map, fig. 2). It is a neatly arranged

mound group and is one of the few in the Ulua-Chamelecon region that can be photographed to advantage (see Strong, 1937, fig. 70). The main features are four large mounds forming a rough square, with another low mound in the center. The largest mound, to the north, is about 2 meters in height, 27 meters in length, and 12 meters in width. The others are slightly smaller, those to the east and south being rounded rather than rectangular. The eastern mound had a trench, made by workmen from Manacal, in the east side. The central mound is about 1 meter in height with a diameter of 8 meters. It is connected with the eastern mound by a low neck. The four main mounds roughly correspond with the cardinal points, but there is no exact orientation. A low, stone-covered mound is located about 40 meters to the west. The entire group is located on an open strip of high, flat land, flanked on the east by a deep gully and on the south and west by the steep river banks. An artificial terrace of river boulders borders the site to the south. Behind the site rise rolling pine-covered hills, and between it and the river proper is a densely wooded flood plain.

No artifacts occur on the surface other than a very few sherds of plain brown ware. A rounded boulder in the central plaza suggested an ape's head somewhat similar to that shown in plate 16, figure 3, but we were unable to determine whether the stone had been actually worked. The men who had dug the deep trench in the eastern mound encountered nothing but stones and broken pottery. Pottery is visible in the cut to a depth of 2.5 meters. We ran a trench through the heart of the low central mound reaching a depth of 1½ meters in the center. The upper meter consisted of soil with many large boulders, stones, and a few pieces of plaster; below this was hard gravel. A few lava metate and mano fragments and a considerable amount of plain, brown pot sherds came from the upper meter. The Las Vegas ceramic remains are predominantly of an unslipped brown ware indistinguishable from cooking ware at Naco and in Ulua Polychrome sites. However, a few polished and slipped sherds occur, and some of these have linear designs in red and black. A few sherds of dull orange ware with red stripes, a small orange rim with red and black monkeys, and a hollow round tripod leg were also found.

TRES PIEDRAS

According to our workmen, this site received its modern name "because it is a place where they catch many fish", a puzzling explanation unless one is aware that the name "Tres Piedras" may be given to any person or place of particular potency. In a sense

Tres Piedras is a very miniature Copan since the Chamelecon River has nicely cross-sectioned it (pl. 2, fig. 4). It is located less than a kilometer down stream from Las Vegas and on the same or western bank (map, fig. 2).

Originally, the site must have resembled Las Vegas in outward appearance, having four mounds enclosing a central plaza. In the photograph (pl. 2, fig. 4) two of these mounds can be seen in cross-section on the right and left of the cut; the rear mound is visible to the left of the figures, but the fourth or nearest mound has been completely washed away except for the many boulders deposited in the river channel. A fifth mound, likewise cross-sectioned, occurs to the west. Unlike Las Vegas, the plaza at Tres Piedras had a series of three plaster floors, the highest at a depth of 1.5 meters below the present surface, the lowest at a depth of 2 meters. The material was a thick, white "mezcla" or plaster. The upper floor appeared to be flat, but the two lower floors each had one step rising to the east. From our limited excavations it was impossible to tell how extensive these floors originally may have been. Along the river bank they extended for about 10 meters, and a considerable amount of broken plaster was visible elsewhere on this general level and in the talus deposit at the foot of the bank. It seems probable that the entire court or plaza between the mounds was once paved, but until adequate excavations are made here this cannot be proved, nor can the nature of the steps or mound approaches be determined. Over the plaster to a depth of three-fourths of a meter is a thick deposit of large river boulders. These may have rolled down from the mounds or may have been placed here later to raise the level.

Among the vast quantity of stones deposited in the river bed from the portion of the site that has been washed away are many that indicate human workmanship. The most tantalizing of these are a considerable number of large lava blocks that strongly suggest sculpture in the round. None, however, are definite enough for certainty, but they do give an impression of either a dying or a nascent sculptural drive. The "ape's head" from Las Vegas is of this type and may have been transported there from Tres Piedras. In addition, there are numerous squared blocks of limestone or gray-green schist, one circular block with abrupt edges, and several thick slabs with holes drilled through them. Metate and mano fragments, as well as lapstones without legs, occur. Stones are particularly concentrated in the river bed below what was once the position of the east mound. With them occur large fragments of plaster flooring. This flooring often contains boulders or shows the molds from which

boulders came. Structurally, the Tres Piedras site appears to have been more pretentious than the majority of sites in the vicinity, and the remaining half is well worthy of complete excavation.

We made two small stratigraphic cuts, the first west of the central mound group between that and the outlying mounds to the west. The second was in the heart of the plaza. Both sections were on the face of the river bank and each was 5 meters long by 1 meter broad, extending down to sterile soil. The first excavation yielded some pottery at 10 centimeters and reached barren soil at about 1.70 meters. The second cut passed through three plaster floors and reached barren soil at 2 meters. The first yielded the most potsherds although even here they were not overly abundant. Gray to red cooking ware was most abundant in each of the five 30-centimeter levels. A very few sherds of Mayoid polychrome occurred in all but the bottom level. Above 1 meter all fragments of this type were from pots with buff to orange slips covered with florid, conventionalized, red, purplish, and black designs. Below 1 meter the same Mayoid types occurred, but in association with more realistic designs having human head panels. At this same level occurred fragments of an excellent Mayoid vessel with a panel of square, grotesque heads around the rim and, below this, an intricately carved design. The design had been carved after firing. Associated with these lower Mayoid types were a few sherds suggesting orange over buff negative painting; and cooking ware with dull, dark red line decoration. The second excavation in the plaza yielded few but similar pot sherds. However, the occurrence of a small, restorable imitation Ulua marble bowl just above the upper floor at a depth of $1\frac{1}{2}$ meters was significant. Maya carved ware occurred at this same depth in the first excavation. The three plaster floors in this second excavation have already been mentioned.

OTHER SITES

There are numerous mounds and other archeological sites in this region, but time to examine many of them was lacking. Close to Manacal Ranch is the site of Los Cocos, consisting of a few low earth and stone mounds that are being rapidly eaten away by the river (map, fig. 2). There is a deep 30-foot bank at this place. No notable structural details could be observed. The only pottery we obtained were some coarse, blackish brown sherds and one heavy, dull orange, sherd with eroded red and black designs.

Farther upstream, beyond the mouth of the Naco River, is the site of San Luis (see map, fig. 2). Here in a cut of some 3 meters occur many river boulders and large amounts of broken pottery. The

majority of the pottery is a coarse, brown or buff ware. There are also a number of heavy dull orange pieces with broad red stripes and some polish; as well as a polished red incised piece and a fragment of a heavy platter with coarse red and black line decoration. In the talus below this bank were two large, square cut stones of volcanic origin. A few crumbling human bones were also found in the bank and on the talus. There are no surface mounds at San Luis, but broken pottery occurs from just below the present surface to a depth of about 3 meters. No stratigraphic changes in type occur so far as our very small pottery sample is concerned, but the site merits much more careful study than we were able to give it.

As one rides past Cofradia on the way to Naco a few low mounds are visible to the south of the road just after one has crossed the Manchagualay River. We did not examine these in detail. Farther along the Naco road, about 1 kilometer from that village, there is a small Spanish colonial ruin located in dense bush about 20 meters north of the road. It is the foundation of a small house made of bricks and plaster, and the local people have tales concerning a magical cross of gold that was once found here. As already stated, the ruins of Naco extend for about 1 kilometer up the Naco River, and there are said to be numerous mounds across the river from the modern town. We visited the site of Quebrada Tostada, about two leagues upstream from Naco in a hanging valley some 400 feet above El Salto, the wild and beautiful falls of the Naco River. The main site at Quebrada Tostada includes 4 or 5 acres of pine- and thorn-covered land. Low stone and earth mounds are scattered over this area, and we found a few sherds of coarse brown pottery. Local tradition says that "the King", i. e., Olid, fled to El Salto after he was wounded. We cut our way down the steep, rough gorge to the falls but found no signs of any settlement there. Our guide, Don Santiago Nolasco, said that there were many low mounds scattered over the hills and mountain valleys in the general vicinity of Quebrada Tostada, but he knew of no nearby site comparable in size to the ruins at Naco.

There is another important site in this general vicinity which we had hoped to visit. This is the Bell Cave, which Blackeston (1910) located near the headwaters of a small stream flowing into the Chamelecon River, about 25 miles from the ruins of Naco. Blackeston obtained a considerable number of copper bells and a few other unusual artifacts at this site. We were told by Sr. Roque Hernandez of San Pedro Sula that the site was not yet exhausted. Just before we left Manacal, Sr. Juan Antonio Sarmiento of San Antonio Mahada offered to guide us to the cave which he said was near his home.

Unfortunately, we were unable to make the trip. It would be very important to learn what types of pottery, if any, occur in association with these copper bells. Spinden (1925, p. 544) has suggested that the cache formed part of a Toltec trader's outfit.

ULUA AND COMAYAGUA RIVERS

Our most extensive excavations on the Ulua proper were at Las Flores Bolsa and at Playa de los Muertos. In addition, ceramic samples were obtained at various river bank and mound sites between Naranjo Chino and the mouth of the Comayagua (see map, fig. 5). Our investigations were for the most part confined to the eastern bank of the Ulua. In a region as rich in sites as is the Ulua, it seemed better to confine our efforts to a few promising places rather than attempt too wide a survey. The depths at which cultural layers occur necessitated moving dirt on a very large scale for even a reasonable stratigraphic sample. On the Comayagua River, near Santa Rita, we made excavations similar to those at Las Flores Bolsa and at Playa de los Muertos.

LAS FLORES BOLSA

Las Flores Bolsa is located on the east bank of the Ulua River just south of the division line between the Las Flores and Naranjo Chino banana plantations. This was the farthest down-river site excavated by the expedition (see map, fig. 5). We worked here from January 20 to February 20, 1936. The site was chosen because of the fact that examination of the steep river bank from a dugout canoe revealed several human skeletons one above the other at this place. We therefore hoped for some sort of stratification. This was also the exact place where O. P. Swofford found a deformed skull with filed and inlaid teeth and with a jade bead in its mouth. This skull has been described as that of a Maya chieftain from Santa Ana (see Blom, Grosjean, and Cummins, 1933). It should be noted that the Las Flores site is actually a considerable distance downstream from Santa Ana (see map, fig. 5). In addition to fragmentary human bones there was a considerable amount of broken pottery projecting from the bank and on the small talus at the water's edge.

We made two deep stratigraphic cuts paralleling the bank and extending down to the water line. At the time of our work the almost vertical river bank was 5.25 meters in height. Excavation 1 was approximately 10 meters long by 4 meters wide. The top 2 meters was a recent sand and silt. Cultural debris, mainly broken pottery,

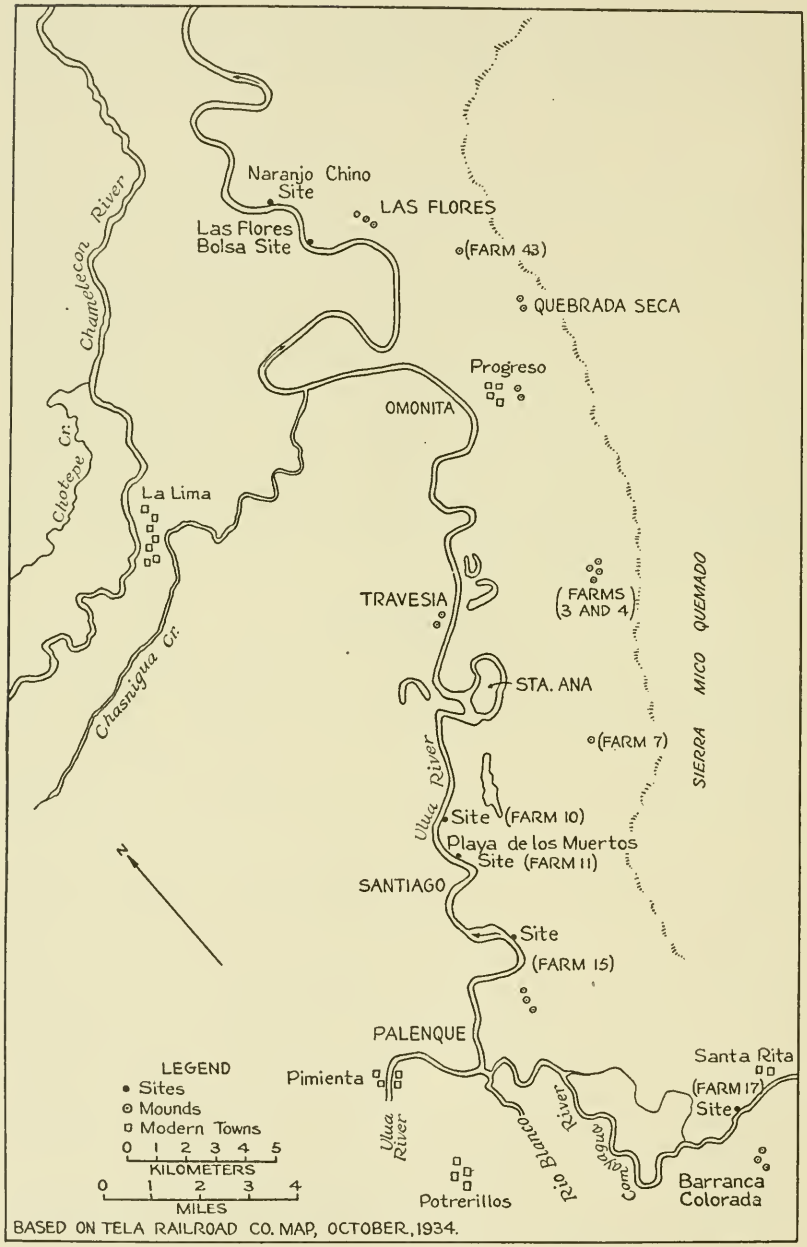

FIG. 5.—Map of the lower Ulua and Chamelecon Rivers.

occurred in the heavy clay below this for 2.25 meters; below this was a sterile light clay loam extending to and below the water level. From the point where we struck the first artifact (at a depth of 2 meters), the soil was stripped off in successive layers each 25 centimeters thick, the first one being designated as P 1 (i. e., pottery level 1) and so on through the occupation level. In all, 13 burials were encountered in this excavation, 10 extended (P 5-9) and 3 bundle burials (P 4-6). The skeletons were in crumbly condition, and the skulls were badly distorted by the pressure of the earth. Only two complete skulls could be saved. Grave gifts were sparse, no complete pots occurring with any of the burials. One bundle burial had 2 clay spindle whorls (top of P 4), and another bundle burial (P 6) had 1 copper fishhook, 16 obsidian flake knives with needle sharp points, and a broken cooking pot containing bird bones. Layers of small adobe bricks and small baked clay basins near certain burials were the main structural features encountered. Broken pottery was quite abundant in this excavation, coming from 10 levels. The types and sequence represented will be discussed in the final report.

Excavation 2 was 16 meters east of excavation 1. It was roughly 5 meters long, 4 meters wide, and 5.40 meters deep in the deepest portion. It contained only one extended skeleton (P 3). From the surface, mixed sand and silt extended down a little less than 2 meters; here the soil changed to a light clay. This layer of light clay, without artifacts, extended down slightly more than 1 meter. Beneath this was a dark, heavy clay containing artifacts. Artifacts occurred throughout 7 levels or 1.75 meters. The cultural deposit sloped down toward the south (i. e., toward the river) so that it extended to the top of P 8 there, whereas on the north side of the excavation it terminated on top of P 4. A living level occurred in P 3 and it is the termination of this which sloped down to P 8 on the river side suggesting a refuse heap. In absolute level, P 1 in excavation 2 corresponds to P 4 in excavation 1. Obviously, the deposition of refuse at this site had been little disturbed by burials. On the other hand, the occurrence of only three levels on the north side with what appears to be a dump heap (correlated with level P 3) on the south suggests that the deposit represented a relatively uniform period of no very great duration. A bed of coarse sand occurred at a depth of 4.25 meters and below this was a light clay loam extending to and below the water level. Except for the sloping dump on the south edge, this stratum was devoid of artifacts.

The various ceramic and artifact types from excavation 2 will be briefly discussed and any obvious stratigraphic changes noted.

Pottery predominates tremendously over any other form of artifact, and plain or domestic wares are much more abundant than decorated wares. In all layers at this site the pottery shows the effects of water action, and the surfaces of many sherds are eroded. There is, however, no observable indication of re-deposition. The majority of sherds from all levels are of unslipped, undecorated wares ranging in color from a smoked or burned black, through brick red or brown to light buff. Sizes are highly variable. Pots with constricted and medium flaring lips are common, as are direct rimmed bowls. Vertical strap and solid round handles are most abundant. Many of these, from all levels, have a knob, filleting, or a crude monkey head on the bend. Bottoms are flat, rounded, dimpled, and annular, the first three types being most abundant. A few plain, hollow, conical feet occur. In P 6 and 7, large, thick, highly polished sherds also occur. Since grit tempering seems practically universal in the Ulua-Yojoa region, it may be taken for granted unless variants are mentioned. Domestic (that is coarse or household) ware with painted decoration is rare at this site. It occurs sparsely in P 3 and 4 where large vessels with high flaring necks are decorated with rayed circles, cross-hatches, or lines of dull red or brown paint applied in a splotchy fashion. Plain incised ware is rare but occurs in P 4 and 5 where necks are decorated with delicate, wavy, comblike patterns forming both vertical and horizontal patterns.

With the wares which are both painted and incised we pass out of the strictly utilitarian class and find several intergrading types. A striking Las Flores type occurs in levels P 3-5 (pl. 5, *a, b, c, d, e*). These sherds are from thick-walled, vertical vases or bowls with high vertical necks, having a polished red slip, a band of black geometric designs below the lip and another band of incised design below this (compare Strong, 1935, pl. 18, fig. 1, *b, c, e,* for similar Bay Island types). Another striking and distinctive ware, which occurs commonly at Santa Rita (farm 17) (pl. 7, *a-d*) and rarely at Lake Yojoa (pl. 14, *d*), we have here called the Bold Geometric, monkey-handled type. It is very similar if not identical with Bay Island Polychrome II ware figured elsewhere (Strong, 1935, fig. 11). This is found in all levels at excavation 2 but undergoes some change in the two bottom levels. The typical vessel is large, with an orange slip and intricate black and red geometric designs around the neck, the body, and on the handles. The neck design is often of the interlocking textile type (compare pl. 5, *c,* and Strong, 1934a, fig. 54, and 1935, fig.11), and the handle at the bend usually has a monkey head in relief with modeled or punctate features. At Las Flores, excavation 2, numerous

sherds of this type have incised as well as painted designs around the neck. The more or less realistic birds and animals occurring on vessels of this type from the lower levels at Santa Rita (farm 17) (pl. 7, *b-d*) are lacking at Las Flores. In levels P 6-7, vessels of this type have lower necks, irregular handles, and incised as well as painted designs.

Polychrome sherds from thin-walled, vertical vases of so-called Mayoid type occur in all levels in excavation 2. The majority have florid, conventionalized, all-over designs in red, black, white or purple on buff, orange, black, or white slips (pl. 5, *f, g, h, i, j, k, l, m*).

The majority of designs are elaborated and extremely conventionalized reptilian, animal, mask, or anthropomorphic forms. They often cover the entire surface of the vessel and are difficult or impossible to reconstruct in their entirety from sherds. Crude skeuomorphic glyph bands occur from P 5-7, as do elaborately modeled projecting monkey or animal head lugs in the same levels (pl. 5, *f, g*). In some cases the designs are outlined with incisions. In the upper levels several sherds with red and purple spots occur (pl. 5, *j*). Bases are flat, dimpled or annular, and hollow cylindrical as well as solid, thin, rectangular, tripod legs occur in all levels. None of the isolated and graceful processional or "dancing" figures occur in excavation 2, although a few sherds with this type of decoration were found in the deepest levels of excavation 1.

In addition to polychrome, straight-walled vases, a number of low bowls or small jars have similar types of designs. In P 1-2 occur polished red or orange sherds. In P 3 there are fragments of about six small jars with solid rectangular, tripod feet and eroded black and red designs. From P 4 to P 7, small tripod jars and low bowls with an orange slip, and red and black conventional or crudely realistic designs are common. These are in the Mayoid rather than the Bold Geometric tradition, though an occasional blending between these major styles occurs. In some instances incision is used to outline painted designs. In P 7 was found an unusual, restorable bowl of thin, polished ware, with an orange slip, and conventional, black and red, monkey and rosette designs outlined with incisions, a dimple base, and a low "vestigial" spout to one side of the direct rim (pl. 6, *b*). Three similar low "vestigial" spouts occurred in P 2-3 as well; hence they cannot be regarded as strictly early at Las Flores.

From P 5-7 came a few fragments of Mayoid sculptured pottery. A restorable tripod vessel of this type is painted all over with an orange wash, except for the carved panel of elaborate Mayoid faces which apparently had no slip (pl. 6, *d*). A tiny vessel with a similar

face panel is brown with no slip. It has an annular base and in shape rather suggests certain of the Ulua marble bowl types, though the sculptured design is Mayoid. A third fragment is the rounded bottom of a bowl with intricate Mayoid design in high but rounded relief. The slip was originally red but has disappeared except between the raised designs, and glittering micaceous tempering material shows on the surface. If it were not for Lothrop's statement (1936a, p. 142) that this mold-made appearance is due to delicate carving and the obscuring effect of the slip, one would be inclined to regard these as stamped or molded rather than carved. The type will repay much more detailed analysis than is possible here. From P 5 and 6 come three small restorable pots of the imitation Ulua marble bowl type (pl. 6, *e, f*). There are a few other sherds of this type. No slip is visible on these pieces, though all are considerably eroded. The association of Mayoid sculptured ware and imitation Ulua marble bowl pieces in the same levels may very well be significant.

Incensario fragments occur in every level except P 1 and P 7. All seem to be of the usual perforated frying pan type with hollow, round handles. They lack painted decoration and range from light buff to brown in color. Fragments from P 2 and P 6 are very thin and delicate, but a fragment from P 3 is thick and crude. Candelarios, or small incense burners, occur in P 3 and P 5. All are of the unslipped, single-hole type. That from P 3 is undecorated, whereas the two fragments from P 5 have crude linear incision and punctate ornamentation. Cassava-grinders, or round, handled, disks of coarse pottery, with one surface ridged with cross-hatched incisions like a grater, occur from P 3 to P 6. They are most numerous in P 3. Spindle whorls occurred only once, with burial A 1 in level P 4. Of the three, two were plain and one had neatly incised decorations.

Figurines and whistles occur in practically all levels. They show little change in types from top to bottom. Solid, mold-made figurines of Mayoid type (like fig. 7, *s*) occur in P 2, 5, and 6. A portion of a pottery figurine mold was found in P 5. Modeled figures of thin, polished, brown pottery occur from P 2 to P 7. Some of these were originally rather pretentious (pl. 6, *a*), but nearly all are very fragmentary and their original form often cannot be determined. Besides the human figurines and larger hollow statues, both solid and hollow animal and bird heads occur in all levels. Many of these were probably from whistles (like fig. 7, *a, c, e*). Similarly, many of the human figures once formed parts of whistles. Strange bulbous animal forms occur from P 2 to P 7. Some of these were whistles, others were not. A particularly interesting whistle from P 2 is in the form of a realistic

frog with a small one on its back (compare Gordon, 1898, pl. 9, *i*, *j*). Pottery stamps likewise occur from top to bottom. From P 1 comes a round, stemmed stamp with a neat monkey design; from P 5 a rectangular, stemmed stamp with a squirrel design and a butterfly-shaped stamp with two crude faces; from P 6 an elaborate froglike stamp with small circles for designs, and, from P 7 a rectangular stamp with a geometric design.

Compared to the amount of pottery recovered from this excavation, the total list of other artifacts is pitifully small. P 1 yielded 1 broken T-shaped drill of obsidian; P 2, 30 fragments of obsidian flake knives, 1 crude obsidian drill, 2 polished pebbles, 1 piece of crudely flaked quartzite; P 3, 2 crudely chipped stones, 1 polished pebble, 2 pieces of baked clay with wattle and daub impressions; P 4, 1 lump of clay; P 5, 6 fragments of obsidian knives; P 6, 1 obsidian knife fragment; 2 quartzite stones, 1 smoothed piece of baked clay, 1 large alligator (?) bone with 2 perforations, 1 tapering, cylindrical brick of baked clay; and P 7, the butt end of a small celt of hard green stone. This slim list clearly indicates what a tremendous proportion of the ancient material culture was perishable. Were it not for the advanced and abundant ceramic remains in prehistoric Ulua sites, one might reasonably, but erroneously, conclude that only a very simple prehistoric culture had flourished there.

SANTA RITA (FARM 17)

Excavation work was carried on at this site by Dr. and Mrs. Kidder from the middle of March until the rising water level drove them out of the excavations on May 20, 1936. Work was also going on at Lake Yojoa, but all the other members of the expedition spent some time in the Santa Rita excavations. The site is located on the Comayagua River just below the little town of Santa Rita (map, fig. 5). It consists of refuse deposits and living levels exposed in the steep banks of a flood channel of the river and is only 200 meters west of the overseer's house on farm 17 of the Tela Railroad Co. The main irrigation canal for the lower valley takes out from the Comayagua just east of the overseer's house. Thanks to the courtesy of the Tela Railroad Co. and of the overseer, Mr. John Thompson, we were able to board comfortably at the farm house and to use its broad porches for sorting specimens.

The physiographic and cultural evidences revealed by the Santa Rita excavations are complex and require far more detailed treatment than is possible here. However, certain very significant correlations

between these factors are already apparent, and these can be briefly outlined. In all, three adjoining excavations were made at this site, the main stratigraphic cut designated as excavation 1; a northern extension of this cut resulting from the discovery toward the close of the work of older and deeper cultural material; and excavation 2 extending through a polychrome refuse heap to the east. For present purposes we will confine our remarks to excavation 1 and, to a lesser extent, to the northern extension. The beginnings of all these cuts can be seen in the illustration (pl. 2, fig. 3).

A cross-section (fig. 6) of the west end of excavation 1 shows the outstanding stratigraphic features. This excavation was originally 5 meters long from east to west, paralleling the cut river bank, and 4.5 meters in width from north to south. Owing to the outward slope of the bank, the bottom of the excavation was 8 meters in breadth (fig. 6). When the May floods made further work impossible, we had reached a depth of 5.20 meters in excavation 1 and 5.40 meters in the northern extension. In size, the northern extension was less than one-third of excavation 1.

The cross-section along the west wall of excavation 1 (fig. 6) shows the various soil layers. The 2 upper meters consist of alternating deposits of dark silt, light silt, and sand. Below this is a thick deposit of dense clay which terminates at a total depth of 3.80 meters in a thin bed of sand or sandy silt (level 8, fig. 6). This sand layer has here a slight dip from the north and thins out near the southern edge. Beneath this layer is a sandy clay (level 9, fig. 6) which, with certain minor changes, extends down to the bottom of our excavation. On the extreme southern edge and in the deepest portion is a deposit of sand and gravel (fig. 6) which ran the length of the excavation and may represent an old stream bed. In the west wall cross-section the sand layer (level 8, fig. 6) seems to dip toward this sand and gravel deposit but, on the east wall cross-section, the sand is much thicker (40 cm) and extends on a level plane to the edge of the bank at a point 1 meter above the lower sand and gravel deposit.

