

The Abandonment of Nan Matol, Ancient Capital of Ponape¹

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For more than a century visitors to the island of Ponape in the Eastern Carolines have engaged in mystified speculation about the megalithic ruins of Nan Matol (also spelled Nan Matal, etc.) on the east coast of the island. The writings of the German ethnographer Paul Hambruch constitute the fullest and most authoritative discussion of the ruins to date. Hambruch did ethnographic fieldwork on Ponape in 1910, and spent part of his time surveying and investigating the ruins as well. In his reports he also reviews much of the early literature on them as well as presenting his own findings (1911, 1936).

In general I would agree with Hambruch's conclusions on the origin and use of the ruins, and the views which I shall present on these points are largely a summary of Hambruch's. My chief purpose in preparing this paper is to present some further information derived from the letters of the early American missionary, L. H. Gulick, and to note some implications of this for the question of the time and cause of the abandonment of the ruins.

The ruins of Nan Matol consist of about 90 small, roughly rectangular artificial islands which have been constructed in the shallow water on the fringing reef on the seaward side of Temwen Island in Matolenim District. They occupy a total area, including the water, of about one-third a square mile.² Accordingly some writers have referred to them as the "Venice of the Pacific." Hambruch's sketch gives a reasonably accurate and complete plan of the structures. The islands are typically constructed of coral rubble filling outer walls of large unworked basalt blocks and columns. On a few of the islands the walls rise to considerable height above the ground level and are constructed of layers of basalt columns, set alternately lengthwise and crosswise.

The name Nan Matol (Ponapean standard orthography *Nan Moadol*)³

¹ This is a revised version of a paper originally presented at the annual meeting of the American Anthropological Association in Chicago in 1957.

² The widely quoted statements of F. W. Christian, the most respectable published English source on the ruins, that they cover nine or eleven square miles (Christian 1899) are grossly exaggerated and incomprehensible in view of the fact that Christian personally visited them.

³ Terms in the Ponapean standard orthography are given in italics here and below. Most letters in this orthography have standard phonetic values, except that *d* is similar to English *t*, while Ponapean *t* is a retroflex alveolar stop; *oa* is a digraph for a low back vowel, and *ng* is a digraph, as in English, for a velar nasal; *h* indicates lengthening of the preceding vowel. Some common Ponapean names, such as the name "Ponape" itself, are given in forms in which they have become established in Euro-American literature. Where alternate forms exist, as is often the case, I have used the established from which seems to me to suggest more closely the Ponapean pronunciation, e.g., Nan Matol rather than Nan Matal.

means literally "The Place of Intervals." The Ponapean etymology of the name makes it clear that the "intervals" are intervals between houses or buildings.⁴ Since the word *moadol* refers to a fairly narrow interval a free translation of Nan Matol might be "The Place of Crowded Buildings." To commemorate the density of the settlement in the name suggests that in olden times as today the isolated extended family homestead was the typical settlement pattern over most of Ponape.

According to Ponapean tradition,⁵ the construction of these islands was initiated by some "immigrants"—whether from another part of Ponape or another island is not entirely clear. The original name of the settlement was *Soun Nal-leng*, or "Reef of Heaven."⁶ Additions were made by two priests or magicians named *Sihpa* and *Sohpa*, who had a ceremony which had to be performed on canoes in quiet waters. They found the waters around what became Nan Matol superior to the waters of the northern part of the island, which are more exposed to waves. The inhabitants of Nan Matol (or *Soun Nal-leng*) expanded their political control over nearby territory, and their rulers eventually assumed the title of *Sau Deleur* or "Lords of Deleur." *Deleur* is a name for the central part of Matolenim District around Matolenim Harbor.

Eventually the Lords of *Deleur*, who continued to reside at Nan Matol, subdued all of Ponape, and while the legends are not entirely explicit, it seems probable that the largest and most impressive structures were erected at this time. Certainly much organized labor would have been required to remove the larger basalt blocks and columns from their original locations on the mainland onto rafts and then to tow them to Nan Matol and set them in place. One cannot imagine the present population of Matolenim District (total about 1,200) accomplishing such a task very rapidly. The amount of labor required to construct Nan Matol and the absence of any other site on Ponape of comparable size and complexity thus lend high credibility to native traditions of the one-time political unity of the island under the *Sau Deleur* rulers.

According to Ponapean tradition the *Sau Deleurs* were autocratic rulers.

