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FINA'OKSO' ANTIGU
Prehistoric Soil Mounds in the Interior of Rota

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This paper examines a series of low charcoal stained soil mounds discovered within the interior of the island of Rota. These features have been documented throughout the Marianas but are a fairly uncommon feature type. This paper will investigate a sample of 58 mounds, five of which were archaeologically tested. Preliminary investigations indicate that these soil mounds date to the late Latte Period. Data considered in this paper were compiled from a 600 hectare survey of the Eastern Plateau of Rota conducted in 1992. This survey was conducted for the proposed Dugi/Gampapa Agricultural Homestead Subdivision. The survey cut across the traditional land units of Dugi, Gampapa, I Chencon, As Nieves, Taksunok, and I Chugai. Associations between soil mounds and latte architecture will be considered as well as two clusters of latte sets identified as the former villages of Chugai and Gampapa. Economic differences between Gampapa and Chugai will be investigated through a statistical and Exploratory Data Analysis of the distribution of soil mound areas within the two villages.

This paper is based upon data gathered from a 1992 archaeological survey of a proposed 650 hectare Agricultural Homestead in the traditional areas of Duge, Gampapa, Chugai, and I Chencon on the island of Rota. This survey was conducted in accordance with Commonwealth of the Northern Mariana Islands public law requiring archaeological review of all projects involving earthmoving, including mechanical land clearing.

Rota, also known as Luta, is the smallest of the four main southern islands of the Marianas chain, with an area of approximately 85 square kilometres (figure 1). The island is composed of a major landmass with a terraced peninsula, known as Taipingot, jutting southwest from the main eastern mass of the island. The area of concern for this presentation is the eastern plateau of the main mass of Rota within the traditional areas of Gampapa and Chugai (figure 2).

The results of the survey were reported to the CNMI Historic Preservation Office in a draft final report in 1996. However, financial conflicts between the archaeologists and the company managing the business end of the survey have prevented the production of a final report with finished maps and figures.

Archaeological literature generated in response to state and federal legislation is often referred to as grey literature because of limited availability to archaeologists and the public. The archaeological survey of the Duge, Gampapa, I Chencon Agricultural Homestead must therefore be considered among the "greyest" of literature.

The Agricultural Homestead survey investigated and documented a significant portion of

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eastern Rota. Precontact, Contact Period, and historical sites were discovered. This analysis focuses on the fiftyeight charcoal stained mounds discovered in the course of the survey. Charcoal stained mounds are a type of feature rarely documented elsewhere in the Marianas. The number of mounds discovered during this survey is unprecedented. The features were located in a number of contexts, allowing further interpretation of isolated mounds and those discovered within Latte Period villages and also between mounds recorded in different villages. Statistical analyses are employed to investigate the different contexts and to interpret changes and diversification of the late Precontact and Contact Period Chamorro economy.

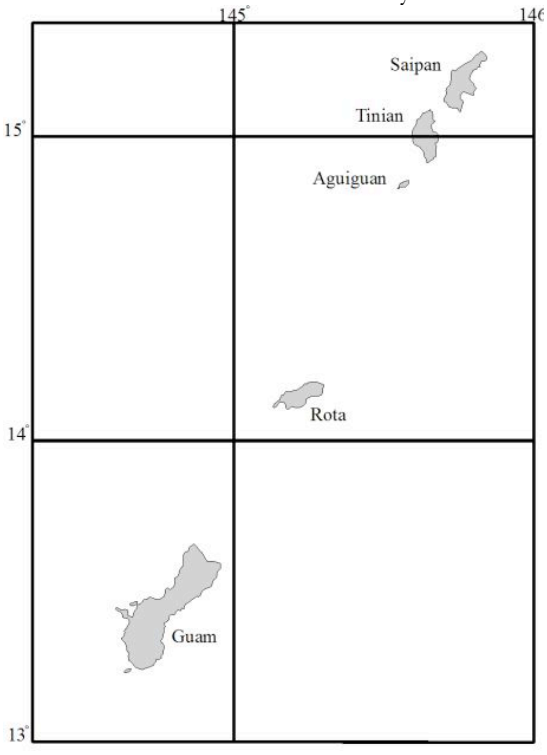

Figure 1. The Southern Arc of the Mariana Islands.

LATE PREHISTORY IN THE MARIANAS

The Latte Period in the Marianas dates from approximately 1000 AD-1521 AD. The primary archaeological marker for this period are the two piece stone architectural pilings known as latte stones that functioned to support residences and other structures such as canoe houses. These stone pilings occur in paired sets of three to seven uprights, though 6 and 7 pair sets are rare. Burials are often associated with the remnants of latte structures. Other features associated with latte sets include hearths, pits, and charcoal stained mounds (Russell 1998:110-111). Some latte structures have had gravel pavements and stone platforms (Butler 1997:122) identified as well.

