THE ARCHAEOLOGY OF THE PALAU ISLANDS

An Intensive Survey

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INTRODUCTION

REASONING behind the evaluation of Palauan archaeology as of fundamental importance to an understanding of not only Micronesian but of Oceanic prehistory is a matter of simple strategy. Spoehr (1952) has discussed, briefly and pointedly, the bases on which our concepts and studies of Micro-Polynesian (Micronesia-Polynesia) prehistory are at present building. A further discussion involving a strategy for the study of this phase of Oceanic archaeology appears in the published statement by the Subcommittee on Pacific Archaeology (1951). It is generally accepted that at least a major share of what we now look upon as basic to human life in Micro-Polynesia, both physically and culturally, came in from Southeast Asia-Indonesia. From this viewpoint the Palaus are so placed (in the western Carolines between Latitudes 6°50'N. and 8°30'N. and Longitudes 134°05'E. and 134°45'E.) that they might be expected to have been a landfall for fleets or single canoes on intentional ventures (if such there were), or to have received castaways from time to time and thus have been a place of early and of continued settlement from the periods of outward, easterly movement to the present. If we consider the tiny isolated islands of Sonsorol, Pulo Ana, Merir, and Tobi with the Palaus we have a chain of islets and islands, widely open at the south it is true, lying athwart a major possible path of movement. An equatorial countercurrent runs east from the island area that lies east of the Celebes Sea. North of this, however, the main equatorial currents themselves sweep in from the east and then curve to the south where they join the countercurrent. There is thus something of a giant eddy which sweeps west, south, and east around and through the Palau Islands, and the tiny southerly islands of the group. It would not appear probable that the currents led early Malaysian explorers directly to the Palau group although they may have aided in the first discovery of Pulo Ana, Merir, and Tobi. It is more likely that the area of rather concentrated current movement would have exerted its major influences toward nurturing a prolific sea life which in turn would have attracted numerous sea birds. The resultant flyways may well have led early canoemen north and east from Morotai-Halmahera, the Celebes, or the islands between these major masses and the Philippines. The Palaus lie only slightly more than 500 miles east of the coast of Mindanao. It would seem that this distance, even against the weak equatorial current, would

not have been difficult to sailors who could manage others of the interisland gaps in Micronesia. Personally, I look upon the movements from the southwest, the Celebes-Halmahera area, as much more likely to have been earlier than any that may have come from the larger Philippines. If drift were of greater moment in the settling of the area by man, and I am not convinced that it was, then, in spite of the major current sweep, we must look to the southwest, for that is the direction whence the recorded castaways on Palauan shores have come. Both history and the current charts indicate that major drift could not have come from the Philippines north of Mindanao.

Dr. Robert K. McKnight has been kind enough to communicate to me (March, 1962) some of the knowledge concerning such things that he has amassed during his stay in the Palaus. He points out that Palauans associate low daytime tides in April and May with the onset of strong ocean drift from the southwest to the northeast, which may last as long as July through October, with the period of strongest drift being August and September. Drift from east to the west is, on the other hand, associated with the period of low night tides in November to March; the season of strong drift follows this and lasts through February, March, and April. The major share of drift to Palau is thus from Malaysia with Moratai being the most often named point of origin, and from the Micronesian Islands lying to the east. Certainly there is no problem in correlating sources of drift and sources of cultural influence to the Palau group. McKnight has collected and was able to give me nine instances of drift from the southwest that have taken place since World War II.

Lest we forget, a word should be said pointing out the fact that New Guinea, and the islands off the extreme northwest New Guinea coast, are but little if any farther from Tobi or Merir than the previously mentioned Indonesian islands. The importance of Melanesian influence on Micronesian culture has not, to my knowledge, been well assessed, on either the ethnographic or archaeologic level. This problem will certainly not be settled, or perhaps even greatly illuminated, by my preliminary work and by this report, but it can be highlighted, and it would seem that the Palaus, close as they are to both Indonesia and Melanesia, would be an excellent area to be examined with contact between the Micronesian and the other realms in mind.