The first potsherds and other cultural detritus occur in the dense clay deposit simultaneously with a layer of river boulders (fig. 6). Throughout this clay deposit polychrome pottery is abundant, as are other cultural manifestations. The polychrome debris is thickest in a definite refuse deposit on the southern edge which dips slightly less than 1 meter below the main clay and pottery-bearing stratum (refuse heap, fig. 6). Debris extends down almost to the low sand and gravel deposit suggesting that it had been dumped over a low bank at the edge of an old water course. The refuse heap here

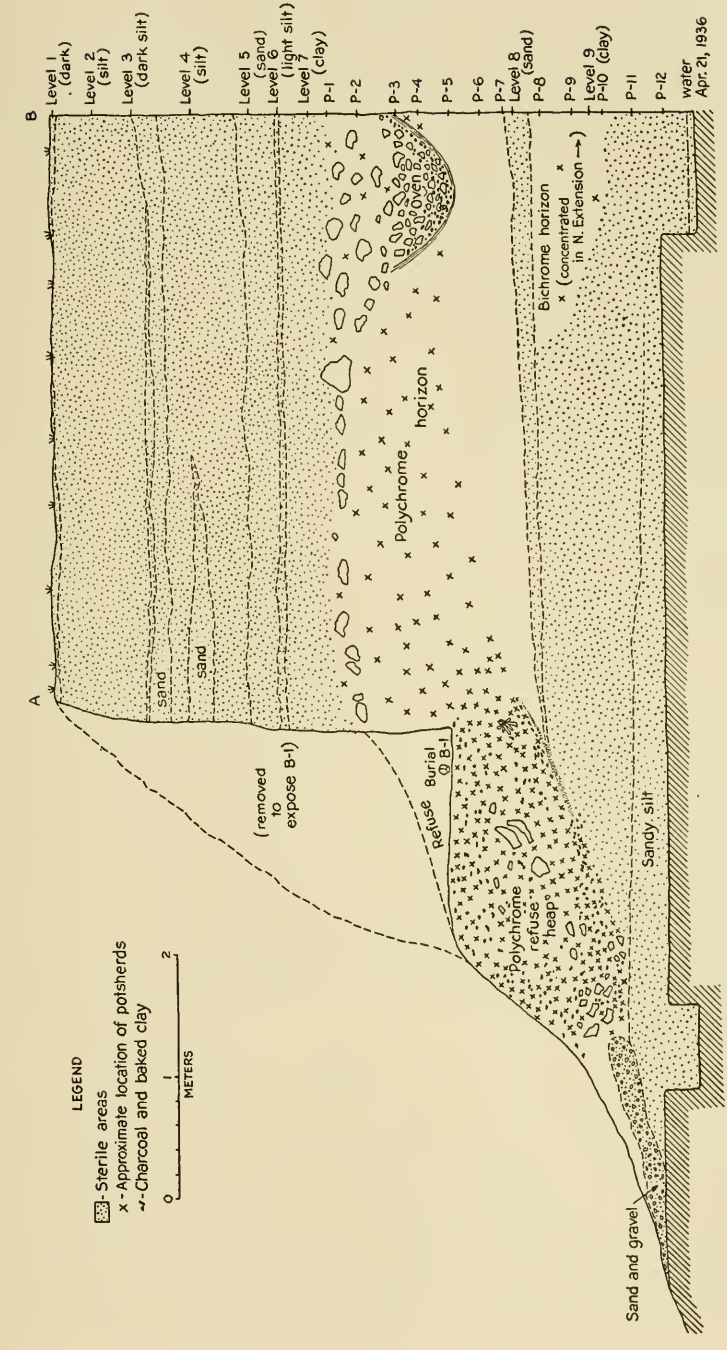

FIG. 6.—West wall of excavation 1, Santa Rita (farm 17).

terminates before the east wall of excavation 1 is reached, but beyond this point another polychrome refuse heap at the same depth occurs and it was in this that we made excavation 2. The sand level (level 8, fig. 6) was sterile of artifacts throughout all of our excavations. In excavation 1, the same was true of the underlying sandy clay (level 9) except on the southern edge where the overlying polychrome refuse material dipped, and at the northern edge where a very few monochrome potsherds were encountered (level 9, fig. 6). These latter, found toward the end of our work, seemed highly significant and for this reason the northern extension was made extending north from the northwest corner of excavation 1. Soil layers and pottery deposits were generally similar in excavation 1 and in the northern extension. However, in the northern extension more abundant potsherds differing from the polychrome type were found in the sandy clay (level 9, fig. 6) beneath the sterile sand stratum (level 8). This will be discussed subsequently.

Cultural features, other than abundant potsherds and rare artifacts, were not marked in any of the excavations. River boulders occurred throughout the upper portions of the main clay stratum (level 7, fig. 6) in all. What appears to have been a roasting pit or oven is outlined in figure 6. Small clay-lined fire pits and small irregular clay bricks also occurred. Eight burials, all in bad condition, were encountered, four in excavation 1 and four in the northern extension. In all cases these occurred either in the clay stratum (level 1) containing polychrome pottery or just below it and clearly intrusive into the sand. All were extremely friable and crumbled on exposure to the air. One of the burials in excavation 1 was extended and had notched upper incisors, three were flexed, only one had any grave gift (a ground stone knife). In the northern extension, one burial consisted merely of an immature skull, jaw, and humerus; one was extended; one was flexed; and the last was the extended skeleton of a new-born child under a large, plain red, two-handled bowl. Excavation 2 yielded no burials.

The succession of ceramic and artifact types from excavation 1 and the northern extension will be briefly outlined. This site was richer in polychrome pottery than any other we dug on the Ulua, but it should be remembered that even here there was much more plain than painted ware. The sherds from this site show little erosion through direct water action and the majority of the painted pieces are fresh and bright. We will discuss the material according to four major stratigraphic levels, A (P 1-3, see fig. 6), B (P 4-6), C (P 7-9), and D (P 10-12). As indicated on the diagram (fig. 6) levels

A include the upper portion of the clay occupation stratum. The southern face of the cut, including the uppermost portion of the refuse heap, had been removed to expose skeleton B 1 prior to completing the diagram. Levels B include the lower portion of the clay occupation level and the upper portion of the southern dump heap. Levels C, the very bottom of the clay occupation level and the middle of the dump heap. Levels D include the lowest portion of the dump. With the exception of this southern polychrome dump heap, most of the remainder of levels C, and all of levels D, were devoid of artifacts except in the extreme northern portion where a very few bichrome sherds were encountered beneath the sand stratum (level 8, fig. 6). These will be discussed separately.

Levels A contained a large amount of plain cooking ware of a red brown to blackish gray color. The vessels were fairly large, including direct bowls and pots with flaring necks and vertical handles. These handles are either round or flat in cross-section and, in a few cases, have a monkey head lug on the bend. Rounded, flat and dimpled bases and a few conical and round hollow feet occur. There are also some highly polished thin sherds tan or buff in color. The upper portion of B contained the same types but in the lower portions crudely painted ware superseded the plain cooking ware. In C and D plain cooking ware was very scarce except for a few very thick gray and brown sherds and some vertical strap handles. A portion of a thick, plain tray with horizontal handles occurs in C, and a plain annular base in D. Similar cooking ware but decorated with blotchy red or brown designs on neck and body occurs in A. These designs are usually rayed circles, criss-cross lines, and more or less irregular blotches. In B this type supersedes the plain ware in the lower levels. A squat, swollen pot form with flaring neck and vertical handles is characteristic. These are better made than in A, and the dull red, criss-cross line decoration on a lighter background sometimes suggests negative painting. This type also predominates in both C and D where undecorated domestic wares are rare. Plain incised ware is lacking in all levels. From both A and B levels came a few similar pot fragments in which the neck of the vessel is also incised with delicate, wavy, vertical lines and where the handle is replaced by small tripartite adornos. This variant of the swollen, simply-painted pot is more numerous in the lower levels, i. e., C and D. In D there is some blending of this type with the Bold Geometric, monkey-handled ware. Three sherds from thick-walled, vertical vases have a slip and painted designs with a band of heavily incised decoration around the upper

body. They all come from A and closely resemble the more numerous representatives of the type from Las Flores Bolsa (pl. 5, *a-e*).

The Bold Geometric polychrome type occurs in all of the lower major levels at farm 17. In A it occurs only in the lower third (i. e., level P 3, fig. 6). The vessels of the characteristic swollen olla type are medium rather than large in size. Textile and geometric designs are common (figs. 8, 9, compare Strong, 1934a, fig. 54, p. 46), but conventional birds and animals are lacking. In B similar designs occur in the upper two-thirds, and a few animal and bird designs occur in the lower third. In C and D animalistic designs (pl. 7, *b-d*, and fig. 10) are common, but geometric and numerous textile motifs also occur. The Bold Geometric vessels of the lower levels appear to have been slightly larger and better finished than those from the upper levels. Characteristic cursive, conventionalized bird, feline, bat, and reptile designs from the lower levels are illustrated (pl. 7, *b-d*, and fig. 10) and their association with geometric motifs indicated. In D a few Bold Geometric type vessels have incised patterns on the neck, similar to the squat, painted and incised domestic ware previously described. Bold Geometric monkey-handled bowls are numerous at this site and, with the straight-walled Mayoid vases, constitute one of the two most distinctive ceramic types.

Straight-walled, vertical vases of Mayoid type are represented by sherds from all four major levels in excavation 1. In A the predominant, painted decorations are complex over-all designs on white, black, orange, or yellow backgrounds. Designs are in red, black, white, purple, and, in one case, blue.

As at Las Flores Bolsa (pl. 5, *f-m*), the majority of the design motifs from A are elaborately conventionalized monster animal or human forms. One large fragment has a conventionalized jaguar with a row of conventionalized human heads above. An elaborately modeled and painted monkey-head lug occurs, as do hollow cylindrical feet and two annular bases. In B similar types occur, with the addition of textile designs and the common occurrence of bands of conventionalized heads of several types (compare upper panel, pl. 8, *a*, *b*, and fig. 13). Squat, elaborated human or deity figures (pl. 8, *d*, and fig. 13) occur in this horizon and one of these is outlined with carved lines. An elaborate modeled monkey-head lug and a black monkey in low relief on a painted bowl came from levels B. One sherd with blue paint used as a design was noted.

In C, panels containing paired "dancing figures" occur for the first time. This unique design motif, on beautifully polished and painted pottery, has been noted from northern Honduras to Salvador.

Lehmann (1910, p. 740 and illus. 8, p. 736) believes that copulation, not dancing, is indicated by this design and supports his view by a drawing of a Salvadorean example. To us, the latter seems no more definite than do the Ulua examples here illustrated (pl. 8, *a, b,* and fig. 14). In the light of Palacio's information regarding the ceremonial importance of the mutilation of male genitalia among Pipil and Lenca, we rather incline to connect this widespread design with phallic rather than procreative rites. Undoubtedly, the correlation of outer dancing figures with a unique design inside such vessels (fig. 14) is significant. This peculiar, and always slightly variable, inner design suggests some sort of record. It occurs inside "dancing figure" and certain processional vases and bowls from the Ulua River, Comayagua River, and Lake Yojoa. We suspect it also occurs inside Salvadorean vessels. This is an extremely interesting problem which at this time may only be mentioned in passing. Associated with the "dancers" are sherds decorated with isolated, processional figures. Like the "dancers", these are usually well proportioned and graceful. The manner in which they are fitted into the simpler but more beautiful panels and design areas contrasts markedly with the florid, over-all designs of the upper levels. With these more realistic figures occur a variety of conventionalized human head designs (pl. 8, *a, b*). Similarly, the squat, conventionalized deity or priest figures (pl. 8, *d,* and fig. 13) also occur in association with the well-proportioned "dancers" and processional figures. Flat bases are most common in this level, and tripod feet are usually solid and rectangular or ovoid, though a few cylindrical feet occur. Lugs and annular bases do not occur in our sample. Levels D are identical with levels C so far as the Mayoid cylindrical vase shapes and designs are concerned. As was true of the Bold Geometric ware there is here also a slight but obvious development from the realistic to the conventional in painted decorations. It is significant, however, that during the time involved in these stylistic changes, neither the basic form of the Mayoid straight-walled vase or the Bold Geometric monkey-handled pot changed in any very marked degree.

Fragments of Mayoid sculptured ware, as well as some examples of carved designs, come from B and C. From levels C there are two fragments from small jars in imitation Ulua marble bowl style (compare pl. 6, *e, f*). Here, as at Las Flores, Mayoid sculptured ware and imitation Ulua marble bowl incised ware are in close association. At Las Flores, excavation 2, these are in the lowest levels; at Santa Rita, excavation 1, in the two middle levels.

FIG. 7.—Hollow figurines, whistles, and "candelario", from the Ulua Polychrome period, Santa Rita (farm 17). (Specimens in National Museum of Honduras at Tegucigalpa.)

Numerous small polychrome jars and vases are represented in excavation 1. Certain of these are Mayoid, others Bold Geometric, and still others suggest blends between the two (compare figs. 11, 12, 15). Any attempt to clearly delineate these two major Ulua polychrome styles, or to demonstrate the exact nature of their blending, would necessitate a far more extensive analysis of design motifs than is possible here. Considered very generally, however, there are certain top-to-bottom variations which seem to be significant. In A, small red bowls with black geometric designs and conventionalized animal or anthropomorphic designs, either outside or inside, occur. Some of these are definitely Mayoid in feeling, having circle, diamond, or feather designs and dimpled bottoms. The majority, however, seem more closely allied to the Bold Geometric type. In C, an orange tone is particularly prevalent and numerous pieces show a rather unique blending of Mayoid and Bold Geometric styles (compare figs. 11, 12, 15). Conventionalized birds, animals, and reptiles occur both outside and inside open bowls (compare the similar bat designs on two vessels from approximately the same levels in excavation 2, where one (fig. 15) has a Mayoid, the other (fig. 10) a Bold Geometric feeling). Both flat and dimpled bottoms occur in C. In D there are numerous small flat-bottomed jars of Mayoid type with processional figures and other elaborate anthropomorphic designs, and open bowls with Bold Geometric designs on the inside. These less clearly pronounced vessel forms, therefore, seem to recapitulate the tendency to change from realistic to geometric decoration observed elsewhere.

A few fragments of polished gray ware came from Levels A, B, and C. The fragments were from small, slightly pear-shaped bowls without legs or handles. One fragmentary vessel had a narrow band of red paint around the inside of the neck. Another interesting feature in levels C is represented by two very definite spouts of red and brown polished ware. They are more similar to those from the deep layers at Playa de los Muertos (pls. 10, 11) than to the "vestigial" spouts from Las Flores (pl. 6, *b*). Strange to say, no Plumbate ware occurred in any of our excavations.

At Santa Rita there are two other distinctive polychrome vessel types, both of which were lacking in excavation 2 at Las Flores. One of these, a flat plate on high tripod legs (pl. 8, *e, f*), may be called a tripod plate. The other, with somewhat higher walls, and either low (fig. 8) or high (compare pl. 12, *f*) tripod feet, may be termed a tripod dish. In excavation 1, tripod dish fragments are lacking in A, fairly abundant in B, still more numerous in C, but rare in D. They characteristically have more or less intricate and geometric, red and

black designs on a light red or orange back ground (fig. 8 and pl. 7, *e*). An unusual vessel of this type from excavation 2, which has loop handles and an auxiliary annular base, is also figured (fig. 9). In general, at Santa Rita, these vessels are in the Bold Geometric style, though elsewhere (as at Lake Yojoa, pl. 12, *f*) they may be more Mayoid. Tripod plate fragments or restorable pieces (pl. 8, *e, f*) are rare in levels A and B, fairly numerous in C, and rather abundant in D. Characteristically, the tripod legs are high with vertical slits and contain rattles. The plates are heavy and flat with slightly inward-dipping rims (pl. 8, *f*). The designs are often

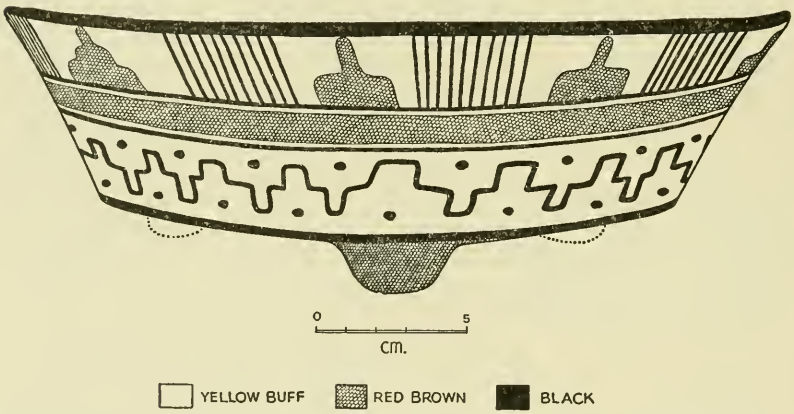

FIG. 8.—Ulua Polychrome, Bold Geometric tripod dish, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

intricate, conventionalized serpents (pl. 8, *e*) in black and dark red on a lighter red background. Although very involved, such designs are often very irregular in execution. The style seems rather unique but is more "Mayoid" than Bold Geometric in feeling.

No incensario fragments came from levels A in excavation 1. From B are nine unpainted incensario fragments, all of the perforated "frying pan" type. The handles are tubular, except one that is rather crude and solid. Two handles end in clutching triangular claws and one has slits down the side. The same number of fragments came from levels C, but half are painted with dull red and brown stripes or simple geometric polychrome designs. Two fragments came from D, one plain handle has a horizontal slit and another is painted with red and black. There is some indication here that painted incensarios may be relatively earlier than unpainted ones.

Candelarios are lacking in levels A. In B two were recovered, one decorated by an incised bird (compare fig. 7, *j*) and one with incised lines. Both are of the single-hole variety. Levels C yielded one two-hole candelario decorated with a delicate incised pattern. Six candelario fragments came from D, one plain two-hole type and five single-hole specimens. One of the latter was decorated with a nicely executed textile design unit. There were no fragmentary cassava-grinders from levels A, but B yielded one, C five, and D seven. One of the latter is almost restorable. Like the others, it was of coarse gray pottery, round, with a broken strap handle on the rear and a series

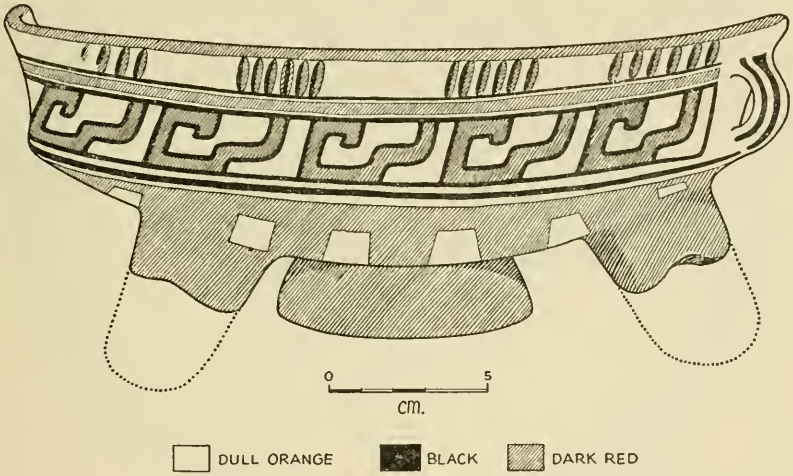

FIG. 9.—Unusual Ulua Polychrome, Bold Geometric dish, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

of very rough-edged incisions or graters on the face. Only one plain, biconical, pottery spindle whorl was recovered. It came from levels D.

Figurines and whistle fragments were, rather strangely, completely lacking in levels A and D, at excavation 1, though they were fairly abundant in the two middle horizons, B and C. Excavation 2 yielded the finest assortment of such modeled pieces, and certain of these, now in the National Museum of Honduras, are reproduced here from our field sketches and photographs (fig. 7). All of these came from the polychrome horizon between pottery levels 8 and 11 in excavation 2, but, in general, are similar to the fragmentary pieces from levels B and C in excavation 1. The latter types show no obvious stratigraphic differences; fragments of large ornate busts and statues of polished brown pottery (like pl. 6, *a*); solid, mold-made figurines of Mayoid

type (like fig. 7, *s*) ; hollow faces with beards or ornate head dresses (like fig. 7, *m*), bulbous human, animal or composite figures (like fig. 7, *h, r*), tubular birds (fig. 7, *e*), howling dogs, (fig. 7, *c*), and

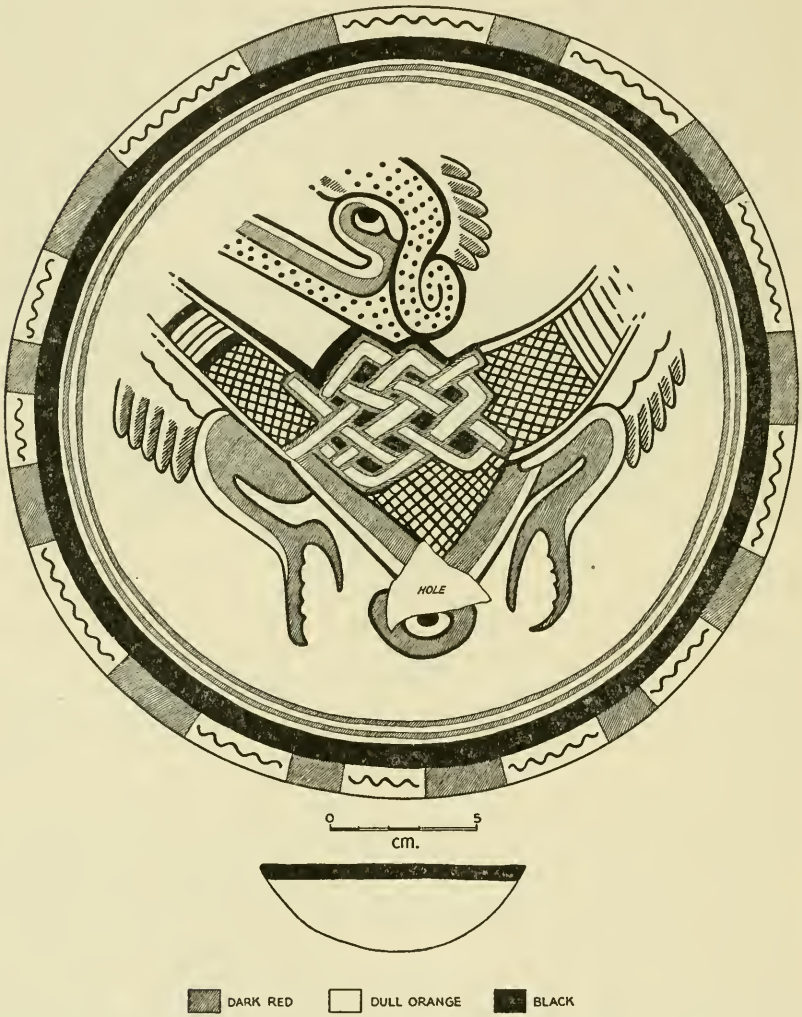

FIG. 10.—Ulua Polychrome, Bold Geometric bowl, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

a variety of squatting animals (like fig. 7, *a, k, p*) all occurred in both horizons. Some of the smaller human figures were once attached to whistles, but many are simply figurines, or ornate hollow statutes whose functions remain conjectural. Only a few exceptional pieces

show any traces of painted decoration. From C came a fragmentary animal with a mouthpiece suggesting a spout. An incensario or pot cover, from P 10-11 in excavation 2, representing a deer similar to certain figures in the Dresden Codex, is remarkable (pl. 8, *c*). At present the distribution of these numerous products of the sculptor's art gives little indication of the lines of their development within the polychrome period on the Ulua. However, comparison with similar types from earlier horizons and a complete typographical analysis will be a large and important task.

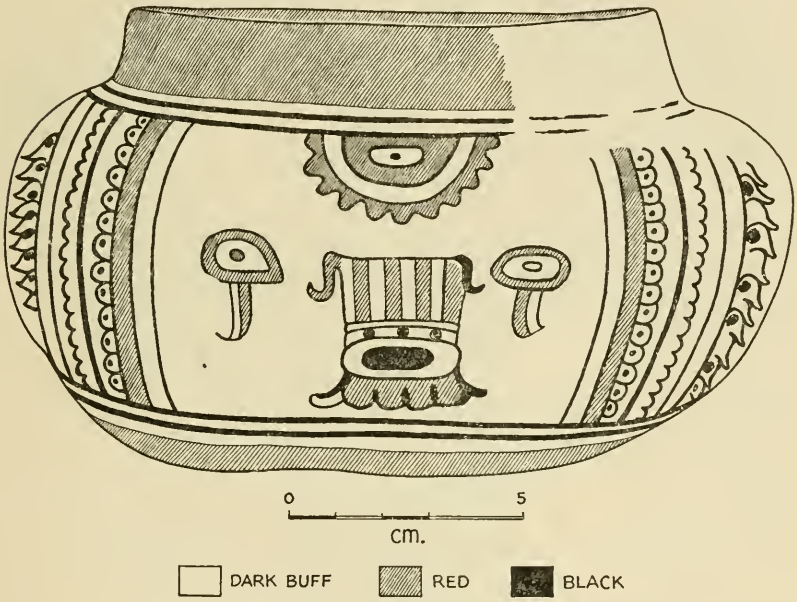

FIG. 11.—Ulua Polychrome bowl, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

Pottery stamps are rare from excavation 1, though they were fairly numerous in excavation 2. In excavation 1, levels A yielded one cylindrical, roller stamp with a neat, squatting monkey design; and one flat, stemmed stamp with a geometric design. Levels B and D yielded no stamps, but levels C yielded one flat stamp with a conventionalized serpent head design.

As at Las Flores Bolsa, the disproportion between the abundant ceramic remains and all other artifact types was enormous in excavation 1, Santa Rita. Levels A produced one large, conical, stone pestle and one obsidian flake knife; levels B, six pieces of ground-

down animal rib-bones and one ground stone knife; levels C two small, polished bone needles, two obsidian flake knife fragments and one ground stone knife; and levels D yielded, aside from ceramics, nothing but one small stone celt.

Soil conditions in the northern extension were practically identical with those in the main portion of excavation 1 (compare fig. 6). The occurrence of four burials in the northern extension has already been noted. As in excavation 1, the polychrome horizon in the north-

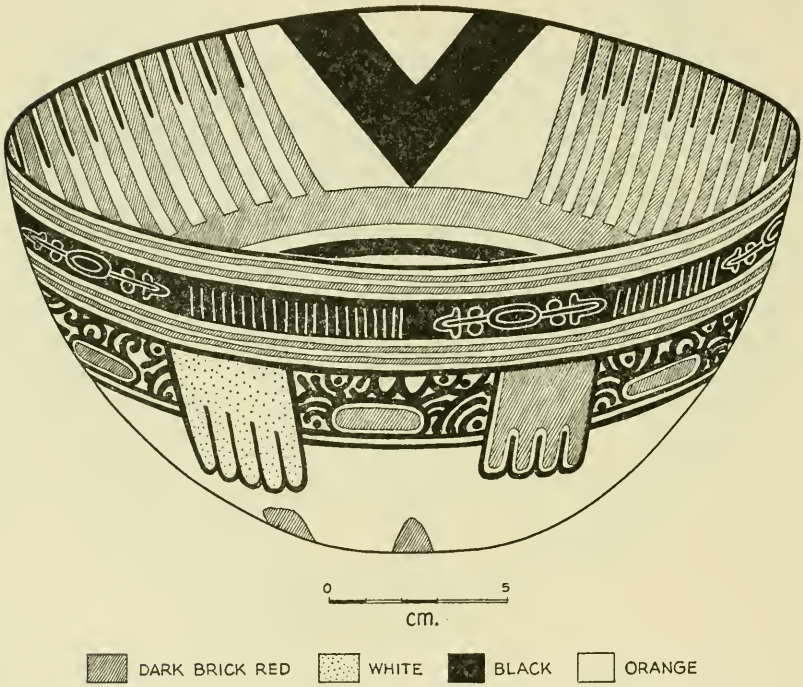

FIG. 12.—Ulua Polychrome bowl, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

ern extension corresponded with the dense clay stratum (level 7, fig. 6) and was marked by a concentration of river boulders in the upper levels. In the northern extension the polychrome horizon (and burials) which were included in pottery levels A and B, terminated abruptly just above the sand layer (level 8, fig. 6). The latter was sterile and averaged 20 centimeters in thickness throughout this area. As in excavation 1 (excepting the polychrome dump heap on the southern border) the polychrome pottery horizon in excavation 2 terminated abruptly on the sterile sand stratum. However, under this

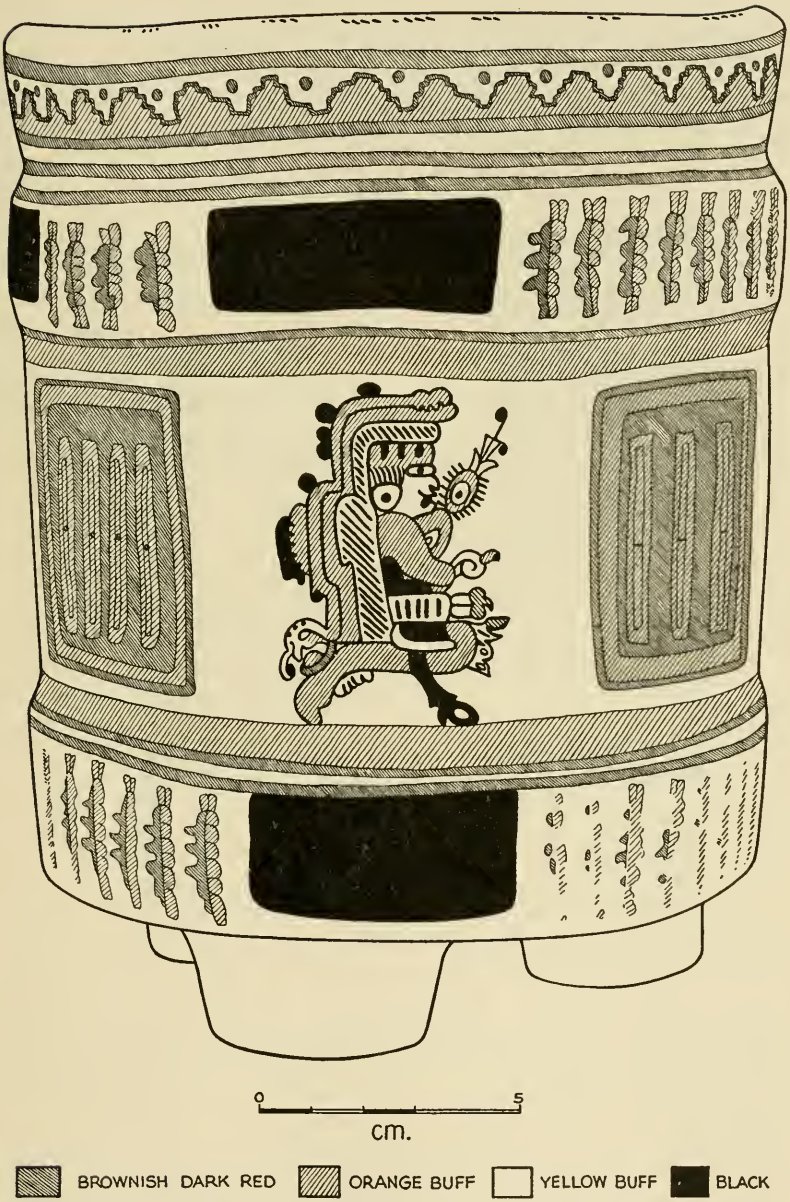

FIG. 13.—Ulua Polychrome, Mayoid vase, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

sand in C (P 7) there occurred a considerable number of potsherds of a different monochrome or bichrome type. These were in a clay stratum and were mainly concentrated in P 7, although they occurred very sparingly in D (down to P 12). Only three sherds came from P 12. This lowest clay stratum was sandier at the bottom of the excavation.