⁴ The name of Matolenim District means "intervals of houses" or "house intervals"; Ponapean orthography, *Moadol-en-ihmw*. The artificial islands of Nan Matol are reported to have originally been called Nan Matolenim and the district is said to have taken its name from this locality. An analogous derivation of a district name is that of U District, to the north of Matolenim, from a place in it named Nan U, which became the capital. A century ago U District was generally known as *Wenike*, a name which is now obsolete.

⁵ In this and following references to native tradition I am summarizing and synthesizing texts collected by both Hambruch and myself (Hambruch 1932, 1936).

⁶ I suspect that Hambruch's etymology of this term as meaning "Sun of Heaven" (Hambruch 1911: 131) was either suggested by him or obtained from an informant who was merely speculating as to the meaning of the term. I was given the "reef" meaning as a traditional etymology and it seems inherently more plausible. However, it is only fair to note that I have been given the meaning of "sun" in other contexts for what appears to be a homonymous morpheme.

who imposed heavy tribute on the people. Finally invaders from Kusaie, 200 miles to the east, deposed the *Sau Deleur* with some local help. Following this Ponape soon broke up into the five independent districts found at the beginning of intensive western contact in the first half of the nineteenth century.

For some time Nan Matol continued as the religious and political center of Matolenim District. Presumably the name Matolenim and the district as a political entity date from this period following the end of the *Sau Deleur* rule. However, by the time of Hambruch's investigation in 1910, Nan Matol was clearly abandoned as a religious and political center, although Matolenim District is still in existence to this day. Hambruch attributed this abandonment to the preaching of the American Protestant missionaries, Congregationalists from the "Boston Mission" (American Board of Commissioners for Foreign Missions), who arrived in 1852, and allegedly interrupted the construction of certain incomplete structures in the area. One gathers from Hambruch that Nan Matol was a flourishing town up to the arrival of the missionaries, when its life was suddenly halted by Christian profanation of its sacred places and ceremonies. As evidence of the occupation of the ruins through the period of foreign contact he cites the reported discovery by an early white visitor of some foreign coins and a crucifix in a burial on one of the islands.

However, the fact that Hambruch himself collected 2,000 artifacts in the area and mentions no foreign articles in this collection suggests that most of the occupation occurred before foreign contact. A pagan burial witnessed by the missionary Gulick in the mid-nineteenth century contained many foreign objects, some of which would have been durable archeologically.

In fact, the unpublished letters of the early missionaries, especially those of Gulick, who lived near the ruins on Temwen Island, make it clear that Hambruch's explanation of the abandonment of the ruins is untenable.⁷ At an early date, before any conversions to Christianity were made and while the missionaries were in fear of being momentarily expelled by the Ponapean rulers, Gulick refers to the islands of Nan Matol as "the celebrated ruins." It is clear from Gulick's account of a personal visit to them that they were then little used and largely uninhabited. When Gulick first arrived it is true that the high chief of Matolenim was living on *Temwen* Island fairly near the ruins, but there is no indication that any of the artificial islands themselves were at that time regarded as the official residences of any of the Matolenim nobility.

Some ceremonial use of the ruins did remain in Gulick's day, but it was relatively slight. Gulick mentions an annual ceremony involving a dance on canoes before the island of *Pahn Kedira*, traditionally the residence of the *Sau*

⁷ As Saul Riesenbergh has pointed out to me, other foreign visitors had described the ruins of Nan Matol as abandoned before the arrival of the American missionaries. These include the Irish sailor O'Connell and the Spaniard Michelena y Rojas, both of whose material on Ponape is reproduced at length in German translation in subvolume 1, the historical section of Hambruch's Ponape report (1932).

Deleur. Accompanying this was the sacrifice of a turtle, involving feeding the guts to a mythical conger eel, alleged to live in the island of *Idehd*. Gulick also attended the coronation ceremony of a new high chief, performed by a small party of priests and nobles at two places, one on the mainland and another on an island in Nan Matol.

Certainly the missionaries did disapprove of these few remaining ceremonial uses of the area and must have publicly stated their disapproval at times, yet according to a statement of one of Hambruch's own informants (1936: 94) the turtle sacrifice ceremony was abandoned because one of the priests desecrated it by killing, roasting, and consuming a mess of the species of sacred conger eel when he failed to receive his allotted share of meat from the sacrificial turtle. This incident must have occurred before any widespread conversions to Christianity, although after the arrival of the missionaries, since Gulick witnessed the ceremony on one occasion. One suspects that the ceremony must have been obsolescent to be abandoned on such a pretext, especially since the efficacy of the taboo is said to have been demonstrated by the death of the offending priest four days later.⁸ We may grant that the missionaries probably were responsible for the final abandonment of Nan Matol as a coronation site for the Matolenim chiefs—and this may have been the basis for the remarks of Hambruch's informants about missionary interference—but for other uses we must look for other causes of abandonment.