The Palau group, thus, may be looked upon as a possible funnel or focal point for migrations from both south and west. Furthermore it is a large and, if we consider the small islands down to Tobi, far-flung group. The main section, Kayangel to Angaur, includes islands of both main types. The largest island, Babeldaob, is volcanic, as are parts of adjacent islands. Coralline islands include both the atoll type and higher limestone islands. The limestone islands include both the platform (Angaur and parts of Pelilieu) and the less habitable reef islands. Fertile soils, a climate and vegetation similar to or identical with those of the areas whence the migrants presumably came, protected lagoons, fine beaches and landings, and a lack of dangerous reefs and fauna all bode well for early and continued habitation.

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The Palaus have long been known to people interested in the archaeology of Oceania in general and of Micronesia in particular. The terraced hills found there are spectacular and mirror even more spectacular developments of the same kind in Indonesia, in India, or in Melanesia. The Palauans were moderately expert potters and good agriculturalists. They had a competitive, capitalistic, and active culture. They were, like most Micronesians, warlike, and at the time of first close contact (Wilson in 1783, see Keate, 1788) were busily engaged in empire building, politics, and intrigue. The entire complex surrounding Palau money is most challenging to scholars interested in either areal culture history or to those studying present-day social functioning. All in all, there are good and sufficient reasons for a concentration of research in the Palau area. It may well be that Palauan prehistory holds the key to an understanding of that of Micro-Polynesia as a whole.

CALENDAR AND ORGANIZATION OF THE FIELD PERIOD

A few words should, perhaps, be said concerning the plan and logistics of the trip. They may be of value to others in the development of similar activities.

We left Seattle on the Pacific Far East Lines freighter Flying Scud on December 17, 1953. We arrived in Yokohama on the 31st. Seven days were spent in Japan in the ports of Yokohama and Kobe. The steamer left Kobe on January 8, 1954, for Okinawa and left Naha Harbor on the 9th. It arrived at Apra Harbor, Guam, on the 14th. We were in Guam for 7 days; a Trans-Ocean Airlines PBY, flying for the Trust Territory administration, took us to Koror on the 21st of January, with a short stop at Yap.

On the return trip we flew from Koror to Guam on the same plane on June 18, 1954; we left Guam on the 25th of June and arrived in San Francisco on the 8th of July, via Pacific Far East freighter Fleetwood. A total of 57 days was spent in travel to and from the Palau Islands. This is roughly one-fourth of the full time away from Seattle, 204 days. This travel was not a total loss as far as the intent of the expedition was concerned. It was utilized in reading and study, writing and revisiting previously known archaeological sites on Guam, and in locating a few new ones. It would have been possible to cut this travel time to perhaps 10 to 20 days, depending on connections in and out of Guam, by flying the entire trip. The expense, however, would have been more than twice that of the surface transportation, and the resultant cut in field funds would have necessitated a shortening of actual field time or a sharp curtailment of activity while in the Palaus. This would not have been advantageous.

There follows a listing of the days spent in the examination of islands or groups of islands within the Palaus. The stated period includes travel time from the base at Koror: Koror, Malakal, Ngarkabesang, 26 days; Ngarkabesang test excavations, 3 days; Koror test excavations, 5 days; Angaur, survey and test excavations, 10 days; Pelilieu, Ngeregong, 5 days; Macharchar and islands between Ngurkthabel and Macharchar, 2 days; Aluptaciel, 2 days; Ngurkthabel and ad-

jacent small islands, 4 days; Aulong, Ngemelis, 4 days; Kayangel, 3 days; Babeldaob and adjacent small islands, 24 days; Sonsorol, Tobi, Merir, Pulo Ana, 19 days; on base on Koror, 40 days.

The single largest outlay of time in this group is the 49 days spent at the home base; this time included the writing of field notes, photography, collecting botanical and ethnographic specimens, packing, general administration, and laboratory work. Thus travel (57 days) and base work, which was largely the writing up of field notes, occupied 106 days—slightly over one-half of the 204 days overseas. The remainder was spent in actual fieldwork. Although this level of efficiency was not satisfactory to me, it is probably rather high, if one considers the general logistics of the situation, plus the fact that I am not counting writing time as fieldwork.