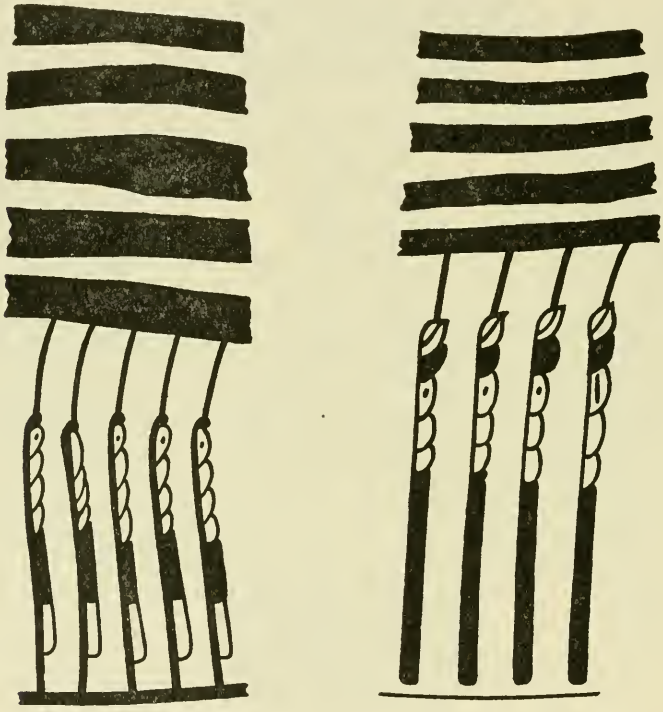

FIG. 14.—Inside design from Ulua Polychrome, Lower Mayoid vases (pl. 8 *a, b*), excavation 1, Santa Rita (farm 17).

Space permits only a very brief analysis of the ceramic sequence in the northern extension. Dividing the 12 pottery levels (P 1-12) as in the main excavation, A (P 1-3) contained considerable amounts of undecorated cooking ware; some fragments of straight-walled Mayoid vases with black slip, florid designs, and solid rectangular legs; a few small Mayoid bowl fragments; a few fragments of Bold Geometric ware; and, finally, several sherds from thick-walled, painted and incised vases (Las Flores type, pl. 5, *a-e*). B (P 4-6) contained numerous sherds from excellent, thin Mayoid vases with an orange slip and well-executed bat and thin-line human designs in

black and red (an excellent example from P 12, just above the sand, is illustrated in pl. 9, *t*). In addition, B contained a number of nondescript polychrome pieces. As in the main excavation, the lowest polychrome types in the northern extension were the best finished and had the most realistic and artistic designs. The sand level below P 12 was barren of artifacts.

Below this sand level (layer 8, fig. 6) potsherds were rather numerous in P 7 and occurred in very small quantities down to P 12 (i. e., through C and D but concentrated in the upper portion of C). All of these sherds are monochrome or bichrome and not a single example

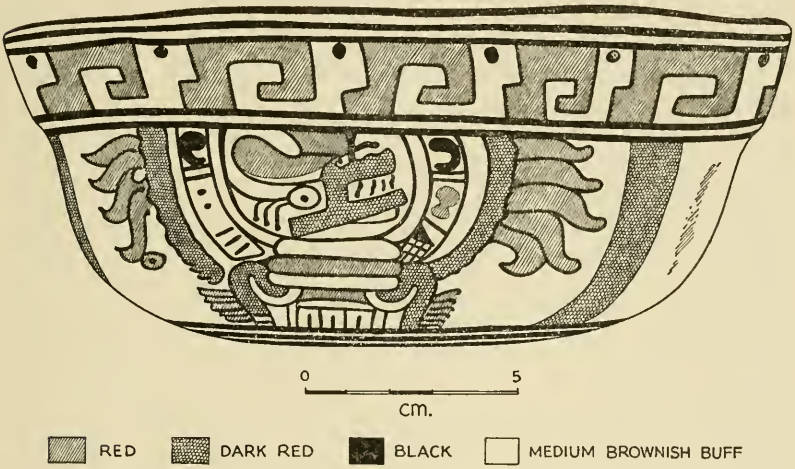

FIG. 15.—Ulua Polychrome bowl, excavation 2, Santa Rita (farm 17). (Specimen in National Museum of Honduras at Tegucigalpa.)

of either Mayoid or Bold Geometric polychrome occurred. The sample is too limited to define the type adequately but is undoubtedly significant as indicating a different and earlier ceramic type, here designated Ulua Bichrome, at this site. The majority of these lower sherds are monochrome ranging from highly polished red and orange ware to more numerous coarse brick red or sooty gray sherds. The highly polished red or orange sherds show examples of flat, heavily incised lips (pl. 9, *i, n*); swollen lips (pl. 9, *f*); flanges below the rim; flat bottoms; and small, solid tripod feet (pl. 9, *aa, bb*). They are from small vessels for the most part. The paste and tempering of these pieces is very fine and the ware is light and hard. A direct rim from a bowl of this type has a light gray polished interior.

A number of the orange sherds (pl. 9, *o, p, q, r, s, u, v-z, aa, bb*) are definitely of Usulatan ware (Lothrop, 1933, p. 50). The faded red

or black linear designs on the bright orange background makes them very hard to distinguish from examples of negative painting since the slip at present appears to form the design, in contrast to the darker red or blackish overlay. Several sherds retain the black color of the original design, whereas in the others this has faded to a brown or even a dull reddish color. One very coarse potsherd, apparently from a flat tripod vessel, has a dull white slip on the inside with broad, criss-cross red lines (pl. 9, *cc*). Aside from the Usulatan type sherds this is the only painted fragment. This is similar to the red-on-white sherds from the old Playa de los Muertos horizon.

Among the heavier, coarser sherds occur examples of low, flaring, swollen lips; direct rims; broad, vertical loop handles, smooth rocker zigzags (pl. 9, *e*), and both fine and coarse incised decoration (pl. 9, *a, c*). At the present stage of preliminary analysis this coarser pottery shows no very striking differences from the monochrome or domestic wares associated with the upper polychrome horizons. The polished orange ware and especially the Usulatan or related painted pieces are unique so far as this site is concerned. Aside from pottery the only other artifacts from these levels are a few fragmentary obsidian flakes (pl. 9, *k, m*) and a heavy, stemmed, pottery stamp with a geometric design (pl. 9, *l*). The stamp comes from P 8. The nature of the deposit below the sand level in the northern extension rather suggests the fringe of a midden whose concentration lay still farther to the north. Unfortunately, it was impossible to follow up this problem at the time, owing to the rapidly rising water level. These subsand layer ceramics at Santa Rita suggest definite affiliations with the oldest horizon at Playa de los Muertos.

PLAYA DE LOS MUERTOS (FARM 11)

This important site is located on the east bank of the Ulua River close to the northwest corner of farm 11 (see map, fig. 5). In this general vicinity Gordon (1898) carried on extensive excavations in 1895 and 1897, and later, in 1929, Mrs. Dorothy Hughes Popenoe (1934; also see Vaillant, 1934) isolated the old Playa de los Muertos culture at this exact spot. For this reason we visited the site on January 18, 1936, the day after establishing our headquarters at Progreso. First impressions regarding the possibility of further work were extremely discouraging. The terriffic flood of the preceding fall had removed most of the point where Mrs. Popenoe worked, as well as the entire island just below it (see map, Popenoe, 1934, p. 81). A small hard-pan or dense clay playa remained, on which we found a few Playa de los Muertos type potsherds. However, we found none

in situ on the adjacent steep banks, nor did we note any traces of burials or of polychrome pottery deposits in the vicinity. It was apparent that, at most, only a tiny remnant of the area worked by Mrs. Popenoe remained at the small playa previously mentioned. This opinion, based on comparison with Mrs. Popenoe's map, was verified by Mr. Roberts, overseer at farm 11, who had assisted Mrs. Popenoe in her work. For this reason we sought other sites, hoping to encounter elsewhere, the older type of Playa de los Muertos material in direct relationship to the polychrome horizons.

By the middle of April 1936 it was apparent that we were not going to find typical old Playa de los Muertos material at any of our other sites, despite the discovery of polychrome ware superimposed on pottery suggesting the Playa de los Muertos culture at Santa Rita (farm 17). For this reason, while work continued at Santa Rita, the senior author returned to the Playa de los Muertos site on April 17.

Subsequent to our first visit to the site, a large levee had been constructed along the river just east of the main site, and on the levee, and in the deep borrow pit or trench, we found numerous fragments of polychrome pottery. This material was concentrated at one place on the west wall of the borrow trench and here we later excavated (excavation 2). This site was only 80 meters southeast of the playa (with the old type sherds on its surface) which marked the eastern boundary of the grave area worked by Mrs. Popenoe. At this latter point close examination of the 4-meter bank behind the playa revealed a few sherds of coarse brown cooking ware and one tiny polychrome fragment *in situ*. Here excavation 1 was commenced.

Excavation 1, which was made on the very top of a point projecting out onto the clay playa, was L-shaped. The main cut was 2 meters wide and 6 meters from west to east. To facilitate handling the dirt from the deep cut, a north to south extension 4 meters long by $1\frac{1}{2}$ meters wide and slightly more than 2 meters deep was made from the east end of the main cut south to a steep bank on that side. The north wall of excavation 1 is illustrated (fig. 16; also see Strong, 1937, fig. 79), and the position of the shallow north to south L extension is indicated by the shelf under skeleton 1. The main east to west trench attained a maximum depth of 6 meters. The soil layers from top to bottom are well indicated in the diagram (fig. 16). Potsherds were first encountered at a depth of 80 centimeters at the west end and 1.30 meters at the east end. Scattered sherds extended through this layer of gray clay (P 1, fig. 16) to a depth of 1.8 meters, where the sterile yellow clay began. The majority of these sherds

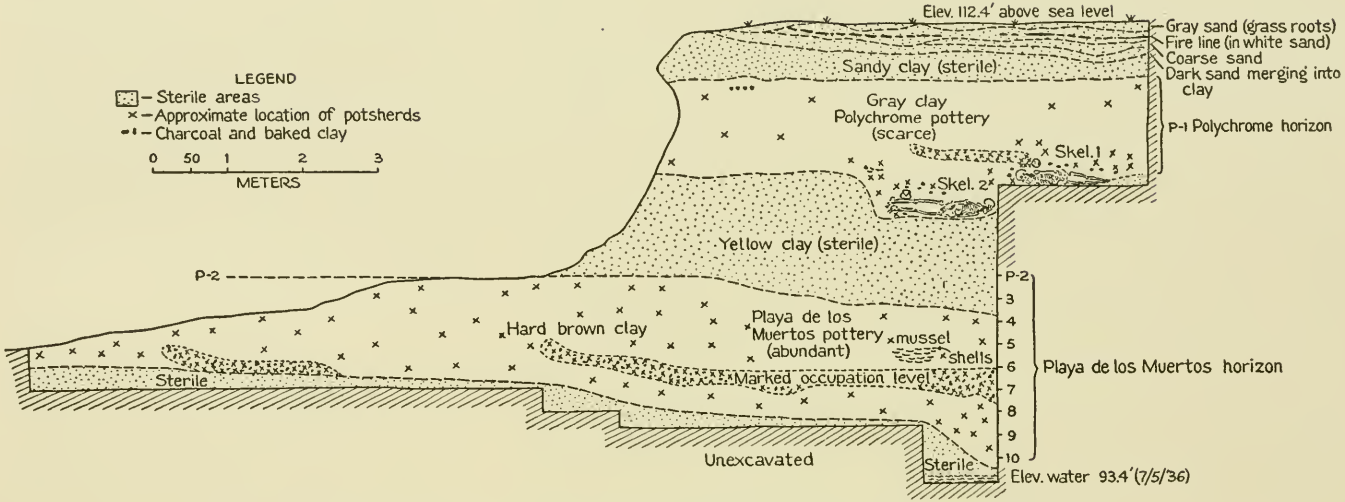

FIG. 16.—North wall of excavation 1, showing stratification, Playa de los Muertos (farm 11).

were from monochrome red to gray cooking ware, but enough polychrome sherds were found to establish the horizon as definitely belonging to the polychrome period. Sherds were too scarce, however, to make 30-centimeter levels of value, so that the entire stratum was designated P 1. Two extended skeletons occurred at the bottom of this horizon (fig. 16). Each was accompanied by a broken monochrome cooking pot, but definite polychrome sherds were also found next to each skeleton. Skeleton 1 had, in addition, an obsidian flake knife and a perforated pottery labret or ear plug. Below these skeletons we ran into a layer of yellow clay which was absolutely sterile. At a depth of 3.35 meters more sherds of a different type (Playa de los Muertos culture) were encountered coincident with our passing from the yellow clay into a hard brown clay. Owing to their abundance, it was now possible to work by 30-centimeter levels, thus P 2 (pottery level 2) began at this point. The Playa de los Muertos horizon (P 2-10, fig. 16) sloped down from west to east. As indicated in the cross-section (fig. 16) at least one and possibly two definite occupation or house floor levels, marked by black soil, concentrated charcoal, animal bones, sherds, etc., and a small deposit of mussel shells, were encountered. Owing to the depth of the deposit and to lack of time, it was impossible to work out these living levels beyond the walls of the excavation. No post holes were encountered, but baked clay with wattle and daub impressions was fairly abundant. In the west end sterile soil underlay P 6, but in the east end the occupation strata dipped to the top of P 10, terminating just above the then level of the river (fig. 16).

It is obvious, both from the direct superimposition of the two ceramic horizons separated by a barren stratum (fig. 16) and from the markedly different ceramic content of each, that two distinct cultures are represented at this site. Of these, the lower or Playa de los Muertos horizon is the older. Since this horizon extended well to the west prior to the recent flood and since the main concentration of the upper or polychrome horizon occurred on a similar level 80 meters to the southeast (excavation 2), it would appear probable that only the edges of the two occupation levels overlap at excavation 1 (fig. 16). For the purpose of obtaining direct stratification, we were therefore extremely fortunate in choosing the place for our main trench.

Excavation 2, in the west wall of the levee borrow-pit, was small but yielded a considerable amount of polychrome pottery. The excavation was 5 meters from north to south and slightly less from east to west. The first potsherd was encountered at a depth of 70 centimeters and the lowest at 2.40 meters. No noticeable changes

in polychrome pottery types were observable in this deposit, and 30-centimeter levels were not recorded. Abundant polychrome sherds were scattered throughout a gray to brown clay stratum. The pottery level contained concentrations of ash, charcoal, and sherds, one lenticular hearth, numerous small boulders, and abundant sherds. Below the pottery level an absolutely sterile, brown sandy clay was encountered. The maximum depth of this excavation was 3 meters. In absolute level the polychrome horizon at excavation 2 compared closely with the upper or polychrome horizon (P 1, fig. 16) at excavation 1.

Excavation 3 was made on the northern side of the playa in the same dense brown clay level where old Playa de los Muertos material occurred in the main trench. At excavation 3, this level was on the surface, owing to the removal of the top soil by the river. An excavation 6 meters long (from northeast to southwest) and 1.5 meters wide was carried down to a depth of about 1 meter. No sherds or other artifacts were encountered below the surface and, as it was apparent that we were outside the area of ancient occupation, work was stopped.

Before describing the artifact content of the various levels at excavation 1, it will be well to discuss briefly the material from excavation 2. All the ceramics (other artifacts were extremely rare) from excavation 2 correspond with those from the A (P 1), the upper or polychrome level at excavation 1. These two horizons are actually on the same level, and since material was scarce in A (excavation 1) and abundant in excavation 2, the latter must be considered in order to define the polychrome wares characteristic of the upper horizon. Owing to the apparent uniformity of all wares exposed in the cut bank at excavation 2, it was considered as one unit. To check this, however, material from the very bottom portions was segregated for comparison with the remainder. This will be discussed after the bulk of the material has been analyzed.

The domestic ware from excavation 2 is predominantly monochrome, of a dull red color. A much smaller number of sherds have traces of crude linear designs in brown, dark red, or black. The bulk of the domestic sherds appear to be from medium large vessels which were fairly well polished, with openings varying from heavy direct lips to slightly flaring rims. Vertical, solid, loop, and strap handles occur frequently. There are two dimpled bases and one partially hollowed, conical foot (from a unique vessel form). Six monochrome sherds are decorated with well-executed but simple incised geometric designs.

Nine rim sherds from finer vessels that were both painted and incised are of the thick Las Flores vertical-walled vase type (compare pl. 5, *a-e*). These have a polished slip ranging from dark red to orange, a band of black geometric designs under the lips and below this another band of incised design. As indicated earlier, this Las Flores type of incised and painted ware is also represented on the Bay Islands (Strong, 1935, pl. 18, *b, c, e*). The sherds of this type from excavation 2 (farm 11) also have inner and outer design elements that rather definitely suggest Bay Island Polychrome I pottery. One other sherd with more delicate painted and incised designs (similar to pl. 5, *h*) indicates the same fusion between the Las Flores painted and incised vase style and the Mayoid painted style that occurred at Las Flores. At excavation 2 (farm 11), as at Las Flores, the Mayoid polychrome type of vertical vase is the more numerous. Sherds from these vases are very similar to those from Las Flores (compare pl. 5, *f-m*). They are relatively thick (compared to the vases from the lower levels at Santa Rita) with elaborate but conventionalized over-all designs in red and black on yellow buff. Geometric motifs such as crossed circles are also common. One flat bottom, one low, round, solid, tripod leg, and one thin, solid, rectangular, tripod leg occur. Two elaborately sculptured sherds have a curvilinear Mayoid design. One vestigial spout (identical with pl. 6, *b* from Las Flores) is from a painted and incised vessel.

Smaller bowls with black and red designs on light red or orange are even more common than the Mayoid vase type. Some of these have conventionalized "Mayoid" figures but more have geometric designs such as lines and circles. They are small to medium in size including direct bowls, small pots, and small vases. One vertical strap handle, one flat bottom and numerous rounded bottoms occur. In style these vessels represent a blending between the Mayoid and the Bold Geometric with the latter style predominant. Tripod plates and dishes are lacking here as was true at Las Flores (excavation 2).

Bold Geometric ware is fairly common and the large swollen vessel with broad strap handles occurs (like pl. 7, *a*). The monkey lug, however, is absent at this site. The slip of these pieces is a very dark polished red or orange with geometric designs in black. Animal design forms are lacking. One sherd of this type has a geometric design in white paint. Two typical deep dimple bottoms occur. No figurines, stamps, or whistles were found, but there is a brown pottery foot from a rather large hollow effigy. Two fragmentary prismatic flakes of obsidian were the only other artifacts.

The material segregated from the lowest level in excavation 2 contains fragments of all these types and establishes the uniformity of the deposit. The domestic ware is identical, numerous pieces having blotchy dull red or brown designs. One well-polished sherd has a flange outside the neck with a dull red criss-cross design extending from flange to body. One sherd represents the Las Flores type painted and incised vertical vase. There are several small bowl fragments with conventionalized Mayoid and geometric designs, and one typical Bold Geometric swollen bowl fragment. A sample gathered from the surface of the borrow-pit is similar but contains several " Mayoid " vertical vase fragments rather suggesting the Bay Island Polychrome I type (Strong, 1935, pl. 21 and fig. 21). A portion of a very small tripod vase with red slip and black line decoration has an outer wall panel with excellently sculptured Mayoid faces in profile. In general, all the material from excavation 2, Playa de los Muertos, agrees very closely with that from excavation 2, Las Flores, and with pottery levels A and B in excavation 1, Santa Rita.

Returning to excavation 1 at Playa de los Muertos, we will first consider the material from P 1, the upper or polychrome horizon (fig. 16). The fairly abundant domestic ware is identical with that just described at excavation 2. Two restorable vessels of this type accompanied the two burials in the lower portion of P 1 (fig. 16). That with skeleton 1 is a round-bottomed pot with a low flaring rim and two vertical round handles. It is of coarse brown, unslipped ware with triangular incised designs over the lower neck and upper body. The vessel with skeleton 2 is a polished black vessel with a direct rim and three small solid legs. In direct association with the coarser ware throughout P 1, polychrome sherds occurred. The majority of these are small and some of them are eroded, but their type is definite. The majority come from small bowls with a red or orange slip. The lips of these sherds are painted red or black and similar linear designs occur on the body of the vessels. Ten small sherds are colored buff to orange and have remnants of complex red and black designs. Two orange sherds with red lines and large dots suggest the Bold Geometric ware. Two polychrome sherds are from flat bottoms, and one is a rounded flat bottom. One large, hollow, cylindrical leg with an orange slip and red and black designs is from a tripod dish. The leg has a vertical perforation in the lower portion and holes in the part joining the body. It originally contained a rattle. This type of vessel (compare pl. 7, *e, f*) was lacking in excavation 2. The only other artifact encountered was a fragmentary prismatic flake of obsidian. Although

the polychrome sherd sample from excavation 1 is small, it is very similar to the material from excavation 2.

Playa de los Muertos culture material is abundant throughout an average of 2 meters in the lower portion of excavation 1 (P 2-9 inclusive, fig. 16). Broken pottery comprises the bulk of the collection, since no complete vessels were recovered by us and other artifact types were rare. This discovery of undisturbed refuse deposits entirely pertaining to the old Playa de los Muertos culture is exceptionally important. Not only does it give a representative and unselected sample of the culture but it also permits the inclusion of burial materials obtained by Gordon and Popenoe as definitely pertaining to the older horizon. Although Gordon in his brief published report gives no data on relative depths and states that no observable stratification occured (1898, p. 38), it is undoubtedly significant, that the majority of complete vessels he illustrates (1898, pl. 7, *a, b, c, d, e, h, k, n, o, p, q, r, s, u*) are characteristic of the older Playa de los Muertos culture. Furthermore, examination of his letters from the field and the occasional depths he recorded in cataloging, now on file in the Peabody Museum, indicates that all these complete vessels came from the lowest portions of his Playa de los Muertos (Largartijo) excavations. These undoubtedly were from burials of the old Playa de los Muertos period. The old burials excavated by Mrs. Popenoe are fully documented (Popenoe, 1934, pp. 65-79). All are from below 4 meters in depth and contain only Playa de los Muertos materials. Since we found no entire vessels of the Playa de los Muertos culture, we have included outline sketches of vessels obtained from graves by Mrs. Popenoe (figs. 17, 18). Thus, each ware or ceramic subtype of this culture, established on the basis of our potsherd collection, can be illustrated in its complete form by a vessel from Mrs. Popenoe's collection pertaining to the same Playa de los Muertos type or subtype (also compare Mrs. Popenoe's illustrations, 1934, figs. 2, 6, 8, 11, 12, and 15). The final description of the Playa de los Muertos cultural horizon must include a complete study of the abundant comparable Gordon and Popenoe materials, but this is not attempted here.

For present purposes we have grouped our 30-centimeter stratigraphic levels of Playa de los Muertos culture material (fig. 16, P 2-9 inclusive) into two uneven divisions, an upper (P 2-4 inclusive), and a lower (P 5-9 inclusive). The lower grouping of levels, which we may call levels C (P 5-9), yielded almost twice as much material as did the upper levels, here designated as B (P 2-4), owing to the fact that level P 5 was unusually rich and overweighted whichever half it was placed with. This discrepancy can be avoided later when

finer analyses are attempted, but for present purposes this segregation into a smaller upper and later grouping of Playa de los Muertos cultural materials (B); and a larger, lower, and earlier grouping (C)

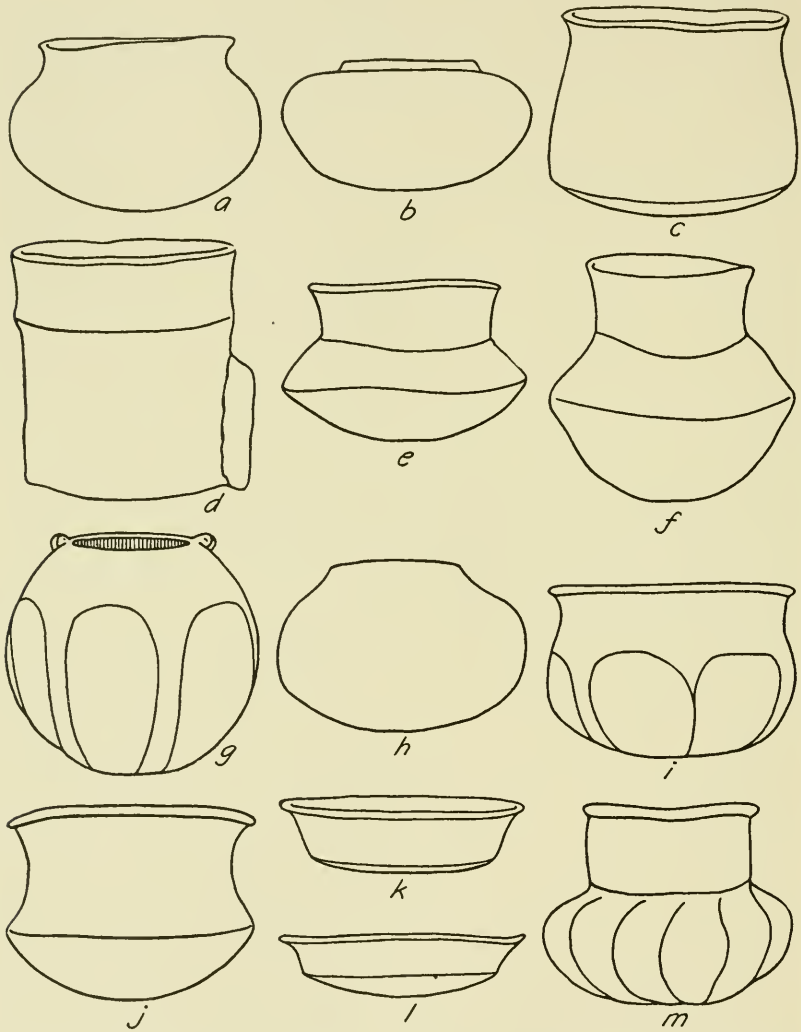

FIG. 17.—Outlines of vessels of the Playa de los Muertos culture obtained by Dorothy H. Popenoe. Not to scale. *a*, burial 2; *b*, *c*, burial 4; *d-l*, burial 5; *m*, burial 7.

must suffice. Even such an arbitrary division suggests certain ceramic trends within the period that may well be significant.