What may these other causes have been? Perhaps we may find the most important clue to the abandonment of the islands in the tradition that they formed the site of the capital of Ponape under the *Sau Deleurs*. As such, the population must have consisted mainly of the ruling royalty and nobility with their priests, warriors, and servants. The number of probable residential islands, and of house sites found by Hambruch on some of them, suggests to me that the population of Nan Matol at its height must have numbered roughly a thousand or perhaps more. I would guess that the population of all Ponape at the same period was around twenty to thirty-five thousand or more. The Nan Matol population must have subsisted largely on tribute brought from other parts of the island, as the artificial islands themselves are too small and their soil too poor for much agricultural production. Also, neither kava nor yams, both essential in Ponapean feasting, grow satisfactorily in coral soil such as is found in these islets.

It would seem inevitable that with the political disintegration of Ponape following the deposition of the *Sau Deleurs* the flow of tribute to Nan Matol should have been greatly reduced and the population of nobility and retinue—

⁸ Hambruch says four *years* later, but this translation of his Ponapean text is clearly incorrect. He may have been confused by the fact that Ponapean in counting the passage of time enumerate nights (*pwohnhng*) rather than days (*rahn*) and by the similarity of the morpheme for "four" (*pah-*) to the morpheme for "year" or "winter" (*pahr*) (Hambruch 1936: 94, 95).

now the nobility of Matolenim District only, not of the whole island—reduced accordingly.

Depopulation of Ponape following the beginning of intensive foreign contact may have been a further occasion for the final abandonment of Nan Matol as the seat of the high chief of Matolenim District. For several decades before the arrival of the American Protestant missionaries in 1852, whalers and traders had been visiting Ponape in appreciable numbers, introducing firearms and hard liquor, and spreading venereal and other diseases which had considerably reduced the population. Gulick noted this depopulation and pointed out that as a result, the ratio of commoners to chiefs had shrunk, and the services of the remaining commoners were much in demand by the chiefs. The commoners had accordingly grown independent, for if one chief treated them too haughtily they needed only to flee to another part of the island, where the local chief would be glad to welcome them as new subjects. With the shrinking of the commoner labor supply and the growing independence of the remnant, abundant and reliable tribute would cease, and it would be little wonder if the chiefs of Matolenim felt inspired to move onto solid agricultural land and set their personal retinue to concerted production of food and kava. Nor is it surprising that the ceremonial observances, though not entirely abandoned, should have become considerably attenuated, by both the earlier political fission and the later depopulation.

These speculations are supported by the fact that Gulick, on his arrival on Ponape, found the high chief of Matolenim residing on *Temwen* Island, near enough to the ruins to visit them for occasional ceremonies and have some association with their *mana*, but nevertheless on good solid agricultural earth with no doubt a personal supply of yams, kava, and pigs (by then introduced) reasonably near his door.

If, as Hambruch believed, the chiefs of Gulick's day had entertained any notions of extending the glories of Nan Matol through further construction, the great smallpox epidemic of 1854 must have put all such thoughts out of their heads. Judging from contemporary mission reports, within five months about 5,000 people had perished out of a total population for the island of about 10,000. The effects of this further sudden decrease in the labor force on the political system and the position of the chiefs can easily be imagined. This epidemic occurred, I would note, before the missionaries had made any formal converts and while they had very little influence.

In conclusion, while Hambruch's reports on the layout and original uses of Nan Matol are of much value, he greatly exaggerates the role of the American missionaries in causing the abandonment of the area as a political and ceremonial center. The main cause of the abandonment seems to have been the decline in the power of the Ponapean rulers consequent upon political fission of the island before Western contact. Depopulation following Western contact probably also

contributed.

This conclusion does not necessarily suggest any great age for the ruins. The date of stopping construction may be no more than a century or two earlier than Hambruch thought, and the date of abandonment as a residence for the chiefs of Matolenim may be later than that.

The date of beginning construction is of course vaguer, and will require archeological work to determine. Some further archeological work has recently been done by Saul Riesenbergh and Clifford Evans, and hopefully some firmer information on the span of use of the ruins will be forthcoming from it. In any case, the fact that Ponapean tradition is fairly explicit and plausible on the rise of the *Sau Deleur* rulers and on a period preceding them suggests that the construction began not too many centuries ago, and probably well after the initial settlement of the island.

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