Other than a few consultations, the work of laboratory analysis and recording, including sherd analysis, cataloguing, photographic developing, and negative filing, was all done by my wife, Carolyn. All sherds except some two large boxes were classified and recorded and discarded on Koror. The sherds that were brought back were for the permanent reference collections; a few bags unclassified from Babeldaob and Aluptaciel, and all of the material from the K 7 test excavation which was active until the day before we left Koror. Type collections were deposited in Bernice P. Bishop Museum, Honolulu, and the Museum of Anthropology, University of California, Berkeley. The major collection is in the Washington State Museum, Seattle. It would not have been possible for me to do the extensive survey work that was accomplished had I not had my keen and well-trained partner with me. Inasmuch as a large share of whatever value this report may have rests upon the pottery analysis and classification, so, in a similarly large measure, the credit for it goes to her.

It was suggested by Mr. Mayo, the agriculturalist at the Palau station, that I take a light boat and outboard. This seemed wise and I shipped out a 12-foot plastic boat and a Mercury outboard motor. Had it not been for this equipment I should have been dependent upon Trust Territory craft, hiring the native power boats, usually with small Japanese diesels, or outriggers. Although the former would have been available when not needed for official use and the latter could often have been hired, they would neither have been readily procurable nor swift. The boat and outboard were used for all but the longest trips; they enabled me to cut time on the water, however interesting and enjoyable, to a minimum.

Housing and laboratory space were furnished, at almost a token rental, by the local Trust Territory office. We were also permitted the use of the commissary.

The manuscript was completed early in 1958, and only minor changes have been made since that date.

ACKNOWLEDGMENTS

Contributors in funds, time, knowledge, and skill or other forms of direct or indirect assistance to the Palau archaeology project have been numerous and

Part II THE ARCHAEOLOGY

CHAPTER 1

THE SOUTHERN ISLANDS

To the south-southwest of the Palau group is the string of tiny islets which leads to Halmahera on the southwest, to northwestern New Guinea on the south, and to the Talaud and Sangihe groups on the west. This debrislike trail of islands begins with Sonsorol, some 175 miles south-southwest of Angaur; moves on a few tens of miles to Pulo Ana still to the southwest; then southeast 70 or 80 miles to Merir, then back southwest 100 miles or so to Tobi (Fig. 7). East of Tobi is the uninhabited Helen Reef. From Tobi it is about 200 miles southwest to the islands lying off the Halmahera coast (Morotai); it is about the same distance to the New Guinea outliers on the south. West of Tobi one would have to travel somewhat farther, about 300 miles, to strike the first large island group, the Talaud, which lies west by north. It seems likely that this is the leading area from whence came migrant canoemen or drifting castaways to find new islands and found new colonies-or to perish. These first voyages were to lead to a traversing of the whole Micronesian chain and ultimately another part of their impetus was to carry on to Hawaii and Easter Island; they were the early ventures along a route that was to become a highroad of one of man's most imagination-shaking movements of exploration and colonization. It is easy indeed to visualize places whence early migrants or drift may have come to the Palaus, from the Philippines to New Guinea; the problem is to find concrete evidence of their trails, so long grown cold.

The islands from Sonsorol to Tobi are under Trust Territory jurisdiction and are administered from Palau. A Trust Territory fieldtrip goes from island to island, and back to Palau, about twice a year. I was fortunate enough to go on one of these trips and to make a brief surface survey of these islands. Stops were too brief to permit testing of the manifestations that I found. No time was wasted in loading copra by the Palauan clerks of the Island Trading Company. The agricultural expert and the representative of the Director of Education attended to their business, the Jesuit ministered to his flocks (these people are nominally Catholic), and the Palauan medical practitioner attended to health problems. There was usually time enough for me to cover the tiny islands superficially, but not for test pitting. The entire trip was planned to take 10 days. The diesel power plant on the