The ceramic materials from B and C fall into six main wares or ceramic subtypes based on surface finish or decorations (pls. 10, 11,

FIG. 18.—Outlines of vessels of the Playa de los Muertos culture obtained by Dorothy H. Popenoe. Not to scale. *a*, burial 7; *b*, *c*, *d*, *e*, *f*, *i*, burial 8; *g*, *h*, *j*, *k*, *l*, *m*, burial 11.

and figs. 17, 18). Each of these subtypes share common features of form and decoration uniting them into a very definite major ceramic type characteristic of the Playa de los Muertos culture. The most abundant sherds from both B and C may be described as (1) *unslipped, rough, brick-red to sooty gray ware.* These are often from large vessels with slightly flaring rims and necks of variable height, or from smaller vessels with low necks and swollen lips. Broad, vertical, strap handles are common in both B and C, but the great majority of handles in C have two or three vertical ridges and corresponding depressions down the outside. Two round, solid, vertical handles of large size from B and one from C have conical tenons on the ends for attachment to the body of the vessel. Of the nine basal fragments of this ware in B, eight are flat and one dimpled; in C three of the four basal sherds are flat and are slightly rounded. One spout of this ware occurs. Decoration is rare, several sherds have incised lines forming criss-cross designs, and three sherds have a raised ridge with regular indentations about the greatest diameter of the vessel. Subtype 1 seems very similar to the plain or domestic wares characteristic of the upper or polychrome horizons at Playa de los Muertos, but the prevalence of flat bottoms seems rather distinctive. Owing to lack of space, this subtype is not illustrated here except for an outline sketch (fig. 17, *b*).

Subtype 2, (pl. 10, *a-h*), *slipped and polished orange-red to brown ware,* is almost as abundant as subtype 1 in B, but only about one-fourth as abundant in C. Shapes in subtype 2 are very similar to those in subtype 1, but the vessels were somewhat smaller (fig. 17, *g, h, i, j,* and fig. 18, *e, g, i, j, k*). One spout from this sub-type is from B and 2 from C. A rather heavy basinlike bowl or vase (fig. 17, *k, l,* and fig. 18, *c*) is rather common, as are direct bowls (fig. 18, *g, l*). Handles seem rare but a few vertical strap handles occur. Fluted sherds (pl. 10, *f*) are fairly abundant in B but do not occur in our sample of this ware from C. Fluted fragments are usually from the body portion of rather small rounded or swollen bowls (like fig. 18, *m,* in shape). The fluting varies in width and is either vertical or diagonal. Incised lines often set off the fluted portions. Incised and modeled sherds of this type occur in B, but only incising in C. Several fragments from B have intricate and well-executed geometric and curvilinear incised designs (pls. 10, 11). In C basinlike bowls with heavy incised designs are represented. In B a hand in high relief is the best modeled piece. Broad, flattened lips with deeply incised decoration (pl. 10, *h, i* represents the type) are very common in B and fairly common in C. Usually the entire rim is flattened and decorated, the rim ex-

tending farther out on two sides, forming a handle or a definite tab (pl. 10, *h, i*).

Subtype 3 is a *dark gray to black, highly polished ware* (pl. 10, *i-n;* figs. 17, *m;* 18, *m*). This is a very distinctive slipped ware with such a high polish and so much fire clouding that certain pieces have an almost purplish color. The forms are very similar to those in subtypes 2 and 4, and fluted sherds and flat, heavily incised rims (pl. 10, *f, h, i*) are common to all. Fragments from basinlike bowls are common (pl. 10, *j, m*) and the incisions on such pieces are sometimes so deep as to suggest a series of outer flanges. There are no handles of this ware, but one small, solid, cylindrical foot occurred in B. This is the only foot noted in the entire Playa de los Muertos culture horizon. Material of subtypes 2 and 3 are about equal in amount but subtype 3 is more abundant in C than in B. This suggests that subtype 3 is generally earlier than subtype 2.

Subtype 4 is a *slate-gray to buff, highly polished ware* (pl. 10, *o-s;* fig. 17, *d, e, f, k;* fig. 18, *a, b, f*). In amount this ware is about equal to the two preceding subtypes and is slightly more abundant in C than in B. The majority of pieces appear to have had a light-colored slip and a subsequent high polishing that gives them almost a glazed appearance. The paste is exceptionally fine, and the pottery very hard. Irregular dark firing clouds are very common (pl. 10, *r*). In general the shapes are similar to those already discussed, but small bowls with low, slightly flaring and swollen lips are common (pl. 10, *o, q, s*). Several sherds have ridges, tabs, and human features in relief, and a number of spouts of this ware occur in C. An unusual flaring, trumpet-like neck has been figured elsewhere (Strong, 1937, fig. 76, upper left). A fragment similar to this was found in the older deposits at Lake Yojoa by Mr. Rittenhouse and erroneously restored as a trumpet. Flat bottoms are common, but a few rounded bottoms occur. Handles are rare.

Subtype 5 may be designated as a *ware with a chalky white wash* (pl. 11, *a-c*). It is relatively rare in both levels but somewhat more abundant in C than in B. It should be noted that the majority of the figurines from B are of this ware (pl. 11, *q, r*). The majority of sherds come from heavy, direct bowls or from pots with low necks and slightly flaring lips. One extremely broad, vertical strap handle occurs, as well as two large spouts (pl. 11, *a*). The figurines and a few sherds of this type with painted designs will be discussed later.

The sixth ceramic subtype from this horizon is comprised of various *painted wares.* Painted pottery is relatively very rare in the Playa de los Muertos culture horizon, yet forms an important and varied

type. It was about equally divided between B and C, perhaps indicating that it was more abundant in later times since the smaller upper section yielded an equal amount of painted sherds. Red and black painted sherds constitute one type (pl. 11, *f, g, k*). Some of those sherds have alternate areas of black and red sometimes separated by incised lines (pl. 11, *g*). In other cases these red and black areas are very irregular, and the colors form irregular blotches rather than controlled designs. Numerous flattened and incised rims of the very dark subtype 3 have flecks or small areas of red paint (pl. 11, *f*), others have red on black, or black on red, painted areas. The under side of such flattened rims are usually black. Several fluted fragments have black and red painted areas. A few small vertical handles and one very small horizontal handle (pl. 11, *g, k*) occur in this red and black ware. The red and black painted sherds are more numerous in B than in C. Red on buff sherds are the next most abundant type (pl. 11, *i, j, o*). The majority of red on buff sherds come from C, but the type is represented in B. Most of these sherds come from small vessels with a red band on the inside and outside of the rim (pl. 11, *j*). The lower portions and the bottoms of these vessels were often red, and the remainder, except for red rims, was buff. Several have incisions in the red area showing the underlying buff. One rim sherd from a direct bowl, polished red on the outside, has faint red linear designs on the inside with the lighter buff showing through them like negative painting. A very well-modeled and painted red and buff lug comes from B (pl. 11, *o*). Several large sherds of coarse unslipped brown or buff ware have red bands on lip, neck, or rim (pl. 11, *h*). Two sherds in B and four sherds in C have a dull white slip with red lines or bands on the outside and in one case on the inside (pl. 11, *m, l*). They are from large vessels with low flaring lips and include one broad, vertical strap handle. Three sherds from B and one sherd from C have irregular white designs on a red painted background. These are from large, coarse vessels. In two cases the lip has a band of white inside and out; in one there are broad, irregular vertical lines extending down the rim, and in another there are blotchy white designs on the inner surface.

One polished, dull red rim sherd (pl. 11, *n*) has vertical lines of dull gray paint extending down the neck. This suggests negative painting, owing to the fading of the gray paint. It has already been stated that several of the other painted sherds with faded linear designs imitate negative painting. In passing it may be said that although Usulatan ware is not present in our Playa de los Muertos culture ceramic sample, it does occur at the site (Vaillant, 1934, p. 90).

Gordon obtained an excellent complete vessel of this ware at a depth of "26 feet" (Peabody Museum C 1054), and we found sherds of Usulatan ware in the lowest horizon at Santa Rita (farm 17). It is probably one of the components of this early ceramic complex. In concluding this brief description, it is interesting to note that whereas the polished and incised ware of the Playa de los Muertos culture is of an advanced and mature type, the very small percentage of painted wares is highly variable and suggests an early, experimental interest in this technique.

Of the remaining artifact types, the figurine fragments are perhaps the most interesting. From B come four fragments, all from hollow figurines and all but one with a polished white slip (pl. 11, *v, r*). Three of these, all with a polished white slip, represent a bulbous, seated type that is much conventionalized (pl. 11, *v, r*). The fourth is an unusually well-modeled face of polished brown ware (pl. 11, *p*). From C come 10 figurine fragments, all of which are solid and all but one without any slip. Three represent female torsos (pl. 11, *t, u, v*). Although very simple, they have a primitive naturalism that is rather pleasing. Six fragments of solid figurines are more fragmentary but suggest similar types. Gordon (1898, pl. 10, *d, f, g*) shows complete examples of this solid, naturalistic type. The last fragment is also solid but has a dull, polished white slip like those from the upper level (pl. 11, *s*). Our sample is too small for certainty, but there is at least a hint that the hollow, slipped figurines were later, being preceded by the solid, naturalistic, hand-modeled type.

Artifacts of materials other than clay were very rare. B yielded one small jade bead, four fragmentary prismatic flakes of obsidian, two retouched pieces of obsidian, two polishing stones (one stained red), one piece of pink chalk (?), and two irregular flakes of hard stone. C yielded one prismatic flake of obsidian, one small rectangular muller, and several battered hammer-stones. As is true of the later horizons, the proportion of perishable to nonperishable artifacts, other than pottery was very low in the Playa de los Muertos culture. It is interesting to note that animal bones were unusually abundant in this horizon, suggesting a considerable dependence on hunting. Over a dozen fragments of baked clay retain the impress of wattle and daub house construction. When the present midden material is considered in relation to the much more elaborate grave materials obtained by Mrs. Popenoe (1934) and by Gordon (1898), a reasonably complete record of the period is available.

OTHER SITES

In addition to the sites intensively worked, numerous other mounds or refuse deposits were also examined. The majority of these are shown on the map (fig. 5). Mound groups are abundant on both sides of the Ulua River but to date have yielded relatively little material. Aside from superficial examination and the gathering of small sample sherd collections, we did no work at such sites. In general, the mounds on the present valley floor appear to be relatively recent and yield ceramics that are inferior to those of the earlier polychrome periods. However, until adequate work has been accomplished at such sites, the linkage between definitely historical sites, such as Naco, and the deeply buried, earlier polychrome periods will be obscure. Our failure to excavate mounds was due to lack of time, not of interest. Small excavations were made at two polychrome sites, one below Naranjo Chino and the other on farm 15 (see map, fig. 5). These yielded splendid polychrome sherds apparently contemporaneous with the lower levels at Santa Rita (farm 17). On farm 10 we excavated a shallow polychrome deposit containing pottery identical with that from the late polychrome horizon at the nearby Playa de los Muertos site (see map, fig. 5). It is probable that earlier polychrome deposits occur here also as indicated by the excellent, realistic Mayoid vase (fig. 19) which is reported as having come from farm 10. We have illustrated this specimen, which is in a private collection near Trujillo, because it is a splendid example of the best Mayoid tradition in early Ulua-Yojoa polychrome wares (compare pls. 1 and 8, *a, b,* also fig. 30). It is also unique in showing ceremonial drinking among the Maya.

North End of Lake Yojoa

On February 22 and 23, 1936, Mrs. Strong, Dr. Wilson Popenoe, and the senior author stopped over at Jaral and visited sites east and west of that town where commercial excavations had been carried on (see map, fig. 20). At Aguacate we obtained a considerable amount of broken but restorable pottery that had been discarded by these earlier diggers. On March 9, Mr. Paul, Mrs. Strong, and the senior author returned to Jaral and remained there until April 6, carrying on excavations at various polychrome sites in the hope of obtaining at least a partial scientific record prior to their entire destruction by pot hunters. Our work was interrupted by "Holy Week" during which period neither work nor travel was practicable. Later, on May 26, Mr. Paul returned for a week in order to carry on deeper excavations,

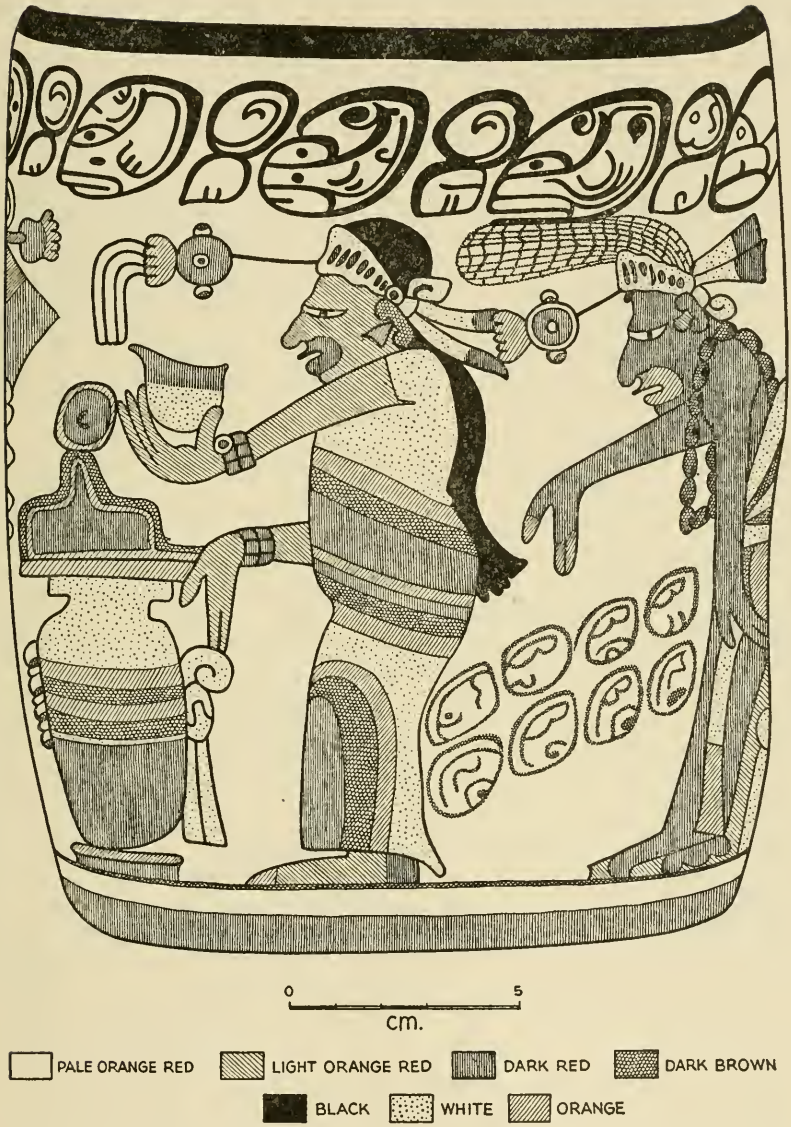

FIG. 19.—Polychrome vase of Ulua Lower Mayoid type, said to have been found downstream from Playa de los Muertos on the Ulua River bank. (From a private collection near Trujillo.)

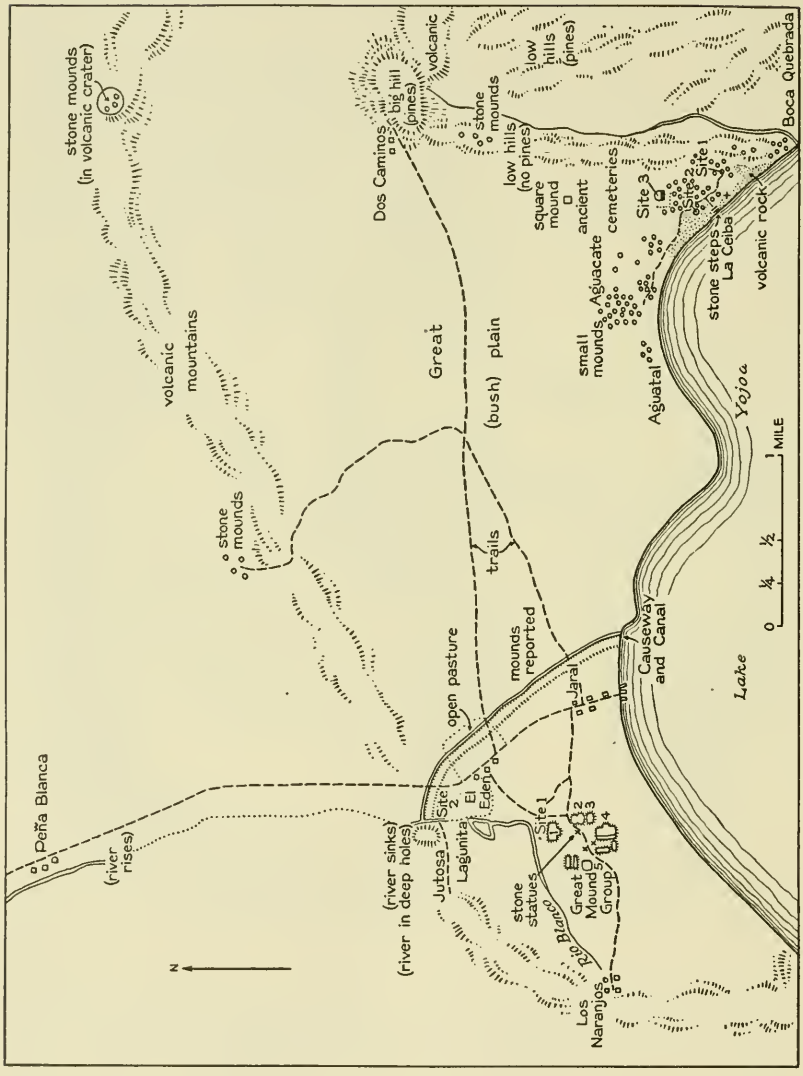

FIG. 20.—Sketch map of archeological sites around the north end of Lake Yojoa.

seeking an earlier type of culture at the Los Naranjos site. In this venture he was successful despite the very limited time available.

Only within the last 4 or 5 years has the occurrence of prolific mounds around the north end of Lake Yojoa become a matter of scientific knowledge. The first of these were dug up by local farmers and, later with the permission of the Honduras government, J. B. Edwards carried on extensive excavations in the region. In 1934 Mrs. Doris Zemurray Stone [14] visited Los Naranjos and published a brief report.

In 1935 Frans Blom, Dr. Jens Yde, and Prentiss Andrews spent 4 days around Jaral in the course of the Tulane University-Danish National Museum Expedition.[15] They explored around the various sites, worked with Mr. Edwards, and from him obtained collections of the polychrome ware.

On our second visit we rented a dilapidated house in Jaral and boarded at the " Grand Hotel Rats' Nest ", as it was fittingly christened by Yde and his companions. Our genial host, " El Chino Alejandro ", however, made us as comfortable as his limited resources permitted. In Jaral we were also greatly aided by Capt. Evalyn Bush, and in the field by our two main workers, Paco Ramirez, of Dos Caminos, and Miguel Hernandez, of El Eden. Information furnished by Mr. J. B. Edwards proved very useful throughout our work.

The major geographic characteristics of Lake Yojoa have already been touched upon. Outstanding archeological features of the plain at the northern end are, first of all, the great mound group and fragmentary stone statues at Los Naranjos (great mound group, map, fig. 20) ; next the long earth mound or causeway, with its parallel ditch, just east of the road to Jaral (map, fig. 20) ; and finally the series of " ancient cemeteries ", or low house mounds containing burials, about 3 miles east of Jaral near the lake shore (map, fig. 20). In the following account we will attempt to present very briefly the major characteristics of certain of these features, each of which merits at least a full season's work and a complete report. Our primary aim was to determine the nature and association of the major ceramic wares present at such sites and, if possible, to determine whether stratification of culture horizons might be present. The apparent richness

[14] 1934, pp. 123-128. Mrs. Stone, p. 128, mentions the occurrence of gold at this site. To the best of our knowledge, no metals of any kind have ever been found there.

[15] See Yde, 1935, and 1936. The earlier report (fig. 5) shows four typical Yojoa vessels; the upper has the " dancing figures " and is Mayoid in type. The three lower vessels are in the local Bold Animalistic style.

and complexity of Lake Yojoa ceramics makes any brief description extremely difficult. However, since the majority of Yojoa collections in various museums are highly selective, even a preliminary account of the manner in which the various types of vessels and artifacts occur *in situ,* should have value. Since complete or restorable pottery vessels are more abundant in Lake Yojoa sites than in those previously described, we will discuss them in this preliminary report, leaving detailed potsherd analysis for a later time.

AGUACATE AND AGUATAL

Modern place names around the north end of the lake are usually derived from certain trees that mark favorable areas for milpa farming. Aguacate and Aguatal (map, fig. 20) are so named, and it was here that the first finds of Yojoa polychrome pottery were made. Both sites have been sadly looted, and though we visited them on our first trip to the lake, we were unable to find any mounds or promising areas sufficiently undisturbed to merit scientific excavation. Probably a very large proportion of Yojoa polychrome vessels in collections inside and outside Honduras, have come from these sites which appear to have been exceptionally prolific. We reached them after a long walk along the trail to Dos Caminos (map, fig. 20), then cutting south through the generally low but very dense bush. Each site consists of a large (Aguacate is the larger) irregular area covered with low mounds ranging from barely visible eminences to some 2 meters high. Originally, the mounds were covered with rocks, many of large size, but at the time of our visit both areas were entirely covered with shallow, irregular burrowings and piles of rich black dirt and stones which obscured almost all natural contours. The dense bush added to the difficulty. The excavations ranged from 30 centimeters to about 2.5 meters in depth and, starting in what originally seem to have been mounds, run labyrinthian courses wherever the machete-wielding "huaqueros" believed they were in mixed soil. Potsherds were abundant, polychrome pieces seeming to predominate over plain or cooking ware fragments, and a number of splendid and only slightly broken vessels lay about, indicating that they had been carelessly excavated and then abandoned in favor of harder and more resistant complete vessels. Numerous three-legged metate fragments of various sizes, roller pestles, rectangular mullers, and two large polished celts were noted. There were no human bones in sight, but our guide said that small fragments were occasionally encountered in association with complete vessels. Among the great number of rough, volcanic rocks

that once formed these mounds we noted a few that appeared to be artificially squared or smoothed, and in one or two cases the disturbed rocks appeared to have once formed part of some simple artificial structure.

Although the occurrence of some domestic pottery and broken artifacts, such as metates, suggests human habitation at these sites, the predominance of elaborately painted sherds and the reported occurrence of very numerous deposits of complete polychrome vessels suggests a burial ground wherein the human bones had vanished owing to the damp, very humous soil. In the light of our later excavations at La Ceiba and Los Naranjos, it seems probable that both habitations and burials formerly occurred here, with the latter coming to be predominant before the sites were finally abandoned. Except that Aguacate covers a larger area than Aguatal, and that the rather closely adjacent sites have been given different names by modern farmers, the two seem to be identical in types of pottery represented, in the nature of the mounds, and in the complete manner in which they have both been looted.

An analysis of all the vessels from, or reported to be from, these two sites would probably run the complex gamut of Lake Yojoa polychrome ware. Sherds of almost every Yojoa polychrome type were actually present in the old excavation pits, confirming the reports of various of the diggers that the majority of these vessel types occur in association. Our necessarily brief discussion of ceramics from these two sites is based, first, on 14 broken but restorable vessels which we ourselves picked up in the diggings at Aguacate on our first visit. Although these abandoned pieces may not represent the finest types from the site, they are definite as to site provenience and probably generally representative. Next, we were able to acquire a number of complete vessels obtained by local diggers at Aguacate and Aguatal, and in some cases to sketch and photograph other vessels from these sites which were not acquired (for example, fig. 30). Complete vessels thus obtained were sent to the National Museum of Honduras at Tegucigalpa, and our present illustrations were made from field photographs and sketches. Some of these latter vessels, reported to be from Aguacate and Aguatal, but not excavated in our presence, may have come from La Ceiba. However, we talked directly to the excavator of each, and there is strong probability that the majority did come either from the place designated or from one of the adjacent southeastern sites (see "ancient cemeteries", map, fig. 20).

The 14 restored vessels we obtained at Aguacate fall into five major types in regard to form: first, straight-walled or only slightly flaring

vases or jars, with or without tripod feet; second, tripod dishes; third, open bowls with dimpled bases; fourth, two-handled pots with dimpled bases; and, fifth, bichrome or monochrome pots with direct or slightly flaring rims and two or four vertical handles. The finest of the first type is a vertical-walled vase with three slightly hollow, low, cylindrical feet. In form and coloring it is almost identical with one illustrated (pl. 1). It has the identical step and scroll design pattern on the lip, but the body design consists of two pairs of interlocked horned or

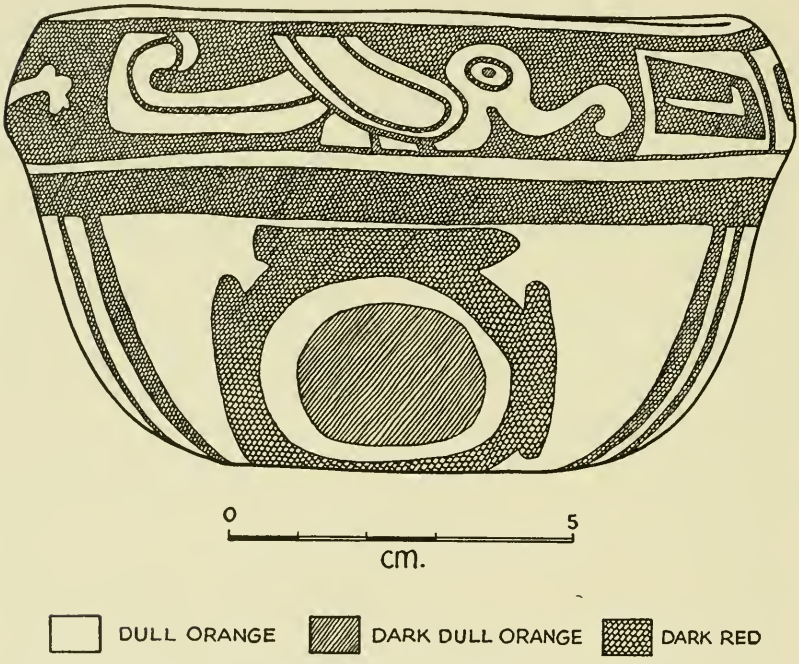

FIG. 21.—Yojoa Polychrome bowl, Bold Animalistic type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

plumed serpents with spearlike flames coming from their nostrils (similar to pl. 13, *d*). A low, flat-bottomed vase with thickened lips and paneled walls is too badly eroded to make out the design. A third piece of this general type has slighty flaring, straight walls and a dimpled base. Around the neck is a band of skeuomorphic glyphs, dark red and black on an orange background. On the orange body of the vessel there are two conventionalized parrots in dark red and black. Tripod dishes, the second type, are here represented by only one example (pl. 14, *c*). This is of medium size with hollow, cylindri-

cal legs containing rattles. The body color is dark orange with panels of geometric and conventional designs in red and black.

The third type, bowls with dimpled bases, includes five vessels; the finest of these is of thin ware with a light orange background and elaborate design in dark red and black on the outside. Around the neck is a series of plumed Mayoid faces conventionally but exquisitely executed; these are identical with those on a very similar vessel from Aguatal (pl. 12, *c*). The body has complex, human figures in the same elaborate style, but erosion prevents a clear understanding of the design. A smaller thicker bowl with a buff background has purple around the lips and on the body, enclosing buff circles in which are crude, conventionalized Mayoid faces. Around the neck is a buff band with black, skeuomorphic glyphs. A heavy bowl has a white slip with massive, dark red, dull orange and black panels, bands, and designs. On the sides are two heavy monkeys squatting in profile. One has a forward-sweeping plume similar to those on the priestly figures, the other has a backward-sweeping plume and a long tongue. A thick but well-executed bowl is light orange with dark orange and black designs. On the rim, these are geometric, but in two circular areas on the side are ornate birds, evidently the Muscovy duck, with strange, wrapped objects on their backs. The last open bowl is light orange with two extremely ornate black and purple birds. It has isolated black stepped scrolls outside the lip (like pl. 1).

There are two vessels of the fourth type, i. e., bowls with two vertical strap handles and dimpled bottoms. One of these is light orange with a low straight neck and black and red geometric designs. On the sides these form two highly conventionalized monkeys whose raised faces with indented eyes project like lugs (compare fig. 22 and pl. 13, *c*).

The second vessel of this type has a low neck and more swollen body (like fig. 26). It is orange in color with a band of red and black geometric designs around the neck, a band of curvilinear designs around the shoulders, and three ornate concentric diamond designs down the body (fig. 26 had similar but more elaborate designs).

The three vessels of the fifth type, monochrome or bichrome pots with direct or slightly flaring rims and two or four vertical handles, suggest domestic or cooking ware. The largest of these has a round bottom, low lip, and four solid, vertical, loop handles. It is a dull, slightly polished red with smoke stains on the bottom. A smaller but heavier vessel is similar as to handles and base. It is lower, however, is dark red, and has more polish. The third vessel is dull buff with

vertical bands of dark red (like fig. 27). Unlike the above, it has a dimpled base and only two vertical loop handles.

A very brief analysis of other vessels reported to be from Aguacate and Aguatal, probably including some from La Ceiba as well, will bring out the major types represented here. The majority of the straight-walled vases from these sites bear Mayoid designs, very often identical with those on similar vessels from the Ulua or Sal-

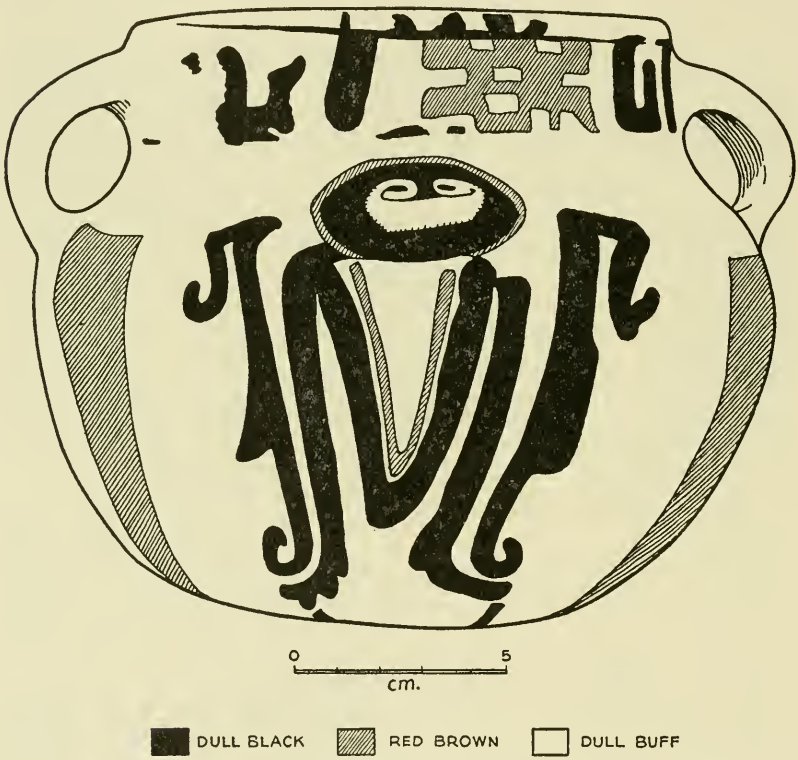

FIG. 22.—Yojoa Polychrome pot, Bold Animalistic type, Aguatal. (Specimen in the National Museum of Honduras at Tegucigalpa.)

vador regions (see pls. 12, *b;* 13, *f,* and fig. 30). Since these vases are the ones mostly highly valued by collectors, they are apt to preponderate in purchased collections, disproportionately to their actual occurrence in the field. An exceptionally fine vase of this type, said to come from Aguacate, is illustrated (fig. 30). There are three design units; two are seated priests, and the third is a monkey shown against a black medallion. The two priest designs are similar (fig. 30) except that the one not illustrated holds a five-branched scepter. This

vessel was sketched and photographed in a private collection at Jaral. The tripod dish appears to be rare, but tripod plates, with either high, hollow legs (like pl. 12, *f*) or low, hollow feet (pl. 14, *c*) containing rattles, are rather common. The majority of these have conventional designs of the Bold Animalistic type, but Mayoid designs do occur (pl. 12, *f*), including skeuomorphic glyphs and "dancing figures" associated with textile designs. Yojoa vessels of this sort appear to be somewhat more variable in size than are those from the Ulua. Small, dull brown vessels, with or without low, solid, tripod feet and decorated in the imitation Ulua marble bowl technique of incising,

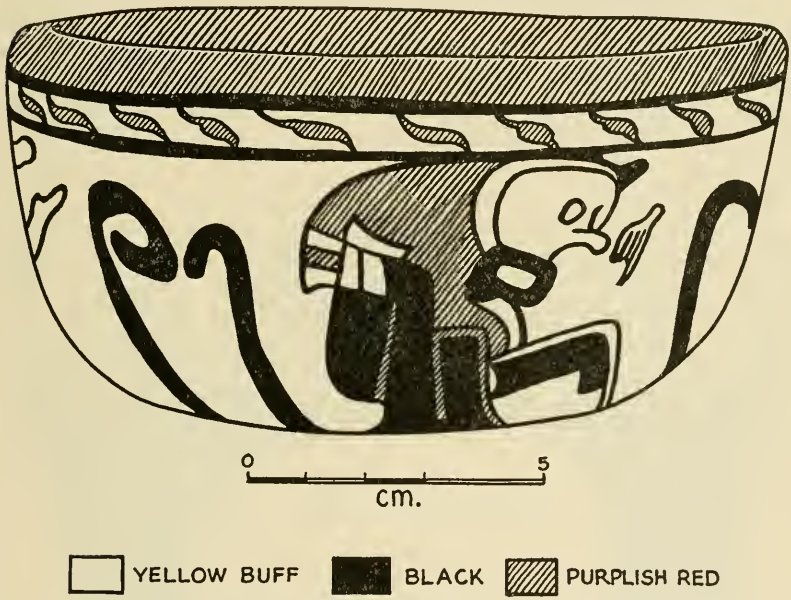

FIG. 23.—Yojoa Polychrome bowl, Bold Animalistic type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

also occur (pl. 14, *e*). A few of these vessels, with lugs suggesting the Ulua marble bowl technique, have sculptured designs that appear more Mayoid. Particularly noteworthy at Aguacate are a few flat-bottomed dishes of highly polished dark brown ware having unique carved designs (pl. 14, *f*). These conventionalized designs are carved through the slip and, owing to the light color of the paste, stand out clearly. This seems to be a ware and decorative technique distinct from either the imitation Ulua marble vases or the Maya sculptured vessels. Open bowls vary in size and, as a rule, have two main types of design: Mayoid (often against a dark background) (pl. 12, *c*, *e*,

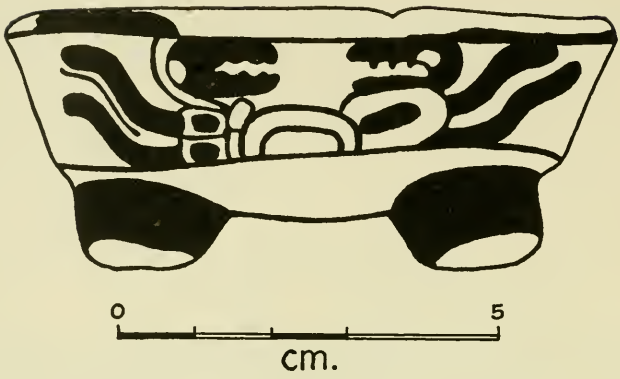

FIG. 24.—Yojoa Polychrome tripod dish, Bold Animalistic type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

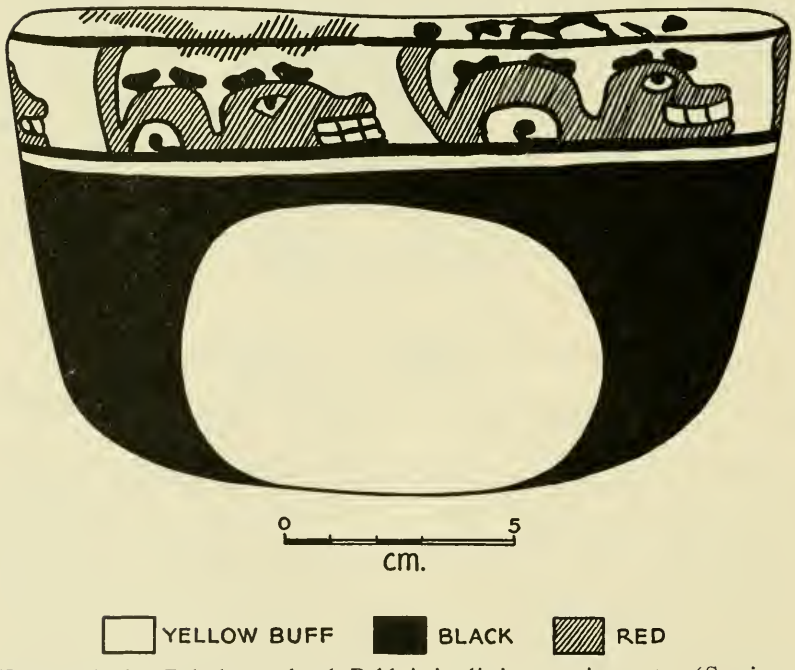

FIG. 25.—Yojoa Polychrome bowl, Bold Animalistic type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

and figs. 28, 29); or a combination of Bold Animalistic and geometric motifs including highly conventionalized birds (pl. 14, *a, b;* figs. 21, 24), monkeys, (pl. 13, *a, b, c,* and figs. 22, 23), alligators (fig. 25), peccary, and "dancing" jaguars (pl. 12, *d*). Although somewhat similar animal motifs occur on true Maya wares, these Yojoa forms are generally distinctive and are usually associated with other designs suggesting the Bold Geometric style of the Ulua. Mon-

FIG. 26.—Outline of Yojoa Polychrome pot showing "vestigial" spout, Aguacate. (From a private collection at Jaral.)

key designs occur commonly on the two-handled pots with dimpled bases (pl. 13, *a, c,* and fig. 22). The range of Lake Yojoa monkey designs is extremely wide and interesting. The Bold Geometric swollen vessel with monkey lug handles is not overly common at Aguacate or other Lake Yojoa sites but does occur (pl. 14, *d*). Such Yojoa vessels are smaller than the majority of those from the Ulua and often have vestigial lugs and less striking red and black designs. These vestigial handle-lugs are also very common on the dull buff cooking vessels with dull red stripes (fig. 27). Another two-handled straight-necked

type of pot from Aguacate is decorated with intricate dark purple designs on orange. One such vessel has a panel of isolated orange heads on purple around the shoulder and an intricate purple "mask" design on the lower body and neck. The two lower design areas are separated by an ornate concentric diamond design. Figure 26 from Aguacate had a very similar design and shape except for the rather unusual but significant vestigial spout. Another vessel form, the an-

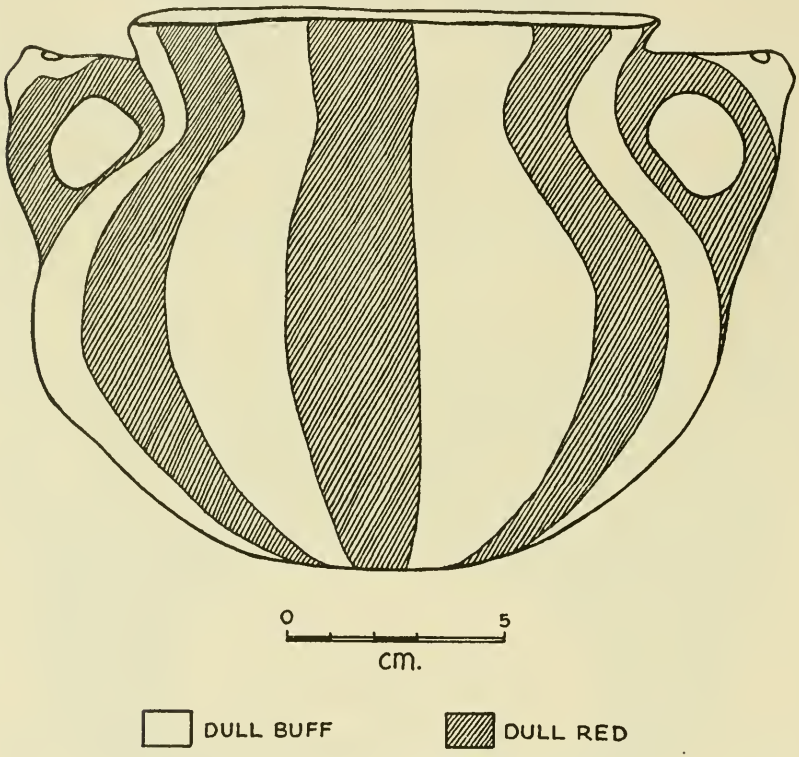

FIG. 27.—Yojoa Polychrome cooking pot, Aguatal. (Specimen in the National Museum of Honduras at Tegucigalpa.)

nular-based "salad bowl" type (pl. 14, *g*), also occurs at Aguacate. Cooking pots of dull buff color with vertical dull red stripes and two handles (fig. 27) and four-handled, polished red pots are far more common at Aguacate than any of the selected collections would indicate, for the looters usually throw these away.

No brief description can do justice to the diversity of Aguacate, Aguatal, and other Yojoa polychrome forms and decorative elements, yet it must be remembered that all of these come from the same sites

and from depths that are rarely as much as 2 meters. Moreover, despite the occurrence of at least two distinct major styles, the Mayoid and the local Animalistic or Bold Geometric, the composition and even the colors of both are similar. There is, moreover, a great overlapping of design elements. At Santa Rita (farm 17) the typical Mayoid and the Bold Geometric polychrome vessels, exclusive of the numerous intermediate types where they blend, seem more distinct than do the two major types at Lake Yojoa. Moreover, despite the great richness of color and design, the bulk of Lake Yojoa polychrome

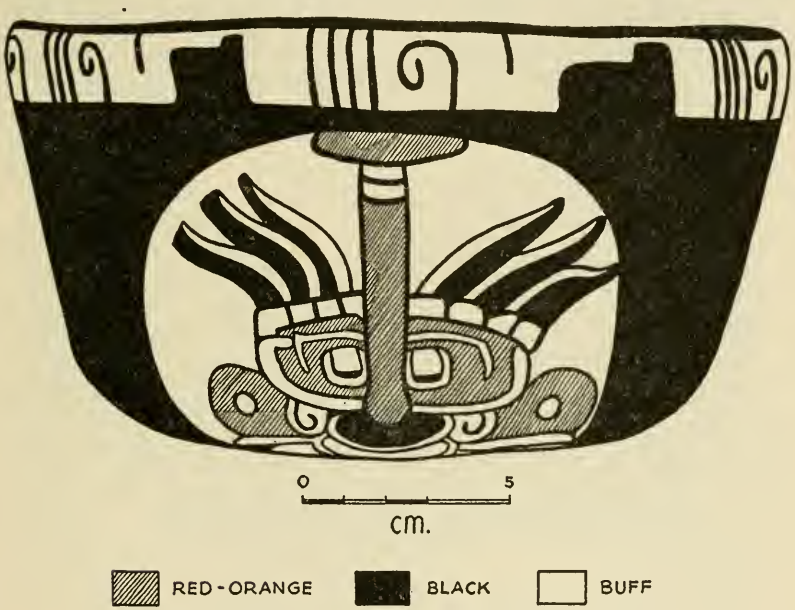

FIG. 28.—Yojoa Polychrome bowl, Mayoid type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

pottery appears to be technically inferior to either the Mayoid or the Bold Geometric ware at Santa Rita or other old polychrome sites on the Ulua. Occasional Yojoa pieces, and these are the ones eagerly acquired by collectors, have a fine hard paste and fast colors, but for every one of these, the looters discarded or ruined hundreds of pieces that were crumbly in texture, with faded or eroded paints. Had the peoples of early polychrome times on the Ulua had the archeological generosity to bury complete vessels with their dead, as did their contemporaries on Lake Yojoa, this comparison would be more obvious than it is at present. Analysis of paste, form, size, color, and

design, and the intercorrelation of these factors in the Aguacate-Aguatal collections must await future publication, but the foregoing, very brief, description may give some idea of their richness and the manner of their occurrence insofar as the looters have not destroyed all such evidence.

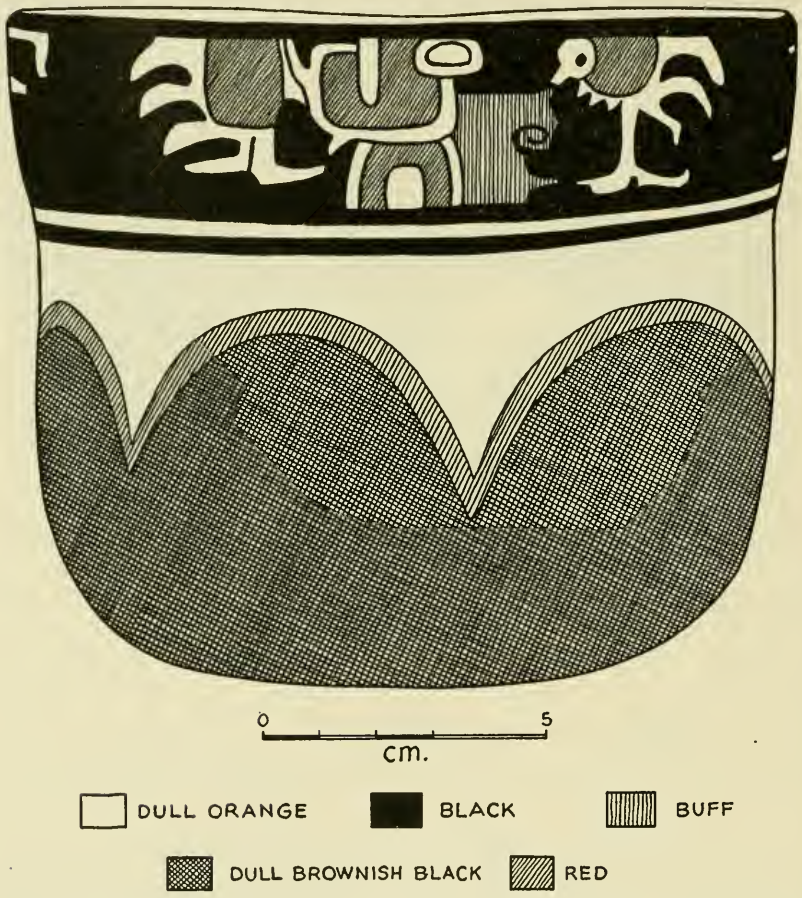

FIG. 29.—Yojoa Polychrome bowl, Mayoid (?) type, Aguacate. (Specimen in the National Museum of Honduras at Tegucigalpa.)

LA CEIBA

The first time we visited La Ceiba we walked in from Jaral by the trail to Dos Caminos and came back along the lake shore (map, fig. 20). The latter was an especially hard trip through the black mud and dense jungle of the lake shore. It was enlivened, however, by the profusion of orchids, animal tracks, and land and water birds we

encountered. Later we always rowed down in a cranky old boat, forcing our way in to shore through the massed water hyacinths (see fig. 71, Strong, 1937) to land at the old stone steps (see map, fig. 20). These roughly laid tiers of unworked stone extend several

FIG. 30.—Yojoa Polychrome vase, Mayoid type, Aguacate. (From a private collection at Jaral.)

meters from the shore up over the barrier of volcanic rocks that lie just beyond. They appear to be artificially laid and of native origin.

SITE 1

Our first excavations were made in one of a series of low, rock-covered mounds about 1 kilometer southeast of the stone steps (site 1,

map, fig. 20). En route to the site one passes two sharp mounds about 2 meters high that have been deeply pitted by pot hunters. There are a large number of such mounds in the general vicinity. The mound selected, mound 1, when cleared, was 10.75 meters long from north to south, 10.5 meters wide from east to west, and about half a meter high. It had not been pitted. A trench 1 meter wide and 7 meters long was run from the eastern edge to just beyond the center of the mound. The soil at and above ground level was a rich black humus full of various-sized volcanic rocks. At a depth of slightly less than 1 meter below ground level, both stones and artifacts ran out, and a sterile, yellow clay was encountered. Above this, the black soil was flecked with the same yellow clay, indicating disturbance. The bulk of the sherds and charcoal occurred in the black soil below the natural ground level, the slightly raised mound area consisting mainly of rocks. No definite house floors, burials, or other structural features were encountered.

Potsherds were the most numerous artifacts from mound 1. No complete pots were encountered. The sherds were predominantly from unslipped brown cooking vessels with very heavy and solid handles which were vertical or round in cross-section. Coarse buff ware with dull red stripes and similar handles was also abundant. Polychrome sherds were few in number, mostly from dull orange bowls and tripod plates with geometric red and black designs. Legged metate fragments, fragmentary roller pestles, rectangular manos, half an ovoid sandstone bowl (1 m deep), and three prismatic flakes of obsidian were the only other artifacts. Mound 1 was apparently a habitation site judging by its contents. In all probability there were burials in the mound somewhere which led to the site having been covered with rocks, but this is problematical.

Less than a meter south of mound 1 were two small rock piles which may once have formed one mound, since the space between appeared to have been pitted long ago. An L trench which sectioned both portions revealed similar soil conditions to those in mound 1, except that the mixed earth extended to a greater depth. Artifacts were more numerous, as were also huge stones that had to be moved with crowbars. Five whole or restorable pots were found. The first, at 1.10 meters depth, was a tiny two-handled pot with its original red and black design almost entirely eroded. The second, 1.40 meters deep, was a larger, swollen-bodied red vessel with two vertical strap handles having knobs at the bend of each. A black geometric design on the neck was almost entirely eroded. Both these vessels were lying on their sides. Nearby, at a depth of 1.30 meters, was a rather high-walled,

dull orange open bowl with a simple geometric design in red around the neck. It is chiefly remarkable because it has wavy, vertical lines down the body that appeared to have been executed in negative painting. Actually, these seem to have been formed by the disappearance of the dark red paint that once covered them. A particularly interesting little tripod vase came from a depth of 1.65 meters. Like the above, it was in an upright position. This vessel has a light orange slip, two broad black lines inside and below the lip and, on the outer wall, three prancing jaguars with raised heads and open mouths, vividly executed in purplish red and black. A black and red geometric panel separates the three identical figures (the design on pl. 12, *d*, is similar but less realistic). Among the many sherds from about the depth of 1 meter we found enough fragments to restore an interesting bowl representing a bird with head, wings, and tail projecting (similar to but more elaborate than pl. 14, *h*). The basic color is light orange, and the rim, lip, bird head and tail, as well as the median portion, have dark brown, dark red, and white designs. All but the first of these vessels were broken when found, and only two were upright. It is possible that they had been placed with burials, the bones of which had disappeared, but it seems more probable that they had been discarded with the abundant sherds and other broken artifacts. Two more partially complete vessels were so soft that they crumbled to bits when we tried to remove them.

Sherds were more abundant in mound 2 and of better quality. Cooking ware was abundant and similar to that in mound 1, but there were also present a large number of fragments from large, straight-walled vases of Mayoid type. The majority of these had heavy dark red and black designs on buff or orange, with hollow rectangular or cylindrical tripod feet. A rim with a painted twilled basketry design and several with typical Ulua conventionalized heads (on thin, hard, polished ware) occur. Skeuomorphic glyph bands also occur, and there is one painted " bird " head lug. A number of excellently painted tripod dish fragments and a number of very large dark red sherds with typical Ulua Bold Geometric designs are noteworthy. These include two broad straphandles with monkey face lugs. Two figurine heads were encountered at a depth of 1.20 meters. One of these is solid, suggesting a pouting " baby face " with hair but no head dress; the other is hollow with an elaborate head dress, having a raised St. Andrew's cross above the forehead. Both are rather badly eroded. A few roller pestles, cylindrical manos, double-ended hammerstones, two crude obsidian side scrapers, one quartzite side scraper, and a few broken prismatic flakes of obsidian complete the artifact list. The

occurrence of much charcoal and small amounts of animal bone bears out the evidence of the broken pottery in suggesting that this, too, was primarily a habitation site. Our workers, accustomed to undercutting and burrowing in general, in their zeal, ruined our trench profiles at mound 2, and we decided to try another site.

Attention may be called in passing to a small collection obtained from a rock mound similar to and very close to site 1, at La Ceiba. These objects were dug up by a local pot hunter who heard us working and visited us. They included an excellent tetrapod dish (pl. 12, *f*) with conventionalized Mayoid designs, and feet representing an alligator's head and containing rattles. The colors are dark red and black on a yellow background. A small tripod dish with low, solid feet had a textile knot design with three pairs of crudely executed "dancing figures." These two vessels are of interest since they have Mayoid designs on a vessel form usually decorated in the Bold Geometric or Bold Animalistic style. One large broken whistle of unslipped brown pottery was unusually interesting since it represented a tusked monster almost identical to one found on the Ulua at Santa Rita (pl. 13, *e*, cf. fig. 7, *p*). There were also a number of Mayoid figurine and bulbous animal whistles, including howling dogs, similar to those from the Ulua. The same mound had also yielded a rectangular and an ovoid bark beater, excellently made of polished gray stone.

Site 2

This excavation was on the southern border of the area intensively dug over 2 years earlier by J. B. Edwards. The rise or mound selected was less than 1 meter west of the remains of his headquarters shack (La Ceiba, site 2, map, fig. 20). From this point north there are a great number of irregular excavations both in mounds and in the areas between. There are numerous mounds in this immediate vicinity, and all of them are badly pitted. According to our men a very great number of pots came from this general area. The small rise or mound which we selected for work was not more than 30 centimeters high and had three irregular pot holes on its surface. It sloped slightly from the volcanic dyke on the west, extended about 18 meters to the east, and was 13 meters from north to south. Its surface was very irregular, owing to numerous volcanic rocks and to the old dirt heaps. We completed an east to west cross trench 1 meter wide through the center of the mound, but, finding that there were no regular structural details to be observed in this fashion, we carried out various extensions to the north and south. In cross-section the "mound" showed a top layer of darker soil averaging ten centimeters

in thickness. Below this was mixed brown earth containing flecks of yellow clay and innumerable large volcanic boulders. At an average depth of 80 centimeters sterile yellow clay was encountered with still more volcanic boulders, many of such great size that they could not be moved even with crowbars. Aside from various sherds and broken artifacts throughout the brown earth there were no definite floors or other evidences of artificial structure except for five groups of complete pots evidently marking graves. It proved impossible to penetrate far into the sterile clay owing to the innumerable great boulders which apparently formed part of the natural volcanic dyke.

Pottery deposit, or grave, 1 occurred just north of our cross trench on the edge of the mound. Here, at a depth of from 1 to 1.25 meters in the mixed soil just above the yellow clay and under a large number of great volcanic slabs, we found four pottery vessels (see Strong, 1937, figs. 75, 77). Three were very close together (Strong, 1937, fig. 77), and the fourth, an incense burner (not shown in the illustration), was 80 centimeters away. Three vessels were intact, but the fourth and finest (pl. 1) was broken by another bowl which had been forcibly nested in it. The broken vase, when restored, (pl. 1) was unusually interesting, since it depicted a processional group of priests calling to mind the description of Palacio (see p. 12). The first figure (pl. 1) is the high priest with the ceremonial staff; behind him is an assistant. The latter either holds a copal container or has removed the high priests' bustle with one hand and is reaching back with the other for one of the two objects carried by the third priest. These are probably incensarios, but they could possibly be obsidian mirrors or some other ceremonial objects. The three priests are followed by two musicians playing on wind instruments of an unusual type. From the attitudes of the figures, it would seem that the procession had just come to a halt prior to the performance of some rite. Further description of this vase is made unnecessary by the illustrations. The three other vessels are comparatively simple. The bowl nested in the broken vase (Strong, 1937, fig. 77 and 75, lower center) has a simple but striking black design on a cream-white background. Red and black designs occur on the lip, there is a black band inside the rim, and the under and inner slip is a dull orange. The small two-handled bowl (Strong, 1937, fig. 75, lower left) is unusually interesting since it is of the Bold Animalistic type with geometric designs around the neck, a cursive and conventionalized, twice repeated animal and circle design on the body, two handles with definite nodes on the bend, and a deep dimpled bottom. It has a bright orange slip with designs in black, dark red, and white. Thus, although the processional vase is

definitely Mayoid in form and decoration, this accompanying vessel is indubitably Bold Animalistic in type. The incensario (Strong, 1937, fig. 75, upper) is very crudely made of coarse buff pottery with dull red bands around handle and rim. From their distribution it would seem that these vessels had been laid around a skeleton, all traces of which had disappeared.