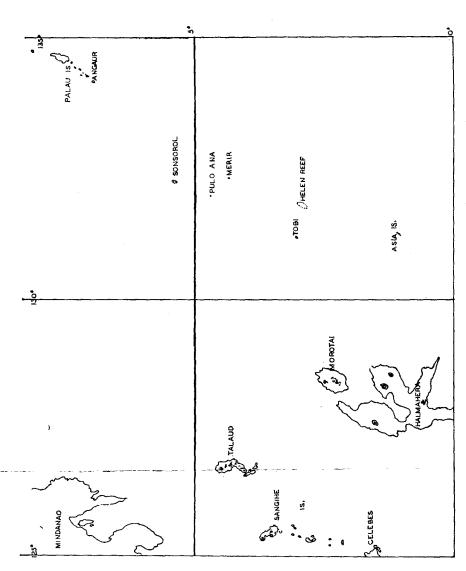


FIGURE 7.—The Palau group and the southern islands in the Southwest Pacific.

small schooner, however, ceased to function as we left Tobi and after 19 days we were finally towed ingloriously into the Malakal docks by a motorship, which fortunately happened to be in the West Carolines. We drifted for nearly a week south and east of Tobi, and had ample opportunity to reflect that the sea currents as a mode of interisland transportation were highly unsatisfactory.

The sequence of small islands from Sonsorol to Helen Reef is apparently the superficial manifestation of the inchoate arc which terminates on the south with these islands. None of these small islands is a true atoll. Hobbs (1945, pp. 134-135) suggests that Sonsorol is an elevated atoll and it is true that all of the islands that I visited have depressed and often swampy centers. I was inclined to interpret this as a local deep in reef formation and to ascribe the higher rims to wave action over a long period of time, but it is entirely probable that the islands are tiny almostplatformed atolls. They appeared to me to be miniature platforms, smaller editions of Angaur, and to be a continuation to the south of that type of island. All are wholly coralline limestone in formation; coral sand and breccia appeared wherever an old excavation offered a glimpse of subsoils. Coconut trees are mostly concentrated along the beaches and up to 200 yards in from them. The interiors of the islands are usually forested or are planted in taro. The forests are generally high and dense and include many large trees which have been saved for canoes or for house or canoe-house posts. Other wood and forest products, such as textiles and medicines, are conserved in the forests. These people do not use the areca nut; that graceful palm is rare or absent on the islands. Breadfruit trees are found throughout the forests; the fruit is used more here than on Palau. Fermentation pits may be seen near every house.

SONSOROL

There are two Sonsorol islands. I examined only the south island, which is the only one now inhabited. The reefs are close in, there is no outer or fringing reef and no lagoon: a ship must stand off the islands, since there is no protected anchorage. Here were found only two possible archaeological sites, but probably neither of them would yield much of value if excavated. During the stopover at the larger south island, from midmorning to midafternoon, I secured such information on old dwellings as I could from the older people, through one of the Trust Territory interpreters. I also walked entirely around the island, and then crossed it in three places. Two places of interest were located. These are plotted on Figure 8, a tracing taken from the hydrographic chart.

Sonsorol 1 is a large patch of weedy growth lying immediately south of the present village on the west coast, which seems to be the preferred living area. An oldster led me to it and pointed it out as the only old village known, then hurried away. No one could be expected to leave the bustle and commotion at the village landing and around the copra sheds to lead me about the island, but I am disposed to accept the statement that other sites are not known. I waded through the weed-

patch of Sonsorol 1 several times and found no objects. The growth is the only indication that soil conditions differ here from elsewhere. The small size and physical condition of the island make any concentration of dwellings unlikely. There must have been such a regular turnover of building and coconut-tree planting along the shores that no place kept a special association for long.

Spotted along the coast, especially along the western coast north of the main village and along the central eastern coast, are remains of rude stone work. These consist largely of lines of coral heads some of which are near to or connected with areas paved with small coral heads, usually square and 10 to 20 feet on a side. Some of these may be recent, some are certainly old, having moderate to large tree growth over or on an occasional remnant, but none is ancient. One concentration of this sort, on the east coast of Sonsorol directly across from the village, has been

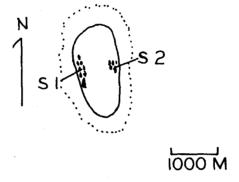


FIGURE 8.—Sonsorol Island.

designated as Sonsorol 2: the disturbed stone walks and platforms—they are hardly worthy of the name when we recall that the same terms are used for Palauan remains—indicate little other than a dwelling pattern at one time similar to that of Palau, and of other places in the Pacific. Natives stated that they were not remnants of Japanese encampments. A nearby Japanese trench and slumped rifle pits gave sufficient subsurface information. There was no midden or other alteration of the typical coral sand of the island. The coral walks and paved rectangles are wholly superficial.