Pottery deposit, or grave, 2 occurred in our cross trench near the center of the mound at a depth of only 15 centimeters. It consisted of two vessels upright and side by side. The larger of these (pl. 13, *a*) has a bright buff slip with geometric designs in black, dark red, and bright red on neck, body, and handles. On the central body it has an extremely conventionalized monkey face with a miniature body. It is an unusually conventionalized piece of the local Lake Yojoa Bold Animalistic style. The second vessel is smaller with swollen body, slightly flaring neck, two vertical strap handles, and a small, cross-incised node on each side of its greatest diameter. It is one-color bright red and, like its companion piece, very fresh in appearance. Both vessels have dimpled bases. The larger pot contained one small ovoid bead of grayish jadeite or diorite, and the smaller pot a larger, cylindrical bead of greenish gray jadeite. The latter bead has a groove around one end and both have complete biconodont perforations. The shallowness of the deposit may indicate relative recency and the extremely conventionalized type of Bold Animalistic design on the larger vessel appears to be late (pl. 13, *a*). The fact that each vessel contained a stone bead suggests deposition with the dead, although here again all trace of human remains had disappeared.

One meter east of deposit 2 in the cross trench, at a depth of 35 centimeters, there occurred two restorable little jars of chocolate-brown ware in close association with a larger restorable pot (pottery deposit 3). One of these little straight-walled jars has three low tripod feet and is decorated with an incised diamond and dot design. The other is flat-bottomed, has two vertical lugs and a carved or sculptured design in low relief. The lugs and form strongly suggest the small pottery imitations of Ulua marble bowls, but the partially restored sculptured design seems more Mayoid. The other small jar also suggests the imitation Ulua marble bowl type (similar to pl. 14, *e*). The third restorable vessel is a typical, two-handled, local Bold Animalistic pot with a striking, heavy black and red monkey design (similar to pl. 13, *c*, and fig. 22). The broken condition of these vessels makes it uncertain whether or not they represent a grave offering. However the association of types at this depth is interesting.

Pottery deposit, or grave, 4 occurred under a mass of great rocks and consisted of three nested pots at a depth of 72 centimeters. It was located 2.5 meters east of deposit 3 in the cross trench. The upper vessel (pl. 13, *d*) was inverted over an upright, smaller, two-handled bowl, and also contained a very crude, unslipped, and slightly shoe-shaped vessel with horizontal, solid, round handles. Inside the latter was one cylindrical, thin pottery bead. The upper vessel is a striking open bowl (pl. 13, *d*) one-half of the surface of which is eroded. The original slip is dull orange, but the entire outside was covered with black, against which a thrice repeated dull orange, dark orange, and red serpent design stands out. The serpent, with bulrushlike flames darting from its nostrils, is definitely Nicoyan in style. A band of conventionalized serpent heads circle the outside of the rim and two black bands the inside. The small two-handled pot is even more eroded. It has a light orange slip, two conventionalized red and black alligator designs (similar to fig. 25) and other geometric designs on the body. The vertical strap handles have definite nodes. The coarse brown slightly shoe-shaped pot is very badly eroded and lacks all surface finish. Despite the lack of skeletal remains, this pottery deposit has all the earmarks of a funerary offering. It is particularly interesting since it contained only the local Bold Animalistic type of pottery in association with a shoe-shaped vessel.

Pottery deposit 5 consisted of several vessels uncovered in the northwest quadrant of the mound. They occurred over a triangular area 2 by 3 meters in extent and may or may not have represented one or more grave offerings. No human remains were found here or elsewhere at La Ceiba. The first vessel was a small, straight-walled bowl with a band of red frets against a brighter background around the neck. The entire middle portion of the outer body is black but much of the surface is eroded. It was found in an upright position at a depth of 45 centimeters. The next is a small, swollen pot with slightly flaring lips and small, solid, rectangular, tripod legs. It is badly eroded but has traces of black and dull buff circular designs on a dull orange background. It was found in an upright position at a depth of 30 centimeters. The third vessel is a large, badly eroded bowl found upright and wedged in among great rocks at a depth of 50 centimeters. Traces remain of an intricate but conventionalized dark red and light orange design against a black background. Like many of the Yojoa pots it has two black bands inside, below the lip. At a depth of 32 centimeters a badly eroded straight-walled vase with solid, rectangular tripod support was found upright, covered with a broken bowl. The vase had only traces of black paint on the outer

surface, but the bowl was slightly better preserved. It had an original orange slip, a band of small red horizontal chevrons outside the lip and two circular panels surrounded by a black background on the outside. The design inside these circles was gone. These vessels had evidently been broken up by roots. Nearby, at a depth of 60 centimeters, another upright bowl was encountered. It was badly eroded over its entire surface and crumbled to pieces when exposed. It seems probable that the original nature and finish of the individual pieces has more to do with their state of preservation than does their relative age or depth.

About 8 meters northeast of the mound or rise described above, and only a short distance north of the remains of Edward's " casita ", was a rough stone cairn formed by about a dozen large stone slabs lying in rather orderly fashion. We commenced a trench at this point but soon ran into innumerable great boulders, laid in no particular sort of order. The trench yielded nothing but potsherds, fragments of bulbous whistles, and a few mano and metate fragments. The other mounds in this vicinity appeared to be similar to the one we cross-trenched. Many of them were higher, but all had been so badly pitted that further excavation seemed useless.

Space is lacking to describe the potsherds from these two excavations. Elaborate polychrome types were abundant, a number of Ulua types such as rows of conventionalized heads and imitation textile and basketry designs occurred; several sherds of brown engraved ware were noted; and a number of large handles having monkey faces in relief on the bend, from red-on-buff cooking vessels, closely approximate the Ulua Bold Geometric style. A few heavy, coarse sherds with rough incisions suggest graters, and a number of ground-down disks of polychrome pottery occur. The more localized Yojoa Animalistic and Mayoid polychrome types are generally the same as those described in the complete vessels and in the Aguacate ceramic material. Complete figurines are lacking, but a brown ware fragment, from a depth of 30 centimeters, depicts a woman's breasts supported by a bar or pendant as in certain Maya stone sculptures. A few bulbous bird and animal whistle fragments are present. Heavy volcanic stone metates, both with and without tripod supports, were fairly numerous, and both roller pestles and small rectangular manos occur. An ovoid wedge or chisel, 10 centimeters in length, of hard gray-green stone is interesting. From a depth of 20 centimeters comes a flat slab of hard gray stone with a sharp, ground-down edge. Numerous prismatic flakes of obsidian, a few crude obsidian and flint side scrapers, and some red ochre, were also found. Round stone balls were fairly

numerous at the site. The occurrence of two jadeite beads has already been noted. On the whole, nonceramic artifacts are more abundant in Lake Yojoa than in Ulua Polychrome sites.

Site 3

About one-third of a kilometer north of site 2 we briefly investigated what appears to be a quite different type of mound. To reach it one proceeds through the extremely dense bush past a great number of low, pitted, rock mounds (La Ceiba, site 3, map, fig. 20). Despite its relative proximity to the lake we doubt if we could have found it without the aid of Paco. The mound in question we called the "cut-stone mound", because of the occurrence there of several large slabs which appeared to have been worked. The main structure is a rectangular platform-mound, 2.80 meters in height, with a north to south length of about 20 meters, and a breadth of approximately 10 meters. The walls of this mound rise sharply, and the top, which measures roughly 14 by 6 meters, is rather flat. The south end, which faces the lake, has a more gradual slope, but the north end and east and west sides rise abruptly. This platform-mound is set upon a low circular rise, or mound, which has an estimated diameter of almost 40 meters. It was impossible to clear this entire area with the time and men available; hence these measurements are merely approximations.

An excavation had been made near the center of the platform-mound which reached down to subsoil, a depth of exactly 2.80 meters. When cleared, the walls of this pit proved to be of brown soil containing, especially near the bottom, some potsherds and charcoal. The very bottom of the pit reached sterile yellow clay. No large rocks occurred in the walls of the pit, but we found a few just under the surface elsewhere on the platform. The local man who had dug the pit told us that he had found nothing. To the south, where the platform-mound rises from the low irregular substructure, we encountered a row of boulders which seemed to form a lower border. Ten meters farther south, still on the sloping substructure, we uncovered a number of large, flat slabs, several of which appeared to have been more or less ground into shape. These were immediately adjacent to an old excavation containing other slightly worked, flat slabs. Our workers told us that four small pots had been found in this pit. Aside from being laid flat, none of these large slabs appeared to be in any particular arrangement. Two meters farther south on the outer edge of the substructure, we encountered a row of boulders and smoothed slabs laid end to end just under the surface. These slabs and boulders formed a definite border to the substructure

which we followed for 8 meters, paralleling the south face of the inner platform-mound.

Approximately 20 meters south of the "cut-stone mound" is another, lower mound and, running west-northwest of this, is a row of regularly aligned boulders barely projecting above the surface of the ground. These extend for about 20 meters and then take a 90°-turn to the south. We lacked time for further investigation, but it is apparent that both the "cut-stone mound" and its neighbors represent a structural unit of some sort, the nature of which may only be determined by adequate clearing and excavation. The rough boulder and slab structures are similar to those at Agua Azul, to be mentioned later. Similarly, we encountered very few polychrome sherds in our brief work around the "cut-stone mound", the majority being of coarse, plain ware.

CAUSEWAY AND "CANAL" NEAR JARAL

With the exception of the concentration of burial and other mounds near Aguacate and La Ceiba, the great bush-covered plain east of the Jaral-Potrerillos road appears to be without noticeable archeological sites. At present this is the area where most of the scattered milpa farming takes place, the soil being reported as very fertile. Just to the east of this road we discovered a great causeway and "canal" which separates the ancient ceremonial center near Los Naranjos from the main agricultural area and the burial sites farther to the east (see map, fig. 20). Following up local stories of "an ancient canal to drain the lake", we visited El Eden and found that the story had a basis in fact (Strong, 1937, fig. 73). Later, guided by Miguel, we followed the entire length of this structure from where it enters the lake to its northeastern termination on the Rio Blanco (map, fig. 20), an estimated distance of 5 kilometers. With the exception of perhaps 300 meters at El Eden which are cleared, the remainder of the structure is covered with dense bush, and we had to cut our way through. It took us about 5 hours to make the trip.

The structure, which appears to be continuous, consists of a large, flat-topped causeway on the west, bordered by a definite borrow-pit or "canal" on the east. It enters the lake about one half a kilometer east of Jaral. Here the borrow-pit is 25 meters wide and the mound to the west about 8 meters wide and .75 meter high. To the east of the borrow-pit is a rise of about 1 meter. Where the mound crosses the trail from Jaral to Dos Caminos (map, fig. 20) it is about 14 meters wide and 2-3 meters in height. The ditch is not visible at this point. About three-fourths of a kilometer farther north the mound is 5

meters across and 4 meters high. The borrow-pit or ditch is 25 to 30 meters wide and is flanked by high ground to the east. At El Eden, where it crosses the road to the cemetery, the mound is 21 meters wide, 3.5 to 4 meters high on the ditch side, and 2-3 meters high on the west side. The ditch here is 9 meters wide across the bottom. About 100 meters north of this road is an apparently intentional break in the mound wall about 16 meters wide (Strong, 1937, fig. 73). About 22 meters farther on is another smaller break, perhaps worn through by an old road. With these exceptions the mound or causeway appears to be continuous throughout its entire length, though the poor visibility due to the dense bush prevented our perceiving all details as we cut our way through. About half a kilometer north of El Eden the mound, now definitely turned to the west, crosses the road, where it shows in cross-section on the east side. The ditch here is not marked. Beyond the road both mound and ditch again become very definite with fairly steep walls. Here, as elsewhere, the mound has a flat top. Both terminate in a series of mysterious, deep, dry gorges which mark the underground course of the Rio Blanco. Miguel pointed out another series of deep pits or small gorges just south of here extending to the west (map, fig. 20), which he said marked the course of another underground stream called the Jutosa. At the time of our visit (April 4) no water was visible in either stream at this point, but during certain seasons the water level is said to rise to a considerable height.

It is certain that any clear understanding of the function of this interesting causeway and "canal" will depend on an equally clear understanding of the nature and recent history of these mysterious, semisubterranean streams. Hidden amidst almost impenetrable bush and marked by precipitous canyons and yawning sink-holes, the solution of the problem of the Rio Blanco, which apparently drains Lake Yojoa by some subterranean passage, is not one to be lightly attempted. There is probably some connection between the past level of this stream and the "canal" in question. If the river level was at one time higher than at present, the "canal" would have served to irrigate a large portion of the lower plain. Strange to say, local tradition reverses this explanation and claims that the ancient Indians sought to drain the lake! Since returning to Washington, the senior author has also heard a story that a canal was dug in this vicinity about 1880 by a commercial company with some similar end in view. We have as yet been unable to secure more definite information in this regard. We are unable to state positively that the causeway and ditch are not of historic origin, but, to say the least, this seems highly improbable.

From the slope of the terrain we would estimate that the northern end of the "canal" is at least 50 to 60 feet higher than its southern termination on the lake shore, hence any attempt to "drain the lake" would be absurd. This same factor, however, would favor the theory of a great central irrigation ditch, should geologists determine that the water level of the Rio Blanco was once considerably higher than at present.

There is another possible explanation which emphasizes the continuous mound or causeway and accounts for the ditch or "canal" as merely a borrow-pit. A glance at the sketch-map (fig. 20) will show that the causeway might well have been a ceremonial or defensive structure enclosing the great mound group west of Jaral, since it extends from the steep, encircling mountains all the way to the lake. A flat area is thus entirely enclosed and in the center of this rise the great mounds of Los Naranjos (fig. 20). Here we must leave the problem, the true answer to which must depend on the cartographer, the geologist, and the adequate excavation of the archeologist.

Pyramids and Stone Statues near Los Naranjos

The dominant archeological feature on the north shore of Lake Yojoa is the extremely impressive group of great mounds, or pyramids, located about 20 minutes' easy walk west of Jaral (see map, fig. 20). This site was first described by Mrs. Doris Zemurray Stone (1934) as the southernmost known Maya city and designated Los Naranjos, after the little modern village to the west. J. B. Edwards has made what appears to be an excellent sketch map of this site based on his own explorations. He very kindly furnished us with a copy of this. So far as our own sketch map (fig. 20) is concerned, we have located and numbered these mounds in general accordance with Mr. Edwards' map, omitting, however, mounds 6 and 7, slightly east of the main group, which we did not examine ourselves. Since the Los Naranjos mounds or pyramids cover a large area and are all covered with dense forest or bush, the preparation of an accurate, surveyed map would be a considerable task. Until this is accomplished Mr. Edwards' map is the best available and, so far as our own limited explorations went, seems generally accurate. We have not reproduced it here, however, since it was primarily made for Frans Blom and will probably appear in connection with publications of Tulane University.

The Los Naranjos mounds or pyramids are of great size, as indicated by our photograph of one of the smaller terraced mounds (mound 1, pl. 16, fig. 4). Yde has overdone it, however, when he shows

a photograph (1935, fig. 4) of the sharp, natural hills behind Los Naranjos with the caption, "View of the Mounds at Jaral." His photograph, probably taken from mound 1 (pl. 16, fig. 4), overlooks the great mounds to the south which, however, are shrouded in jungle and do not show in the picture. As a result, the reader might easily assume that the natural hills which do show are the pyramids. Perhaps the translation should have been "View over the Pyramids", rather than "View of the Pyramids." Mound 1, (pl. 16, fig. 4) appears to be terraced, and we estimated its height at some 6 meters. Mound 4 (fig. 20) is much larger and higher, perhaps 8 to 10 meters. It is terraced and has a number of smaller mounds forming a court on the top. There has been considerable digging here, probably by road workers seeking paving stones, as well as by pot hunters. Sherds seemed to be scarce on the surface. The other mounds appear to be smaller than mound 4, but several of them are terraced and all are worthy of careful mapping and investigation. Owing to the dense bush, it is impossible to make adequate observations without a great deal of clearing. Since we lacked facilities for this type of work or for any large scale excavation, we limited our own activities to smaller sites on the norther border of the great group (site 1, Los Naranjos, map, fig. 20).

The occurrence of a number of fragmentary stone statues at the Los Naranjos site is particularly interesting (Stone, 1934; Yde, 1935 and 1936; and Strong, 1937). These have all been removed from their original sites, probably by road workers, who have undoubtedly broken up and carried off others. Those which we located were lying in the great plaza between the Los Naranjos mounds at three places near the Jaral-Los Naranjos trail (map, fig. 20). Probably these had once been placed on top of mound 4, or one of its neighbors, and later tumbled down by the road workers. One statue represents the body of a man or ape, with one hand resting on the hip, the other crossing the body and resting on the shoulder (pl. 16, fig. 3). Feet, arms, and the head had all been broken off long ago. The material is a hard, gray, volcanic stone, and the body at present is 1 meter high and 50 centimeters wide across the shoulders. The neck break at present measures 23.5 centimeters from front to back. The body has a primitive simplicity and grace despite its solidity. Aside from two parallel incised lines on the back, suggesting a belt, there are no other notable features. Mrs. Stone describes a similar mutilated figure with a string of beads around the neck (1934, p. 126); hence there must be at least two of these figures. Next to this stone body was a large grotesque head (pl. 16, fig. 3) which evidently belongs to the body,

although the uniform patination indicates that the original break occurred long ago. On the head the outline of breakage at the neck is very similar to that on the body. It measures 22.5 centimeters from front to back. The apelike head is disproportionately large for the body and distinctively prognathous. Anthropomorphic characteristics are the elongated and, presumably, decorated ears and a row of incised circles down the back of the head. Next to the other anthropomorphic torso with beads around the neck described by Mrs. Stone (1934, p. 126) there was a similar head. We would be inclined to regard this as identical with the one here figured (pl. 16, fig. 3), but Mrs. Stone does not mention the macrocephaly, which is so outstanding in the head here figured, and states that it had circular ear plugs. From her description of it as "thick lipped" and "soft nosed" with eroded features, the two, if not the same object, must have been similar. We saw only one head and Yde and his party none.

Mrs. Stone (1934, p. 126) calls the anthropomorphic statue a "stela", and stresses the position of the hands as representing "without a question of doubt, the Mayan sign for submission." Yde (1936, figs. 3, 4, and pp. 27-29) also figures this statue and apparently concurs with the interpretation of Mrs. Stone. In our opinion, neither the body nor the head are Mayan. Rather they appear to us as closely related to that widespread, and probably older, "Chorotegan" style of stone statue which occurs commonly in Costa Rica, Nicaragua, the highlands of Guatemala, and, rarely, on the Ulua (Lothrop, 1921). The archaic simplicity of the torso, plus the crudity and simian characteristics of the head, seem totally non-Mayan in feeling and technique. The position of the hands alone suggests a definite Maya convention, which may be relatively early but was certainly in vogue at a late period at Chichen Itza (see Tozzer, 1930, pp. 155-158). However, the same position of the arms, as well as crossed arms with the hands on the shoulders, occurs on a number of simian stone statues from Costa Rica, now in the United States National Museum. These statues, and others figured by Lothrop (1921) seem much closer to the Lake Yojoa stone figures than do the highly ornamented and definitely stylized Mayan bas reliefs or vase paintings. If the coincidence of hand position is not accidental in regard to the two types, it may well have some historic significance. The relationship of the Lake Yojoa stone carvings to the southern, "Chorotegan", type is even more forcibly demonstrated by another anthropomorphic, cylindrical, stone carving from Los Naranjos (pl. 16, fig. 1, and Yde, 1936, fig. 6). This type is identical with the rather common, anthropo-

morphic, giant "roller pestles" of northeastern Honduras (Strong, 1935, p. 148).

With the anthropomorphic head and body, we also found the stone serpent head (pl. 16, fig. 2) referred to by Mrs. Stone (1934, p. 126) and Yde (1936, p. 29). By some strange mistake, Yde (1936, fig. 28) figures a side view of the "submissive figure" which he designates as the serpent's head. This piece is 80 centimeters long and 37 centimeters wide across the broken base. It, too, is of hard gray volcanic stone. A short distance west of mound 4, we noted a cylindrical stone, 95 centimeters long, smooth on one end and broken on the other, which apparently had once formed the base of the serpent head. It would be interesting to know whether the stone serpent on the "Islita", mentioned by Yde (1936, p. 30), was of the same type. He refers to a photograph of it in his article (1936, p. 30), but there is none. The style of this Los Naranjos serpent head carving (pl. 16, fig. 2) is very well executed and distinctive, but we cannot definitely place it. It would be extremely interesting to know whether it pertains to the same period as do the anthropomorphic statues.

We did not see the various, undecorated, great stone slabs described and figured as "stelae" and "altars" by Mrs. Stone (1934, p. 127) and Yde (1936, p. 29, fig. 5). In the light of general distribution, however, we would be prone to relate these to similar erect stone slabs at Plan Grande in the Bay Islands and elsewhere on the mainland of northeastern Honduras (compare Strong, 1935, pl. 33 and pp. 160, 161) rather than to true hieroglyphic stelae of the Maya. As Yde (1936, p. 29) points out, the flat rock with irregular carved grooves on its surface in the plaza of Los Naranjos is very similar to others occurring at Tenampua (compare D. H. Popenoe, 1936, pl. 5, fig. 1). The adjacent flat rock with depressions suggesting three shallow bed-rock mortars seems more unique in this area. In a later report, it will be possible to publish adequate photographs of these interesting statues and carvings, but this cannot be done here. When the great site of Los Naranjos has been cleared, and excavations on a scale worthy of its size and importance have been commenced, more statues will undoubtedly come to light. It should then be possible to correlate them with their exact cultural horizons and thus end the unsatisfactory speculation which must always center about disassociated art objects.

EXCAVATIONS ON THE NORTHERN BORDER OF LOS NARANJOS

Just north of mound 1 is a bushy field where a considerable amount of digging has been done in the last 3 years. We chose this place for

work because Mr. Edwards reported deep, and possibly stratified, burials here, and M. K. Rittenhouse reported the finding of two pots of the old Playa de los Muertos type (pl. 15, *a, b*) amidst similar sherds at a depth of less than a meter. The surface of the field was irregular, but definite mounds were hard to find in the dense, low bush. However, ticks of all sorts were not. We selected and cleared a roughly circular mound, 18 meters wide from north to south, 21 meters wide, and 50 centimeters high, located about 100 meters north of the western end of mound 1 (map, fig. 20). East of the center line of the mound we dug a north-to-south trench 2 meters wide and 12 meters long. The west wall of the trench was later extended 3.5 meters north, and two western side trenches were dug well beyond the center of the mound.

A small portion of the long western wall of this cut is shown (pl. 16, fig. 5, and text fig. 31). A layer of dark, humous soil occurred just below the surface on the entire mound (fig. 31). Just below this, in the thick deposit of yellow-brown mixed soil we cross-sectioned the entire floor of a house (see house floor, fig. 31) composed of black, burned soil containing many sherds, metate fragments, and refuse. Beyond the edge of the diagram here shown (fig. 31), this occupation level or floor dipped, forming a level area for about 5 meters, then rose to the ground level, extending on into what appeared to be another floor or occupation level beyond the limits of the excavation. The same type of occupation level also occurred at the surface on the south end of our main trench. Our western cross trenches showed that the central floor area extended 2 meters to the west, where it again rose to the surface. No post holes occurred in our cross-section of the central house, but one was found extending below the occupation level at the north end of the central trench. No special fireplaces were noted, but charcoal was abundant. Judging from our trenches, there are numerous house floors in this vicinity, on or just below the present level of the ground. These contain the finest Yojoa polychrome and associated cooking ware sherds, along with other refuse. Here, as at Naco, an expedition engaged in other than exploratory, stratigraphic work, could easily clear entire house floors and work out the features in detail. During the first part of our work the trenches were taken down below the occupation area into the sterile, yellow clay and gravel stratum (fig. 31) which occurred at an average depth of about 1.3 meters below the surface. Polychrome sherds, stones, charcoal, burned clay, fragments of pumice, and broken artifacts occurred throughout the yellow-brown soil. The mixed soil level became darker just above the sterile layer (pl. 16, fig. 5, and text fig.

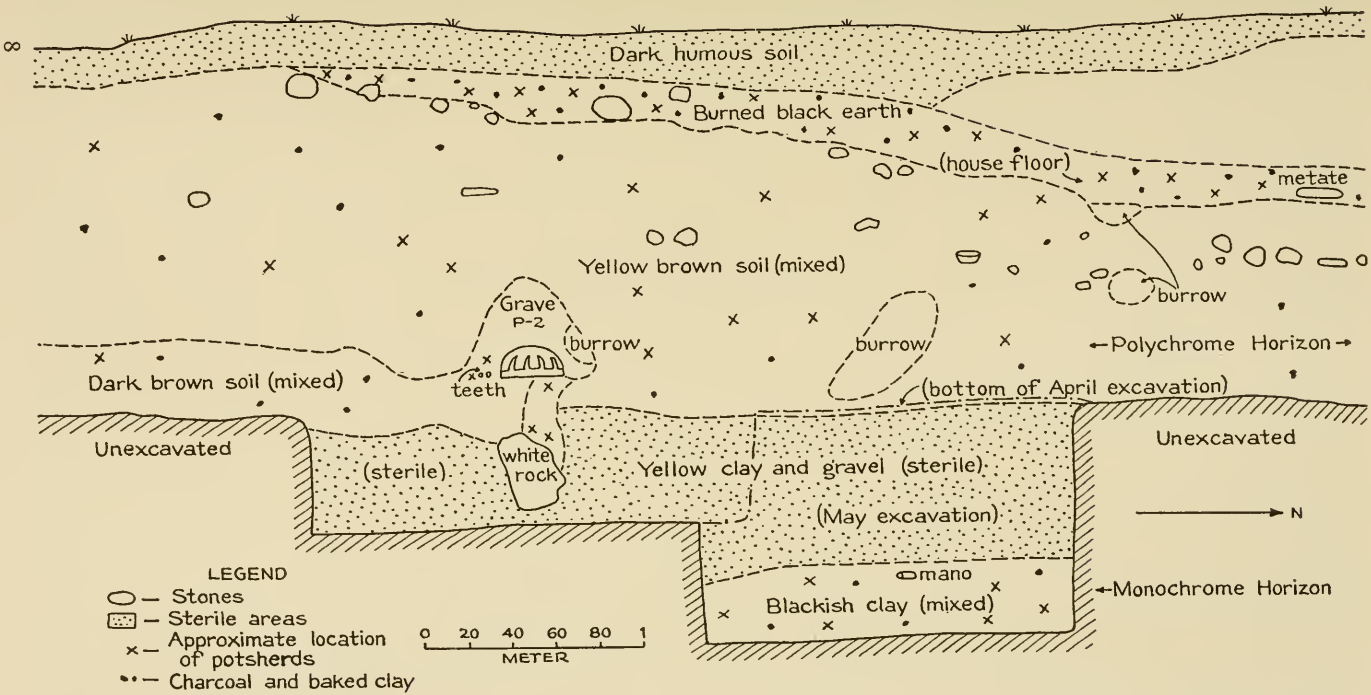

FIG. 31.—Cross-section of west wall, site 1, Los Naranjos, showing house floor, burial, and superimposed cultural horizons.

31). Below the house floors, or occupation levels, we encountered several burials (see P 2, fig. 31) of the polychrome period. For the present we will confine ourselves to a brief discussion of features and artifacts from this upper or polychrome level, later discussing the materials below the sterile stratum. All vessels and important artifacts were photographed *in situ,* but these, like our complete cross-sections and ground plans, cannot be presented here.

At the extreme south end of the main trench, at a depth of 94 centimeters, we found a small orange bowl decorated with crude red alligators and black scrolls. It was tipped on one side. No bones were present. A deposit of three vessels occurred near the north end of the main trench at a depth of 1 meter. There were two superimposed bowls, one with a cream-white slip on which were three dark red and orange designs of Mayoid type, probably conventionalized serpents' heads; the other was orange with a much conventionalized, seated Mayoid figure. These two bowls were inverted. Next to them was an upright, small, but striking, effigy bowl, modeled to represent a frog. It was brown and unslipped. This was probably a grave, occurring at the base of a refuse heap. However, no bone was found. About 2.50 meters from the south end of the trench near the west wall, at a depth of 1.45 meters, we found an interesting upright bowl (pl. 14, *d*). This was small but of the typical Santa Rita Bold Geometric olla shape and color (compare pl. 14, *d,* and pl. 7, *a*). The present vessel has the same light orange slip, with similar red semicircles inside the lips as do the monkey-handled ollas, but the geometric and conventionalized designs are in dull red with no black. The base has the marked dimple, and the handles have the lugs of the Ulua Bold Geometric olla type.

Slightly north of this pot, at the junction of one of the western cross trenches, five vessels were uncovered at depths of from 1 to 1.45 meters. This immediate area had been badly disturbed by armadillo burrowings (see grave P 2, fig. 30, and pl. 16, fig. 5), but all the vessels were evidently part of one grave offering. In between them were found a few small, crumbling fragments of human bone and three caps from human molar teeth, thus proving for the first time the presence of a burial. As can be seen from the photograph (pl. 16, fig. 5) and diagram (fig. 30) this burial occurred under the southern edge of a house floor. Only one vessel shows in the cross-section diagram, the others being just east of the trench wall. This bowl was inverted. It was fluted and had a splotchy, light orange slip, with crude red linear and geometric designs. On the inside a slightly darker orange wash has been added, leaving thin vertical

stripes of the lighter slip, thus suggesting negative painting. The bowl is blackened by fire on one side of the bottom, suggesting that, despite its thinness and fine, hard paste, it might have been used for cooking. Just east of this vessel, at a depth of 1 meter, was a crumbly red bowl containing a fragile little tripod vase with black and red decorations. Both these vessels, despite our greatest care, crumbled into tiny fragments when removed. At a depth of 1.45 meters, 30 centimeters to the south of these, was an upright incensario containing a considerable amount of charcoal. It had nine perforations and a solid, rectangular handle which had been completely hollowed out from the top. The incensario had a dirty, cream-colored slip, with both upper and lower edges outlined in red. The fifth bowl (pl. 13, *b*) was slightly to the north, at a depth of 1.45 meters, in an upright position. It has an orange slip, with a band of white below the rim and three white bands down the sides, dividing the outer surfaces into three panels (pl. 13, *b*). On the white bands are unusual geometric and curvilinear designs in dark red and, on the sides, orange. In each of the three panels occurs a most interesting prancing monkey, done in dark red. The bottom of the bowl is flat.

In the south wall of the southerly, east to west extension trench, at a depth of 64 centimeters, was an upright, two-handled, cooking pot, 22 centimeters high and of a dull yellow color. Inside this large vessel was an inverted polychrome bowl with a yellow slip, a row of red conventionalized Mayoid designs outside the lip, and three big black circles on the sides. The designs were badly eroded, but the bowl was intact. The outer vessel barely held together while being uncovered and photographed, but the moment we touched it, to remove it, it fell into over a hundred small pieces. Close to these two vessels was a dull cylindrical stone bead. On the north wall of the other extension trench, 1.25 meters deep, occurred a small open bowl of rough gray unslipped ware. At a depth of about 1 meter, near the west wall of the main trench, we found restorable fragments of a vertical walled vase with solid, rectangular tripod feet. It has a rich orange slip, divided into three parts on the sides by dark red and black linear designs. Red and black lines circle top and bottom, and each panel contains a well-executed seated Mayoid figure, with elaborate headdress, bustle, and outstretched hand, done with fine lines. Later, when this site was reopened to dig through the sterile layer searching for deeper cultural material, a small "salad bowl" type vessel (pl. 14, *g*) with an annular base, was found nearby right side up at a depth of 1.10 meters. This bowl is interesting because of its shape and because of the darker orange wash through which

horizontal and vertical lines of the lighter underslip stand out. More complicated curvilinear designs of this type occur on the inside of the bowl. This rather peculiar type of negative painting is well shown in the photograph (pl. 14, *g*).

The foregoing account, in conjunction with that of our excavations at La Ceiba, gives an idea of the manner in which vessels representing the various types of polychrome ware occur in the smaller Lake Yojoa mounds. Later, in connection with a site at El Eden, we will discuss the present slender evidence regarding the apparent vertical distribution of Yojoa polychrome pottery types in these relatively shallow sites. Although traces of human bones occurred with only one of our burials, there seems good reason to believe that the majority of these pottery caches were once with skeletons, all traces of which have now disappeared. It is further indicated that these low mounds also served as places of habitation during the polychrome period, and that burials occurred beneath the house floors. Probably, as at La Ceiba and Aguacate, many of these mounds were used, or came to be used, almost entirely for burial purposes, and it is in these that the great masses of rocks occur. Others, like the site we are discussing, served primarily for habitation, but burials also took place under and near the houses. Such habitation mounds seem to have relatively few large rocks. There remains briefly to sketch in the rest of the artifact content of the polychrome horizon at this site, and then to describe the occurrence of a deeper, older, cultural horizon which was encountered at the very end of our stay at Jaral.

The sherds from this one Los Naranjos mound site present a wide variety of Yojoa polychrome types. In addition to those already mentioned among the entire vessels are Mayoid pieces with incising as well as painting; Bold Animalistic sherds; heavy Bold Geometric sherds; polished brown carved fragments; heavy gray or buff sherds painted only on the flat upper surface with bright black, red, and orange designs (one of these is flat with a small annular base); unslipped brown grater fragments; and two cylindrical spouts of coarse brown pottery. The latter may have been carried in by the natives from older deposits since we have seen no Lake Yojoa polychrome vessels with this type of spout. One candelario fragment of coarse brown ware has three compartments and simple incised designs. There are two spindle whorls, one of plain brown ware, the other a ground-down, painted sherd. All the above come from depths ranging from the surface to 1.45 meters in depth. A complete Mayoid figure forming a whistle comes from a depth of 65 centimeters, and a bird whistle from 1.10 meters. In addition, there are numerous fragments includ-

ing broken but ornate, hollow, Mayoid effigies of fairly large size. Figurines are varied. Solid and hollow figurines with square Mayoid headdresses (like fig. 7, *b, i, s;* also see Gordon, 1898, pl. 9, *l, n, v, s*), as well as solid heads with pouting faces and simpler hair dresses, all come from depths of 1 to 1.45 meters. This latter type of simple, well modeled, solid figurine also occurs in polychrome deposits on the Ulua. Several of the Los Naranjos figurines are extremely crude, solid lumps of baked clay with grotesque, punctate faces or filleted "coffee-bean" eyes. These have a decided "Archaic" appearance but occur in the same horizon with the polychrome pottery and ornate figurines. In addition to the figurines this deposit yielded a considerable number of filleted or modeled fragments of baked clay. Many of these are quite complex but their original form is uncertain. Ground stone artifacts are fairly abundant, including flat ovoid lapstones; both flat and tripod rectangular metates (the majority with a broad grinding groove); cylindrical roller pestles (including some that taper at both ends); hammerstones; one small rock mortar; two small, sharp, jadeite celts (1-1.10 m deep); and one brown stone bead. Chipped stone artifacts are simple but relatively abundant. Large and small, fragmentary, prismatic flakes of obsidian occur. There are numbers of crude obsidian flakes, evidently used as scrapers, and a few flakes of other stone. At a depth of 1.10 meters we found the only definite projectile point encountered, a planoconvex, obsidian dart point with a slight, tapering stem. Even this brief summary indicates that these small Lake Yojoa sites are far more prolific in nonceramic artifacts than are sites on the Ulua or the Chamelecon Rivers.

The Older Horizon at Los Naranjos

Our main work at Lake Yojoa was terminated by the advent of "Holy Week." It was then necessary to move on to Playa de los Muertos on the Ulua, and then to Naco if we were to complete the survey we had outlined. We had determined the general association of polychrome wares at Lake Yojoa but had not found any marked stratification of cultures, nor had we encountered the old type of Playa de los Muertos ware (pl. 15, *a, b*) discovered in the vicinity of Los Naranjos by Mr. Rittenhouse. Despite his statement that it had been found here at depths of less than a meter, we had so far been unsuccessful in locating any remains other than those of the polychrome period. It was obviously necessary to go deeper and penetrate below the sterile yellow clay stratum encountered at our Los Naranjos site.

Therefore, in May, when the rest of the expedition went to Naco, Mr. Paul returned to Jaral for this purpose. Efforts to locate the

exact Rittenhouse site through his former workmen again proved unsuccessful. Mr. Paul therefore sank a small test trench (B) 6 meters southwest of the mound we had excavated (fig. 20). Passing through the polychrome horizon, which was removed in 30-centimeter levels, he again encountered the sterile layer of yellow clay and gravel which here averaged about 50 centimeters in thickness. Digging through this, he encountered a brownish black clay which contained a small amount of cultural admixture. All potsherds from this lower occupation level proved to be of a crude, monochrome type. This lower cultural horizon averaged about 65 centimeters in thickness, dipping toward the east end of the trench, and terminating in a very hard yellow clay which appeared to be absolutely sterile. To check these results he dug another test pit (A) 8 meters to the southeast of the same mound. Here he again encountered the same soil and cultural conditions (fig. 32), the brownish black clay below the sterile clay yielding only coarse monochrome potsherds and a few other artifacts. He then returned to our former excavation and sank a pit next to our old test cut into the sterile stratum (fig. 31). Only 25 centimeters below the lowest level of our former excavation he ran through this sterile layer into the darker clay, obtaining monochrome potsherds and a small mano. It is evident, therefore, that this direct superimposition of two cultural horizons, separated by a sterile stratum of yellow clay and gravel, extends over a considerable area. The same strata vary slightly in thickness and absolute level at the different pits (compare figs. 31 and 32), but the sequence is the same in all. Material from the lower cultural horizon is likewise uniform and may be discussed as a unit.

The deeper ceramic remains, some 700 sherds, are extremely crude (pl. 15, *c-w*). They are all of a crumbling ware, tempered with finely ground stone or sand. The apparent similarity in texture between this older ware and the poorer grade of Yojoa Polychrome, especially the cooking ware, suggests that both were made of inferior, local clays. This point may be determined later by microscopic analysis. All sherds from the old horizon seem to have come from small vessels. The thickest sherd is 1.4 centimeters, the thinnest .4 centimeter, and the majority average about .7 centimeter. Some are badly waterworn (pl. 15, *r*), and the majority have one or both faces considerably eroded. Of the 51 rim sherds, the great majority have low, slightly flaring lips (pl. 15, *c, d, f, g*). A small proportion of lips are swollen, and there are a few vertical and a few direct rims. Two sherds from the same vessel, seem to be parts of an annular base, but the remaining 30 basal sherds are all from small, flat-bottomed vessels (pl. 15 *s, u, v, w*). There are no spouts, handles, lugs, or feet in the present

sample. Only 12 sherds show definite traces of slip or paint. The others range in color from a dull buff, through dull red, to a grayish black. Despite the obvious erosion on many sherds the majority do not appear to have ever been slipped or painted, though we cannot be positive of this. The painted sherds include eight that have a faded

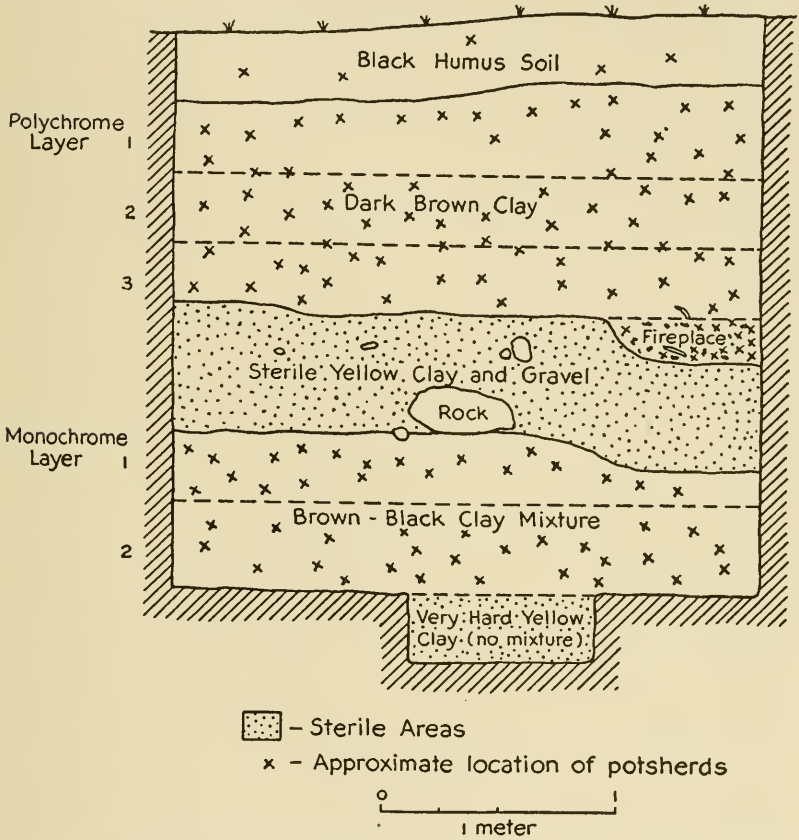

FIG. 32.—Cross-section of excavation A, near site 1, Los Naranjos, showing stratified cultural horizons.

red or pinkish slip (pl. 15, *l*); two with a dull white slip or wash; and two that have definite areas painted a very dull red and black on the inner surface. Other decorative efforts are scant. A few sherds have raised ridges below the rim (pl. 15, *i, l*), one has such a ridge with regular indentations, and a few sherds have simple, linear designs incised on the outer rim or body. If the present sample is at all adequate, this, the oldest known Lake Yojoa pottery, appears

to be the most primitive ceramic type yet encountered in Honduras. Technically, since a few sherds are painted, we should designate this ware as Yojoa bichrome. Actually, the great majority of sherds are unpainted and all of them are definitely inferior in both texture and finish to either the Playa de los Muertos Bichrome or the Santa Rita (farm 17) Bichrome wares. For this reason we have tentatively designated it as Yojoa "Monochrome", subject to change when the results of larger excavations yielding adequate ceramic samples are at hand.

Equally puzzling is the relationship of this Yojoa "Monochrome" to the two vessels excavated by Mr. Rittenhouse in this immediate vicinity. Both these vessels are well modeled, incised, and painted red and buff (pl. 15, *a, b*). Both originally had spouts. They are undoubtedly closely allied, if not identical, with the old Playa de los Muertos Bichrome (pls. 10, 11, and figs. 17, 18). Yet not one of our sherds from the deep stratum is positively of this type. We have no reason to doubt that the general location of the two Rittenhouse vessels was substantially as reported. It is apparent, therefore, that our Yojoa Monochrome is either a strangely isolated sample of crude, domestic ware, actually pertaining to the Playa de los Muertos Bichrome, or else that both Yojoa Polychrome, Playa de los Muertos Bichrome, and a new type, Yojoa Monochrome, all occur in shallow deposits on the northern borders of Los Naranjos.

Other artifacts from the older horizon at Los Naranjos included three figurine fragments (pl. 15, *e, j*). All are of solid, baked clay, and none are slipped. The crudely modeled little head (pl. 15, *e*) has a knot of hair on the back, and the body (pl. 15, *j*) has broad modeled and grooved buttocks which have been smoked black. Head and body are from different figurines. The third figurine torso is also of coarse, dull buff pottery. It is somewhat similar to the old Playa de los Muertos horizon figurine torsos (pl. 11, *t-v*), but is not so well modeled and has no breasts. Ground stone artifacts from this older Yojoa horizon include one small rectangular mano with ground sides and battered ends; one small rectangular stone (pl. 15, *n*) of unknown use; and a fragment of ground sandstone (pl. 15, *t*) which may be from a simple metate, although it has uneven grinding surfaces on the two sides. There are no true prismatic flake fragments from this horizon. There are, however, several irregular flakes of obsidian (pl. 15, *m*), and one irregular prismatic flake with a side point which also shows a use retouch. There is one rather large, gray flint side scraper and a flint flake. Here again, definite conclusions are precluded

by the small size of the present sample, but both the figurine and artifact fragments, like the pottery, show unique types.

There can be no doubt that, just below the elaborate polychrome horizon at Los Naranjos, there occurs another cultural level which appears to be surprisingly primitive. When it is remembered that our deepest excavations at Los Naranjos were slightly less than 3 meters, it can be seen that here is an area where deep excavations may yet furnish evidence regarding the truly simple cultures of Central America. On the Ulua, where we conducted our largest and deepest excavations, we were eventually stopped by reaching the water level. At Lake Yojoa this was not the case. A larger expedition, with adequate time and equipment, providing it is not led too far astray by the richer polychrome deposits, should be able to work out a most important sequence of human occupation in this immediate region.

OTHER SITES

Seeking for a deep Yojoa polychrome refuse heap suitable for stratigraphic analysis, we conducted a small excavation about 1 kilometer northeast of El Eden (see site 2, near that village, map, fig. 20). Miguel had brought us a number of polychrome sherds from this place, his sample including a dark brown and highly polished tripod bowl fragment with delicate geometric incisions on the body, an incensario fragment with rather elaborate geometric painted designs, and a small whistle shaped like a turtle. This sherd deposit was located in the abrupt face of a steep bank terminating a small, densely wooded arroyo. This arroyo led down toward one of the deep sink-holes which here mark the course of the Rio Blanco. The region is a maze of small, abrupt canyons or sink-holes, and is covered by unbelievably dense bush.

We dug a trench, 3.5 meters long and 1 meter wide, along the face of the bank, encountering our first potsherd at a depth of 40 centimeters. From this point down all artifacts were segregated according to horizontal levels averaging 30 centimeters in depth. Unfortunately, only three levels were encountered when we ran into sterile yellow clay. The exposed surface of the bank below this point appeared devoid of any human detritus. The upper 30-centimeter level contained a number of well-executed fragments of polychrome ware with highly conventionalized Mayoid designs. A tripod leg proved to belong to the dark brown and incised dish fragment secured earlier by Miguel. A number of heavier polychrome sherds had geometric designs in red and black, suggesting the Bold Geometric Ulua type,

but no definite Bold Animalistic sherds occurred. Crudely painted and occasionally incised sherds of domestic ware were fairly abundant in all levels. The middle layer yielded one conventionalized Mayoid sherd similar to the above, and a considerable number of red and black or orange sherds with designs suggesting the Bold Geometric. Definitive Bold Animalistic designs were lacking. The bottom level was similar but lacked both definitive Mayoid or Bold Animalistic designs, although several badly eroded polychrome sherds may have been of these types. To sum up, the El Eden polychrome site proved negative so far as any obvious stratification of ceramic types was concerned. The absence of definite Bold Animalistic type sherds is interesting but hardly significant, owing to the small sherd sample.

At excavation B, Los Naranjos (near site 1, map, fig. 20), a similar stratigraphic excavation was made. Here, again, only three 30-centimeter levels of polychrome sherds were obtained, the depth of the upper Yojoa Polychrome deposit being similar to excavation A (fig. 32). The top level contained rim fragments of small bowls, many of which had thickened lips. These sherds have conventional and rather massive red and black designs on orange and, in one case, white, backgrounds. Three basal fragments, one flat, one dimpled, and one annular, occurred. The latter is a dark brown, almost black, overfired piece. The middle level contained sherds with similar, conventionalized Mayoid designs, and a few with well-executed and isolated serpent motifs. A few sherds from this level are of the Bold Animalistic type. Basal fragments include two flat and two dimpled bottoms. The lowest sherd level included a bowl fragment with an elaborate open-winged bat (like pl. 3, *b;* Gordon, 1898). Several rim sherds from vertical-walled Mayoid vases have rows of typical Ulua conventionalized faces, and a fragment of a tripod plate has a similar design motif. In addition, there are a number of dull orange sherds with more conventionalized black and red geometric designs. From this lowest level comes a splendid Mayoid vase (pl. 12, *a*) encountered in a broken condition at a depth of 1.25 meters in the original excavation B test pit. This vase, with a definite rim, marked entasis, and a flat bottom, has an orange slip with complex anthropomorphic and glyph designs in brownish yellow, purplish red, and black. Thus, although the evidence is slender, there is some suggestion that the Lake Yojoa Polychrome wares exhibit the same trend from the more realistic to the conventional as was true of Ulua Polychrome pottery decoration. The occurrence at La Ceiba of both an extremely conventionalized Bold Animalistic vase (pl. 13, *a*) at a depth of only 15 centimeters, and a splendid, realistic Mayoid

vase (pl. 1) at a depth of 1.25 meters furthers this possibility. That both the more realistic and the more conventional aspects of the Mayoid and the Bold Animalistic tradition occur in the shallow Lake Yojoa Polychrome sites is certain. Their exact interrelationship, however, remains to be demonstrated.

Two other sites on the north end of Lake Yojoa may be briefly mentioned. The first of these is a little island, called merely, La Islita. It is near the shore between Jaral and Agua Azul (see map, fig. 1). Yde (1936, p. 30) describes a stone serpent head from this place which, subsequent to their visit, was reported to have been smashed by natives looking for treasure. He refers to, but does not reproduce, a photograph of this statue. Our guide brazenly showed us a simple cylindrical statue, apparently anthropomorphic and about 1 meter tall, the head and face of which had been completely smashed by him in a futile search for treasure! Only a carved ear remained and the rounded pediment which was like the simplest statue at Los Naranjos (pl. 16, 1). He did not know of the stone serpent head but claimed a similar anthropomorphic statue had been taken from the island to Tegucigalpa. Another man told us of a stone serpent head that had been found on this island, but said that local people had thrown it in the lake! The island is very steep and densely wooded. On top of one of the hills are a number of low, irregular mounds, some of which are covered with rock slabs. Our guide had dug pits in several of these and claimed to have found a few pieces of painted pottery. The soil of the mounds is a red clay. Aside from a few coarse brown sherds we saw no pottery at the site. There are said to be other mounds of a similar nature on the island, which we did not see. It is sincerely to be hoped that this interesting site may be scientifically worked by archeologists before it is completely ruined.

The other site is a group of three impressive mounds located in the open pine and savannah country about 2 kilometers northwest of the ranch house at Agua Azul (see map, fig. 1). The largest mound, to the north, is conical with a flattened top. It is approximately 7 meters high by 9 meters across, and is flanked to the west and south by a terrace edged with straight walls of large boulders about 1 meter in height. The west wall is about 5 meters from the edge of the mound and the south wall about 6 meters from it. The south wall is composed of several thicknesses of stone and terminates just east of the center of the mound. The west wall is only one stone thick and terminates just beyond the north edge of the mound. About 10 meters south of the edge of this terrace are two more parallel mounds. The mound to the east has an approximate length of 7 meters, and a

height of 5 meters. The mound to the west is smaller and steeper, being about 4 meters long and perhaps 3 meters high. Local men from Siguatepeque have excavated a small hole in the terrace south of the big mound and a large trench, 5 meters wide and nearly 6 meters deep, on the west side of the same mound. The earth wall of this trench shows successive curving layers of black charcoal, suggesting that the mound had been built up at different times and the remains of fires on the top had been scattered down the sides. The small pit on the terrace showed nothing. We were unable to find any potsherds, either in the cut or on the surface. According to local report the original diggers encountered nothing but a very little broken pottery. This is a striking mound group and, as already mentioned, seems similar in some ways to the " cut stone mound " which is buried in the dense bush near La Ceiba (site 3, map, fig. 20).

This concludes the list of sites visited by us around the north end of Lake Yojoa. We have since heard that local pot hunters have opened up a new series of ancient cemeteries between La Ceiba and Agua Azul. Other sites are reported in the mountains to the north (see map, fig. 20), at Saucé, and elsewhere around the lake, but we lacked time to visit these.

SUMMARY AND TENTATIVE CONCLUSIONS

The present reconnaisance of the Ulua-Yojoa region opens promising vistas. It reveals incomplete but considerable sequences of local development, and it demonstrates that the interplay of northern and southern cultural forces, so strongly suggested by linguistic, ethnographic, and historic sources, is very definitely reflected in the archeological record.

Since ceramic remains constitute the most abundant and helpful guides in attaining any understanding of the development of the prehistoric cultures of northwestern Honduras, we may preface our brief summary by a table showing the sequence and groupings of Ulua-Yojoa ceramic types as known at present (table 1). Of these the Naco Polychrome is definitely historic and represents, apparently, the late Nahuatl occupation of the region. Spinden, Tozzer, Mason, and Vaillant, who have examined this material, state that it appears to be related to certain late prehistoric wares of Mexico. Naco Polychrome pottery will probably be found at other sites occupied or influenced by these intrusive Nahuatl peoples. It may occur at Tenampua (compare Popenoe, 1936, p. 572 and fig. 2). In the same way that the occurrence of Spanish crockery in association with Naco Polychrome sherds connects the site with the historic period, so the occurrence of

simply decorated Ulua Polychrome sherds (pl. 3, *b*) in Naco refuse mounds indicates that other, local cultures were contemporaneous in the region. Little attention has as yet been paid to the historic and late prehistoric cultures of the Jicaque and other local inhabitants of northwestern Honduras.

TABLE 1.—*Apparent Sequence of Ceramic Types in Northwestern Honduras.*

	Ulua	Yojoa
Historic:	Naco Polychrome	
Prehistoric:	(surface mounds?)	
(late) ↓	Ulua Polychrome (including) Mayoid {Upper / Lower}; Bold Geometric {Upper / Lower}	Yojoa Polychrome (including) Mayoid; Bold Animalistic
(to)		
	Ulua Bichrome (Santa Rita)	(here?)
	Playa de los Muertos Bichrome (P.d.l.M.)	Yojoa "Monochrome" (Los Naranjos)
↓ (early)		(or here?)

TABLE 2.—*Probable Correlation between present Ulua Polychrome Classification (Table 1) and those of Gordon (1898) and Vaillant (1927)*

Ulua Polychrome	Upper Mayoid	Gordon's B	Vaillant's III and IV
	Upper Bold Geometric	Gordon's C	Vaillant's V
Ulua Polychrome	Lower Mayoid	Gordon's A	Vaillant's I and II
	Lower Bold Geometric	Gordon's C	Vaillant's V

The prehistoric polychrome wares of the Ulua have been classified on typological grounds by Gordon (1898), and by Vaillant (1927). In general their classifications seem to accord with our stratigraphic findings as above (table 2). Gordon clearly distinguished the Bold Geometric as Type C, and the Mayoid as Types A and B, but has nothing to say regarding sequence. Vaillant makes a mistake when he assumes, on stylistic grounds, that the Bold Geometric (Ulua Polychrome V) developed out of the Mayoid style and was therefore later. Strong makes the same mistake in regard to the related Bay Island

Polychrome I (Upper Mayoid, plus southern influences) and the identical Bay Island Polychrome II (Upper Bold Geometric) (1935, p. 145). Actually the Mayoid and the Bold Geometric have been shown to be parallel developments; thus Vaillant's Ulua Polychrome V is contemporaneous with his Ulua Polychrome I and II (his Ulua Polychrome IV contains both Upper Mayoid and Upper Bold Geometric constituents), and Strong's Bay Island Polychrome I is, in all probability, contemporaneous with his Bay Island Polychrome II. Vaillant (1927, p. 266) was careful to point out the entirely tentative nature of his assumed sequences. Further, in regard to the Ulua Polychrome V (and Salvador Polychrome VI) he states: "There is a strong suspicion of the same non-Maya factors influencing both these styles. The source of the influence is not discoverable in Maya districts, and one thinks vaguely of the south and east, of Nicaragua, eastern Honduras, and Costa Rica to locate a source" (1927, p. 170).

Recently Tschopik (1937), in a brief but valuable analysis of textile motifs on Gordon's Ulua Polychrome pottery, has independently pointed out this stylistic dichotomy. He groups Vaillant's Ulua Polychrome I-IV as Ware A [Mayoid], and the latter's Ulua Polychrome V as Ware B [Bold Geometric]. Tschopik points out that there are consistent differences in both form and decoration between the two, and that A is Mayoid, whereas B has a definite relationship in form and decoration with ceramic types from Salvador, Nicaragua, and Costa Rica. He, too, repeats the theory that naturalistic designs are apt to be earlier than geometric, suggesting that Ware A is earlier than Ware B, thus falling into the same error as Vaillant and Strong.