Although it would be of interest to test at these two places on the south island and to explore the north island, I am dubious that Sonsorol will yield sites worthy of the time and expense. No ceramic or other artifacts were found or observed on Sonsorol. The Südsee-Expedition ethnographers appear not to have noted remains, although it is probable that the old settlement appears on Sarfert's sketch map of named places (Eilers, 1935, p. 31, Abb. 8).

Well-born and wealthy Sonsorol people disposed of their dead, comfortably resting on pillows, in canoes which were taken out to sea and sunk. Ordinary persons were taken out on the reef and coral rocks were piled on their corpses. Land

burial was known, but rare. Kintaro, one of the Sonsorol men now living on Ngarkabesang, who worked for me on the excavations, had worked as a young man at road building, presumably for the Japanese, on the northern part of south Sonsorol and said that a few burials with accompanying artifacts had been found. These artifacts were small adz blades made of tridacna shell. Such blades were small and expensive on Sonsorol, because of the lack of the large clam in the deep surrounding waters.

PULO ANA

Pulo Ana yielded no archaeological data to me. It is now inhabited by a small contingent, whereas Sonsorol, in spite of the large colony in Palau (on the island of Ngarkabesang) has a thriving village. The few people of Pulo Ana had not made much copra and our stay there was short. Eilers (1935) does not record archaeological remains. The central section of this island is markedly depressed and is a vegetationless black-soil swamp. The people of Pulo Ana are said to have disposed of their dead by exposing them on the beach flats a short way from shore.

Dr. Robert K. McKnight, then Trust Territory anthropologist on Palau, spent more time and made more observations on Pulo Ana than I. He wrote to me on March 6, 1962, that there is a mound some 14 to 15 feet high, at the southwest edge of the island, a part that I did not see. He further reported that a "God's House" lay just south of the mound and that canoe houses and a menstrual house are associated on it. He commented that: "Island historians say that the main village ... some seventeen title generations ago, was spread along the crest of the mound."

MERIR

Merir was not well explored; only 27 sacks of copra had been made by the Merir oldsters and our stop there was necessarily short. The island is dying, at least as far as the present generation is concerned. The Japanese had moved the entire population to Tobi or Sonsorol, and after the war only the older persons elected to return to their homes. The island remains in my memory as less pleasant than Sonsorol or Tobi. When we were there, it was the most mosquito-beset of all of the islands. The inner lowland is wet and swampy, even dank, although forest-covered. The women are too old to cultivate taro in any quantity, and the men cannot keep the coconut groves cleared.

In spite of the fact that it was not possible to examine the island thoroughly, I found there the best of all of the archaeological manifestations on the small islands. The site of the present village, if the few poor homes of the ancients can be called a village, rests upon a high accumulation of black soil and coral breccia. This site, Merir 1, and the present settlement are both on the western coast, about midway on the island (Fig. 9).

Slanting outward from the shore of the island is an indurated pierlike series of

reef fragments of coral breccia (Fig. 10, a). There is a similar though shorter section about 75 yards south of the larger one. So closely and well cemented are the reef fragments and so straight is the alignment that the impression of some measure of artificiality is strong. I can find no discussion of the problem by those who have been longer on Merir than I. My belief is that while the base in both form and material of this landing or dock is natural, there may have been some improvement by the natives in the past. Above the junction of this natural dock or breakwater and the beach is a gently sloping mound of black soil and coral breccia (Fig. 10, b). It lies from 10 to 25 feet above the local level of the island and up to 30 feet above

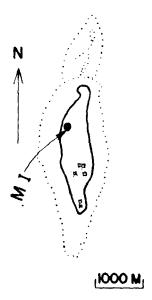


FIGURE 9.-Merir Island.

sea level (Eilers, 1935, p. 304). The whole of the raised area is about 450 feet long by 210 feet in width. There are small areas paved with coral heads, no doubt of native construction, and a few cement basins made by the Japanese. Several large coral slabs, some still set upright, may be house-support remnants (Fig. 10, ϵ). Broken fine coral breccia from the beach has been used to strew surfaces as a cleansing or freshening measure. This material thus forms a strong minor percentage of the bulk of the mound. The remainder appears to be dark earth and coral sand, shells, and remnants of wood, probably from house structures. The dark soil cannot well be other than midden earth heavily charged with organic material. Some, or much of it, may have been carried in, in order to secure a raised living space; the remainder, and probably the bulk of it, must be normal living accumulations. It is obviously an archaeological site and, equally obviously, the place became a village site because of the naturally provided landing place.

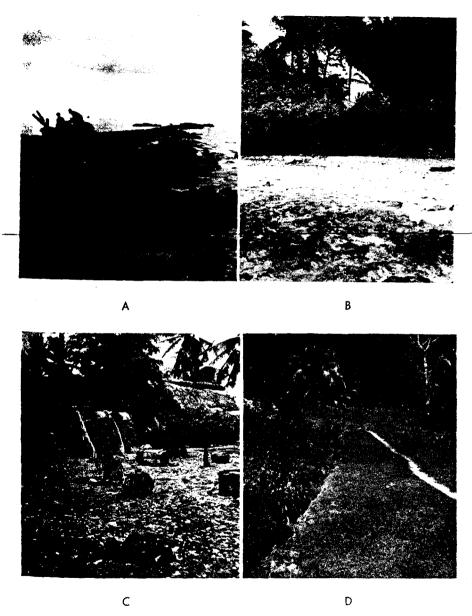


FIGURE 10.—Merir and Tobi Islands. a, Pier or docklike elongation of inshore reef or reef fragments at Merir. b, Merir 1, view to east from the strand toward the midden accumulation. c, Merir 1, northerly view showing shell-strewn surface, crumbled coral limestone building supports (center), Japanese debris (right), and houses in background. d. Coral-stone constructed causeway through taro patches in interior Tobi.

and 10 to 20 feet high. These appeared to me, at the time of examination, to be spoil heaps resulting from two causes, the soil removed from the swamp to enlarge or deepen the area for taro planting, and spoil removed from the surface or rejected material from the phosphate mining. It did not seem possible to differentiate between the two. Many of these mounds are partly faced with roughly shaped, small coral blocks. A large component of the heaps is coral sand, such as would be removed from the taro pits. This sand has a low angle of repose and would seem to require some facing to keep it from sliding back into the pits, at least during storms, and until it was stabilized by a vegetal cover. The facing is rather better done than would be necessary in many places, especially along the rim of the pits where it is multiple, and traceable ramps and small terracings appear. Figure 10, d and Eilers (1936, Tafel 6) show views of a faced causeway, the mounds and retaining walls. Eilers mentions the stoneworks briefly (1936, p. 48) and discusses the possibility

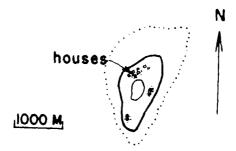


FIGURE 11.—Tobi Island.

that they may be remains of a seawall built to protect the coconut palms from storms by Holden and his fellow sailors when they were held in slavery by the natives in the early 1830's (Eilers, 1936, p. 18). This is dubious on several counts. The retaining walls under discussion have a specific purpose, they are inland and do not protect palm trees, and they are too extensive to be ascribed to the enforced labor of a few ill-treated men. All in all, I consider them to be a part of the aboriginal culture.

Furthermore, brief examination turned up one well-made structure (Figs. 12, a, 13). It lies in the northern section of the swamp and might best be described as a type of tower. It is 12 to 15 feet high, made of roughly dressed coral blocks averaging 6 by 6 inches by 1 foot. The shape is a rounded rectangle 20 by 22 feet. There is a central depression or opening. A ramp leads up on one side, and about midway up the opposite side there is a shelf 2 to 3 feet wide. Walls vary from 3 to 5 feet in thickness. The building has the appearance of age, but brief local questioning elicited no information on it.