At Santa Rita these two major styles (Mayoid and Bold Geometric) are intermixed throughout almost 4 meters of Ulua Polychrome deposits. Although they blend in certain intermediate types of vessels, each style in general keeps to its own particular genius, and each shows a parallel development from a finer and somewhat more realistic decoration in the lower levels, to a more conventionalized and geometric decoration in the upper levels. Thus, the Lower Mayoid has priestly, processional, and "dancing" figures in open panels, whereas the Upper Mayoid has florid, conventionalized, over-all designs, geometric motifs and, often, animal head lugs. The Lower Bold Geometric has intricate linear and geometric designs with remarkable, cursive animals or birds in open panels, whereas the Upper Bold Geometric becomes simpler, drops the animals, but retains textile and geometric designs. At Las Flores, also, both the Mayoid and the Bold Geometric styles occur in the same excavation, but here both are of the upper and later, conventionalized type. It is worth noting that the only

metal object recovered in any of our excavations, a small copper fish-hook, came from these levels at Las Flores. The Ulua Polychrome horizon overlying the deep stratum at Playa de los Muertos is also late. Here only the Upper Mayoid and Upper Bold Geometric occur. It is undoubtedly significant that the typical, swollen, monkey-handled olla form of the Bold Geometric tradition (pl. 7, *a-d*), and the vertical-walled vase form of the Mayoid tradition (pl. 8, *a-b*), both persist practically unchanged throughout the entire Ulua Polychrome series. This occurrence argues rather strongly against any very considerable time period being assigned to the Ulua Polychrome period.

The polychrome wares of Lake Yojoa are closely related to those of the Ulua. Not only does Yojoa Polychrome ware contain a large number of forms and motifs identical with those of the Ulua Polychrome, but it also manifests a very similar division into two major stylistic traditions. In general, however, Ulua and Yojoa Polychrome ware vessels are distinguishable. The Yojoa Mayoid type, as well as the Bold Animalistic type, finds many close parallels in polychrome vessels from eastern Salvador (see Vaillant, 1927, figs. 35-40). It seems strange that no Plumbate ware whatsoever was recovered in any of our excavations, either on the Ulua or at Lake Yojoa. The Bold Animalistic type from Lake Yojoa differs from the Ulua Bold Geometric in the relative rarity of monkey-handled ollas and the prevalence of bird, monkey, alligator, and other animal design motifs. Regarding the internal development of Yojoa Polychrome ware decoration, there is some very slight evidence that it parallels the trend of the Ulua Polychrome series from better executed realistic, to conventional and geometric design. However, the 1½ meters of Yojoa Polychrome deposits so far investigated have not as yet yielded very satisfactory evidence in this regard. The fact that Ulua Polychrome deposits occur throughout 3 to 4 meters of alluvial and cultural deposition, whereas the known Yojoa Polychrome refuse deposits are less than 2 meters in depth, is undoubtedly significant. In our opinion, however, this discrepancy is probably due to the very different physiographic conditions in the two regions, rather than to differences in time.

Of the three wares that have been stratigraphically established as earlier than the Ulua-Yojoa Polychrome series, the Playa de los Muertos Bichrome (table 1, and pls. 10, 11) is the most clearly defined. This is the type D of Gordon (1898). Vaillant (1934) has pointed out that this horizon contains a majority of traits, mainly ceramic, that are characteristic of the Q complex. It is undoubtedly significant that, whereas Playa de los Muertos Bichrome ceramics

represent an advanced pottery type so far as texture, surface finish, modeling, and incising are concerned, they appear to mark an experimental and inept stage in the use of surface painting. Especially characteristic of this horizon are highly polished, modeled and spouted forms; flat-bottomed, vertical-walled vases; low dishes with flaring incised walls or everted, flat, incised lips or both; and solid female figurines, which may or may not have a white slip. There is considerable resemblance between the simple but effective modeling of these figurines (pl. 11, *t, u, v*) and the stone statue of a man or ape at Los Naranjos, Lake Yojoa (pl. 16, fig. 3). These traits, plus the occurrence of jadeite artifacts and the varied experiments with painted decoration, all indicate that here was an early and potent cultural manifestation of more than local significance. In so far as data are available (R. E. Smith, 1936, and Uaxactun sample sherd collections), we see considerable resemblance between this Playa de los Muertos Bichrome ware and the two earliest stratigraphic periods at the old Maya city of Uaxactun. These have been termed Mamon and Chicanel, and both precede the Maya Polychrome period.

The determination of the northern and the southern extent of the Playa de los Muertos horizon is one of the important problems in Middle American archeology. Even more important is the determination of the simpler ceramic horizons from which it developed. In Honduras we have as yet no clues to this earlier period unless the so-called Yojoa "Monochrome" (pl. 15, *c-w*) is as truly primitive as it superficially appears, and can be demonstrated as stratigraphically earlier than the developed Playa de los Muertos culture. The later break, between the Playa de los Muertos Bichrome and the Ulua Polychrome, is in part bridged by the deepest cultural horizon at Santa Rita containing Ulua Bichrome ware. The most outstanding feature of the Ulua Bichrome ceramics is the presence of Usulatan ware sherds. According to Lothrop this is "the earliest painted pottery now known from Central America", and, although it occurs occasionally in the form of trade pieces at Old Empire Maya sites, it seems to center in Lenca territory in eastern Salvador (1933, pp. 47-51). There is rather close resemblance between our Usulatan sherds with short, solid legs (pl. 9) and the early Chukumuk pottery from Lake Atitlan in the highlands of Guatemala (Lothrop, 1933, p. 49). Similarly, the tetrapod Usulatan bowl recovered by Gordon at a depth of "26 feet" in his Playa de los Muertos excavations is of an identical type. Thus, there is a linkage in this regard between the deep horizons at Playa de los Muertos and at Santa Rita, despite the fact that our own sample of Playa de los Muertos Bichrome ceramics

contains no definite Usulatan ware. In addition, this clear linkage between early Ulua and early Guatemalan highland cultural horizons is of great interest. We have assumed that Ulua Bichrome is somewhat later than the Playa de los Muertos Bichrome on stylistic grounds and because the sterile area separating the former from the Ulua Polychrome is thin compared to that separating the Playa de los Muertos Bichrome from the overlying Ulua Polychrome (compare fig. 6, and fig. 16). This, however, is at best a dubious procedure, since we do not as yet know the physiographic nature of either sterile stratum. Moreover, it must be remembered that only the Upper Mayoid and Bold Geometric Ulua Polychrome types occur in the overlying cultural stratum at Playa de los Muertos, whereas both these and the earlier Lower Ulua Polychrome wares occur above the Ulua Bichrome at Santa Rita. These details, like the cultural and temporal placing of the puzzling Yojoa "Monochrome" ceramics and the "Chorotegan" stone statues at Los Naranjos, must await further excavation.

Tracing the relationship of the native cultures of northwestern Honduras backward from the known historic, we have already verified the presence of a late Nahuatl migration from Mexico through the finds made at Naco. Similarly, in the Ulua Polychrome period we find two interlocked but distinct styles occurring in the same sites, the Mayoid and the Bold Geometric, which at Santa Rita persist and develop simultaneously over a considerable period. Lake Yojoa Polychrome is also composed of a Mayoid and a so-called Bold Animalistic tradition. This original fission and subsequent parallelism of both Ulua and Yojoa Polychrome ceramic development has obvious sociological as well as archeological implications. At both Ulua River and Lake Yojoa Polychrome sites one of these styles is Mayoid and the other is of southern origin. For linguistic and ethnographic reasons previously discussed, it seems highly probable that the Bold Geometric element of the Ulua Polychrome was contributed by Jicaque peoples, whereas the very similar Bold Animalistic element in Yojoa Polychrome was due to the related Lenca. Since the Mayoid element comprises about one half of the Ulua and Yojoa Polychrome ceramic remains, it can hardly be explained as due solely to trade or indirect influence. It seems far more logical to assume that intermixed Maya, Jicaque, and Lenca peoples were living together at these sites and that perhaps the pottery-makers of each ethnic group clung to their own art styles over a considerable period. The quite remarkable florescence and the high and complex artistic attainments of the Ulua

and the Yojoa Polychrome periods are in all probability the direct results of this cultural and physical amalgamation.

We have at present no means for dating the exact period represented by these Lenca and Jicaque styles which apparently stem from Nicaraguan and Nicoyan culture centers to the south. On the other hand, there is in the nearby Maya city of Copan a series of dated monuments ranging from 9: 11.0.0.0 (stela 3) to 9: 17. 12.0.0. (stela C) (or, roughly, according to the Goodman-Thompson-Martinez correlation, between 650 and 800 A. D.), in association with which there occur pottery vessels (Vaillant, 1927, and Lothrop, 1933, p. 66 and 1936 b, p. 69). We have attempted to correlate our Ulua and Lake Yojoa Polychrome series with Vaillant's classification of Copan wares, but owing to the selective nature of the Copan collections, as well as the paucity of illustrative material, this has proved impracticable for the present. The Copan ceramic series in the Peabody Museum, as a whole, seems quite distinct from the Ulua-Yojoa Polychrome wares, although numerous similarities do exist. Vaillant points out the occurrence of Ulua Polychrome sherds at mound 36 in Copan, a point we were able to verify for ourselves at the site, but there is reason to believe that these deposits are later than the Copan series or perhaps intrusive. According to Vaillant (1927, p. 271) the trend of the Ulua Polychrome wares "suggests the years after the fall of Copan." If this is the case, it may serve to point out when the Maya Old Empire dispersal into Salvador and northwestern Honduras took place and how their developed polychrome wares came to be grafted on to those of the Lenca, Jicaque, and, probably, the Pipil, with whom the various Maya groups settled. When adequate stratigraphic studies of the entire range of Copan ceramics have been made and correlated with the ceremonial series from the stelae vaults, described by Vaillant, there is reason to believe that the Ulua-Yojoa Polychrome series may also be approximately dated.

Such excavations should also throw light on the origin or derivation of the southern Mayoid Polychrome ceramic tradition. Did it arise from a groundwork similar to the Playa de los Muertos culture in the Peten, perhaps at Uaxactun or Holmul, spread from there to Copan, and thence to Salvador and the Ulua? Or are there intermediate stages between the developed Polychrome and the Playa de los Muertos horizons present but as yet unknown in Honduras, at Copan, or in Salvador? An even more basic problem concerns the suggested relationship between the ceramics in the oldest horizons at Uaxactun in the Peten and Chukumuk in the Guatemalan highlands, with the Playa de los Muertos Bichrome and Ulua Bichrome

wares respectively. Lothrop (1933, p. 62) believes that the elements shared in common by the earliest known cultural horizons in the highlands and the Atlantic lowlands of Guatemala were derived, not from one another, but from a parent culture to the south. When the Uaxactun materials are available, the rôle of the southern Playa de los Muertos culture as a donor or a recipient may be tested. These are questions for the future but, thanks to the growing scientific vogue of the shovel, they are questions that may soon be answered.

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EXPLANATION OF PLATES

Plate 1

Processional figures on a Yojoa Polychrome vase, Mayoid type. Site 2, La Ceiba (13.2 cm high).

Plate 2

Various Chamelecon and Ulua River sites

Fig. 1. Fragment of ball court ring *in situ*, Naco.
Fig. 2. Thin plaster walls, heart of mound 3, Naco.
Fig. 3. Excavation 1 and start of excavation 2 (right) at Santa Rita (farm 17).
Fig. 4. Site at Tres Piedras, showing mounds and plaza cross-sectioned by Chamelecon River.

Plate 3

Naco sherds

a, *c-w*, Naco Polychrome; *b*, Ulua Polychrome sherds found at Naco.

Plate 4

Naco sherds and artifacts

a, incensario; *b-g*, figurine fragments; *h*, whistle; *i*, *j*, spindle whorls; *k*, obsidian flake knives; *l*, clay bobbins; *m*, Spanish colonial crockery; *n-p*, textile-marked sherds; *q*, *s*, *t*, *u*, *v*, *x*, *y*, *z*, sherds with molded or carved designs; *r*, incised sherd; *w*, "candelarios."

PLATE 5

Upper Ulua Polychrome pottery types, Las Flores

a-e, Las Flores painted and incised vase sherds; *f-m,* Upper Mayoid type sherds; *n,* sculptured or molded Mayoid sherd.

PLATE 6

Upper Ulua Polychrome pottery types, Las Flores

a, human effigy (16.5 cm); *b,* vessel with "vestigial" spout (14 cm); *c,* Upper Mayoid jar (7 cm); *d,* sculptured or molded Mayoid jar (6.5 cm); *e* (5 cm), *f* (6.5 cm), jars of imitation Ulua marble bowl type.

PLATE 7

Ulua Polychrome, Bold Geometric pottery types, Santa Rita

a, Bold Geometric olla (12 cm); *b* (22 cm); *c* (30 cm); *d* Lower Bold Geometric olla type (30 cm); *e,* Bold Geometric tripod dish (7.5 cm); *f,* Bold Geometric tripod dish (10 cm). (*a-e,* Santa Rita; *f,* Naranjo Chino.)

PLATE 8

Ulua Polychrome, Mayoid pottery types, Santa Rita

a, Lower Mayoid type vase (20 cm); *b,* Lower Mayoid type vase (20 cm); deer effigy pot cover (19.5 cm); *e,* Mayoid type vase (17.8 cm); *e, f,* tripod plate, type uncertain (14.5 cm).

PLATE 9

Ulua Bichrome sherds, deepest level, Santa Rita

a-j, various sherds; *k,* obsidian scraper; *l,* pottery stamp; *m,* obsidian flake knife fragment; *o-s, u-z, aa, bb,* Usulatan ware sherds; *t,* Lower Mayoid type sherds from just *above* sterile sand layer; *cc,* red-on-white sherd.

PLATE 10

Playa de los Muertos Bichrome sherds

a-h, polished orange-red to brown; *i-n,* polished dark gray to black; *o-s,* polished slate-gray to buff. (Lower cultural horizon, Playa de los Muertos.)

PLATE 11

Playa de los Muertos sherds and figurines

a-e, sherds with chalky white wash; *f, g, k,* red and black; *i, j, o,* red on buff; *h,* unslipped brown and red; *l, m,* red on white; *n,* gray on dull red; *p,* polished brown face; *q, r, s,* polished figurines with white slip; *t, u, v,* solid brown figurines (lower cultural horizon, Playa de los Muertos).

Plate 12

Yojoa Polychrome vessels, Mayoid types

a, excavation B, Los Naranjos (25 cm); *b*, Aguacate (16.3 cm); *c* (10.7 cm); *d* (10.5 cm), Aguatal; *e*, Aguacate (9.5 cm); *f*, La Ceiba (12 cm).

Plate 13

Yojoa Polychrome vessels

Bold Animalistic type: *a*, La Ceiba (15 cm); *b*, site 1, Los Naranjos (12.5 cm); *c*, Aguatal (10 cm); *d*, La Ceiba (11 cm); *e*, Effigy (type ?, compare fig. 7, *p*, p. 52), La Ceiba (11 cm); *f*, Mayoid type, Aguatal (11.5 cm).

Plate 14

Yojoa Polychrome vessels

a (10.7 cm); *b* (10.2 cm), Bold Animalistic type, Aguacate; *c* (8 cm); *d* (10 cm), Bold Geometric or Bold Animalistic types, Aguacate and Los Naranjos, site 1; *e*, imitation Ulua marble bowl type, Aguacate (6.7 cm); *f*, carved brown ware, Aguacate (7.3 cm); *g*, bowl with negative painting, Los Naranjos, site 1, (6 cm); *h*, bird-shaped pot, Aguatal (7 cm).

Plate 15

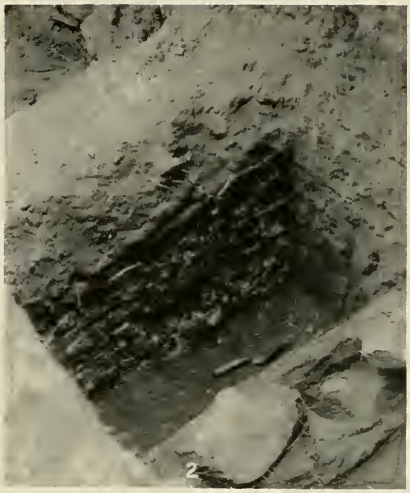
Early ceramic types at Lake Yojoa

a (11 cm); *b* (12 cm), Playa de los Muertos Bichrome type (?), Los Naranjos (exact provenience uncertain); *c, d, f-i, k, l, o-s, u-w*, Yojoa "Monochrome" sherds; *e, j*, figurine fragments; *m*, obsidian flake; *n, t*, ground stone artifacts. (*c-w*, lower cultural horizon at Los Naranjos, site 1, and excavations A and B.)

Plate 16

Los Naranjos, Lake Yojoa

Fig. 1. Crude anthropomorphic statue.
Fig. 2. Stone serpent head.
Fig. 3. Stone torso and head.
Fig. 4. Mound 1, from the north near site 1.
Fig. 5. Section of trench at site 1, showing house floor and burial.



VARIOUS CHAMELECON AND ULUA RIVER SITES

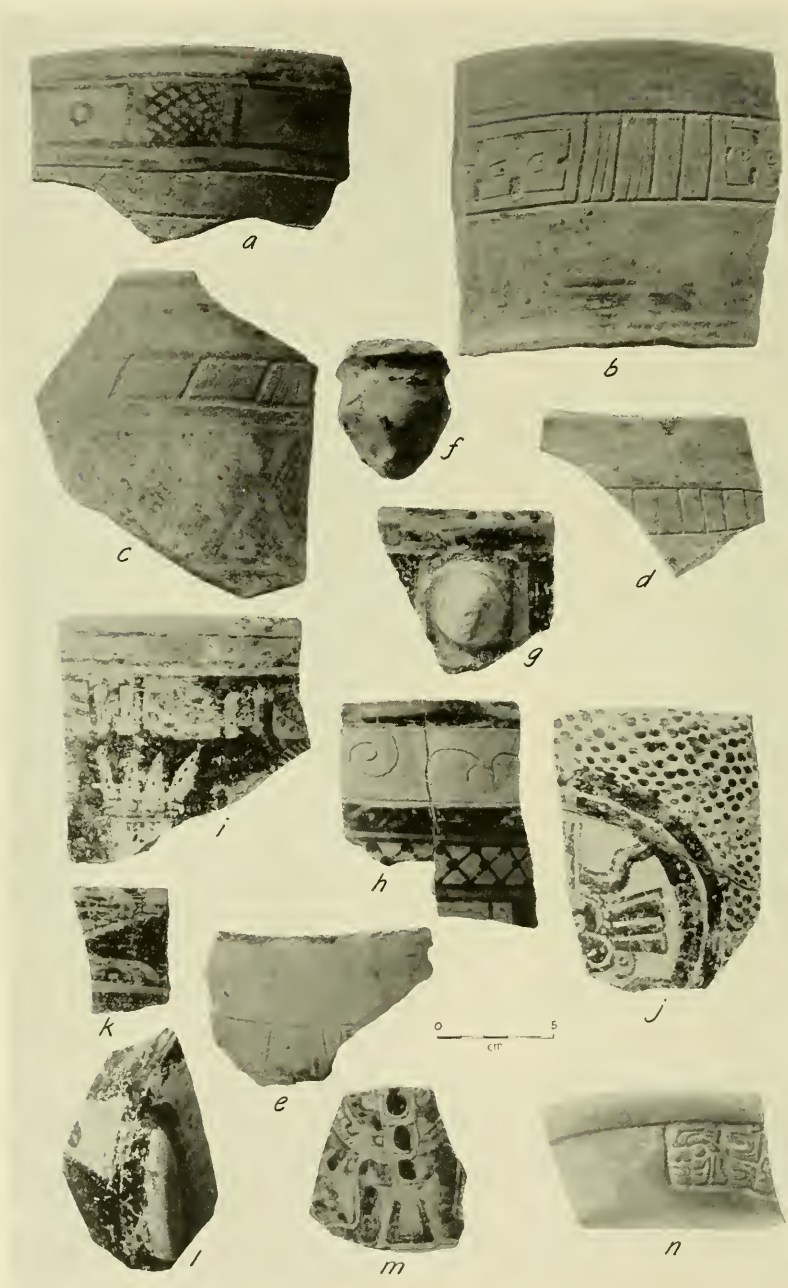
1, Ball court at Naco; 2, mound structure at Naco; 3, excavation at Santa Rita (farm 17); 4, Tres Piedras site.

NACO SHERDS

b, Ulua Polychrome sherds at Naco.

NACO SHERDS AND ARTIFACTS

m, Spanish colonial sherd at Naco.

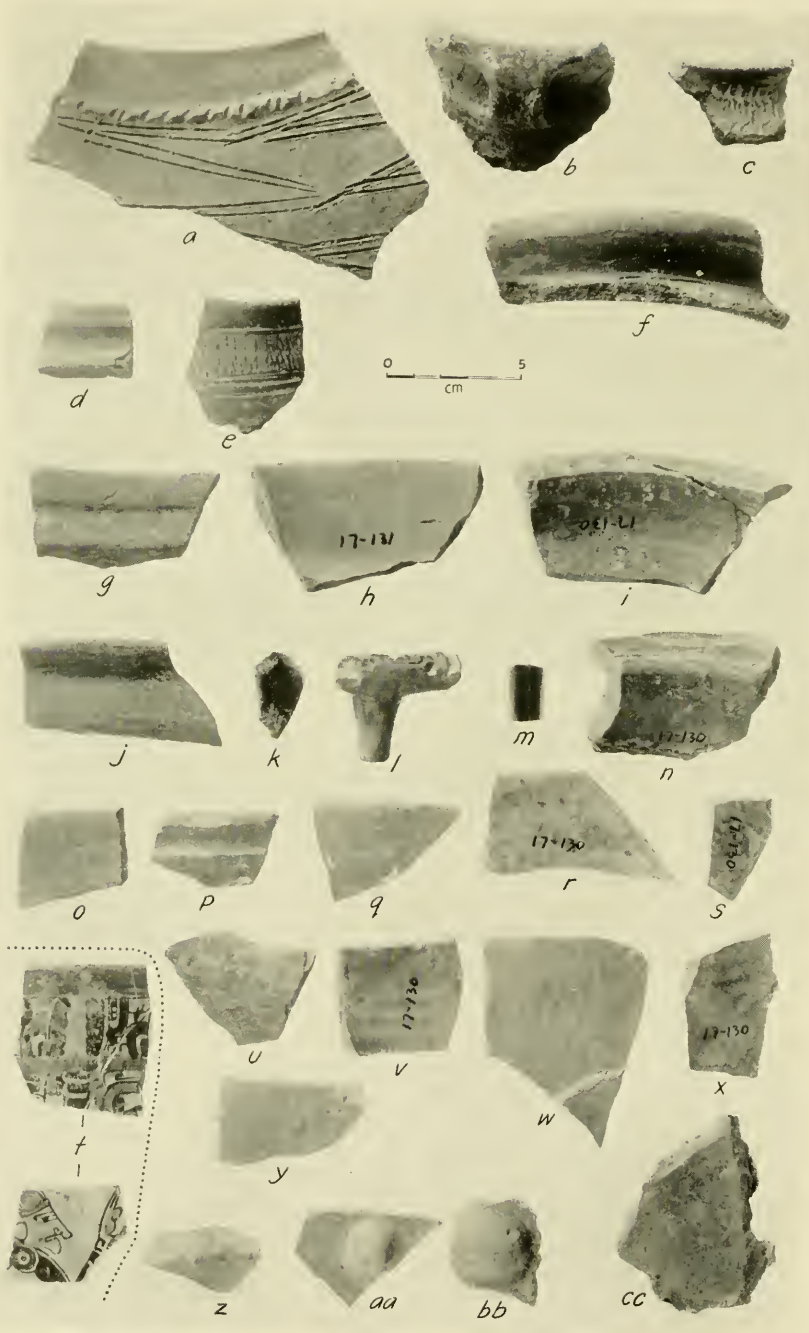


UPPER ULUA POLYCHROME POTTERY TYPES. LAS FLORES

UPPER ULUA POLYCHROME POTTERY TYPES, LAS FLORES

ULUA POLYCHROME, BOLD GEOMETRIC POTTERY TYPES. SANTA RITA
f, Naranjo Chino.

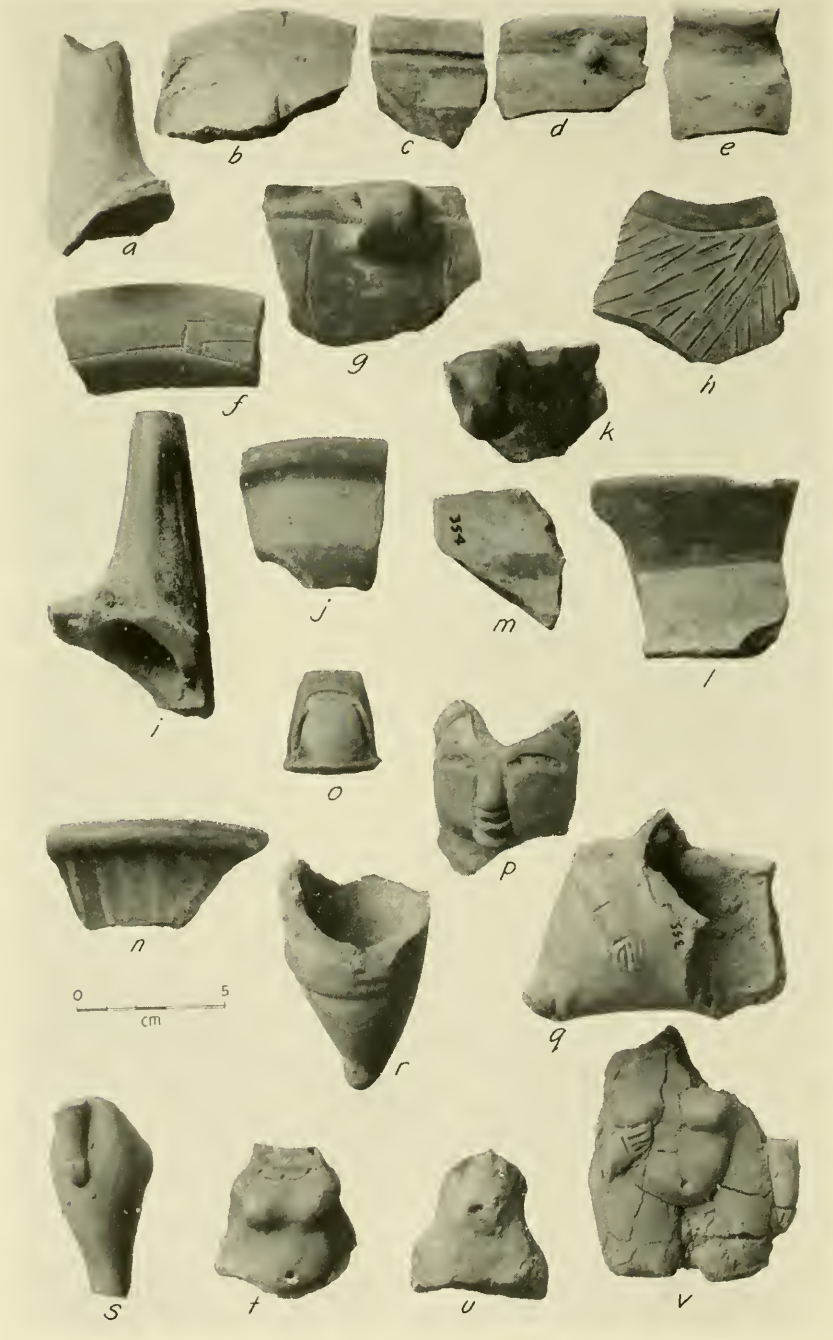
ULUA POLYCHROME, MAYOID POTTERY TYPES, SANTA RITA



ULUA BICHROME SHERDS, DEEPEST LEVEL, SANTA RITA

t, Lower Mayoid sherds on sterile sand layer *above* Ulua Bichrome horizon.

PLAYA DE LOS MUERTOS BICHROME SHERDS



PLAYA DE LOS MUERTOS BICHROME SHERDS AND FIGURINES

YOJOA POLYCHROME VESSELS. MAYOID TYPES

YOJOA POLYCHROME VESSELS, BOLD ANIMALISTIC TYPES

c, uncertain type; *f*, Mayoid type.

YOJOA POLYCHROME VESSELS, VARIOUS TYPES

a–d, Bold Animalistic and Bold Geometric; *e*, imitation Ulua marble bowl.

EARLY CERAMIC TYPES AT LAKE YOJOA

a, b, Playa de los Muertos Bichrome (?); *c–w,* Yojoa "Monochrome."

LOS NARANJOS, LAKE YOJOA

1, crude human statue; 2, stone serpent head; 3, stone torso and head; 4, mound 1; 5, section of trench, site 1.