North along the main beach from the village center, perhaps not more than 600 to 800 feet from the landing area, is a large coral pillar, lying on its side (Fig. 12,

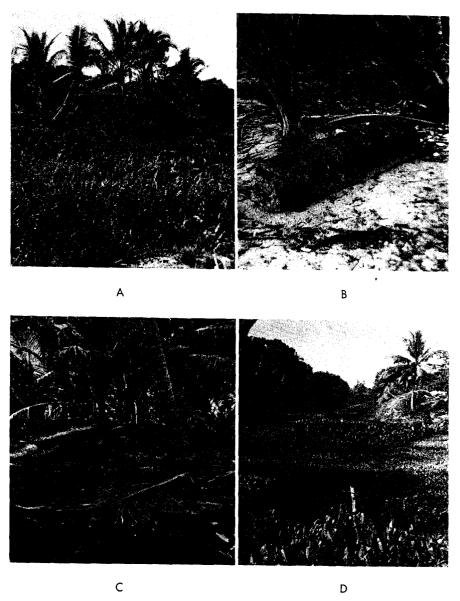


FIGURE 12.—Tobi Island. a, Roughly laid coral-stone tower in northern interior Tobi; built on a raised area which may be composed of spoil from taro pits. b, Pillar of coral limestone on Tobi beach, north of present village. c, Large house mound, midden accumulation on Tobi south of present village. d, View in taro swamp interior of Tobi; these large swamps and spoil heaps, at right, are probably the result of phosphate pit mining.

b). The object is 7 feet 5 inches in length; 5 feet, presumably the part that showed above ground when in use, has been worked smooth. The diameter is 18 inches near the ground line, 2 feet 6 inches from the base, and 15 inches at the top. This object is within the size range of the heavy wooden posts that support the roofs of the present-day gabled canoe houses. On Tobi two to four posts on each side support the heavy stringers on which rest the canoe-house rafters. These are uncomfortably low, about 5 feet high, so that the islanders cannot walk upright in their canoe storage area. The roof is partly sealed off to form a large attic.

The coral pillar, the tower, and the retaining walls of the taro swamp offer evidence of an era in which there was, by present-day standards, extensive utilization of coral limestone on the island. This is the only evidence, unless the coral outlines, platforms, and wide walks of Sonsorol are considered, of megalithic activity on the small southern islands. Ethnographic probings and archaeological testing and mapping of the coral-block structures of Tobi are thus important.

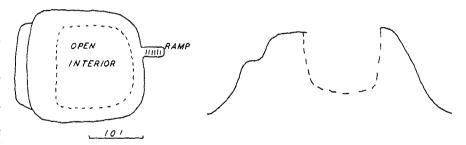


FIGURE 13.—Tower: Tobi taro fields. Left, top view; right, cross section.

The only truly excavatable remains on Tobi are small earth and midden accumulations that are almost certainly house mounds (Fig. 12, c). These are not to be confused with the large piles of peat which the Japanese removed from the interior and left in the village near the landings. The mounds are concentrated in and back from the most southerly part of the village. Here they are low accumulations only a foot or two high and 15 to 18 feet on a side. Many of the lower ones are now in use. Farther south and farther in from the beach are several larger, somewhat eroded and certainly older mounds, ranging in size from 30 to 40 feet on a side, and in depth from 5 to 7 feet. These rather respectable remnants are formed of coral sand, heavy dark organic earth similar in appearance to that of the taro swamps, or of the Merir mound, and coral fragments. A rather diligent search yielded no artifacts. I queried an informant concerning these accumulations and he substantiated my belief that they were house mounds. Unfortunately my question had been a leading one. It is not possible to discuss the reasons for or the methods of their formation without excavation. These manifestations stand next to the Merir 1 site in importance for excavation.

I collected no artifacts on any of the small islands visited. Eilers (1936, p. 197, Abb. 154–158) illustrates tridacna adz blades found on Tobi. These, though much eroded, appear to be common forms. It is obvious that both Merir and Tobi have remains that are of archaeological importance. The sites on Merir and Pulo Ana may be expected to yield data of an order that could shed light on the questions of interisland movement. The Tobi remains are probably more local, but the probabilities of a weak megalithic phase there may be of broader interest.