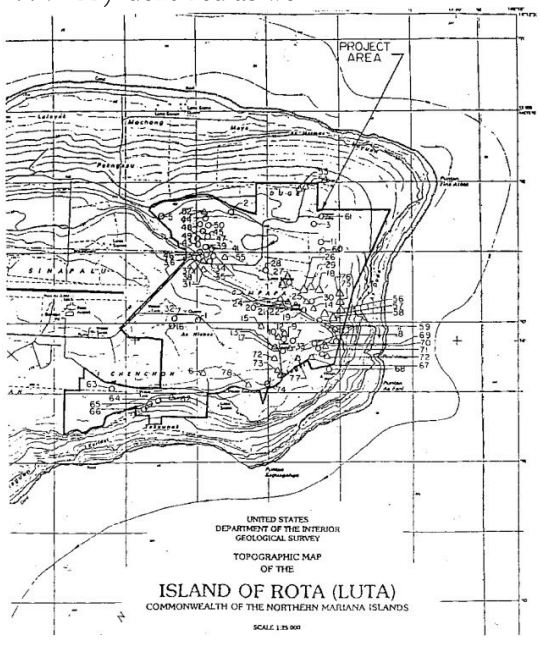

Figure 2. The Project Area on Rota Depicting Archaeological Sites.

Rota is particularly important in the study of this period in the CNMI due to the presence of extensive and well preserved latte sites. There are two principal reasons for the continuing presence and integrity of these archaeological sites. The first is that this island was the last of the Northern Mariana Islands to be used for sugar cane production by the Japanese in the early 20th century and its thin and relatively poor soils did not encourage the agricultural intensification seen on Saipan and Tinian (Peattie 1988: 332)(figure 3). Secondly, unlike Saipan and Tinian, Rota was not invaded during World War II. Thus, the island did not experience the incredible devastation caused by modern close combat, nor was it the site of massive US post-invasion earthmoving activities related to the construction of air fields,

hospitals, barracks, and other logistical requirements for the planned invasion of Japan.

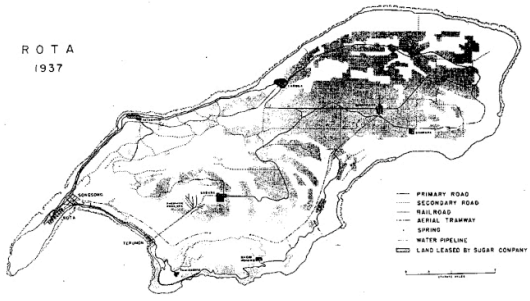

Figure 3. Land Parcels Rented for Sugar Production on Rota in 1937.

Moreover, Rota is the site of unusual latte forms such as the latte stone and stone slab structure at Mochong (Takayama and Egami 1971) and the one piece latte stone and latte cap stone discovered on the southeast coast (Butler 1997:134). In addition, the only known 14 column latte structure discovered in the Marianas is located at Mochong (Morgan 1988:38). Finally, there are the massive and unfinished latte stones at the As Nieves quarry that if erected would have dwarfed the House of Taga on Tinian (Morgan 1988).

The most common artifacts recovered from Latte Period sites are pottery sherds. This pottery can be characterized as fairly thick walled, volcanic sand tempered, and typically undecorated, though finger or fingernail impressed rims are not uncommon (Hunter-Anderson and Butler 1995:54). Vessel rims are typically thickened during this period, though there appears to be some regional variation between the degree of thickening for pottery analyzed from Guam and Rota and pottery from Saipan and Tinian (Graves et al. 1990). Various surface finishes are found on pottery dating to the Latte Period including combed, brushed/wiped, incised, and striated. Pottery with brushed/wiped surfaces and combing appear to be more common finds on Guam and Rota than on the islands to the north.

Butler has made a strong argument that the increasing thickness of Latte Period pottery relative to earlier vessels was tied to changes in cooking associated with the boiling and stewing of starchy foods such as tubers and possibly rice (Butler 1990). Changes in pottery may also have been associated with a greater need for water catchment and storage as settlement moved into drier and more challenging portions of the islands and also presumably as Chamorro society became more dependent upon horticulture and terrestrial foods. There was probably a greater need to catch water to nurse plants through times of drought and to store seasonable produce such as rice in containers that would keep rats and other vermin at bay.

Other artifacts found on Latte Period sites include: basalt mortars, pounding stones and flaked tools; basalt, *Tridacna*, and *Terebra* shell adze heads; ground stone and coral sling stones and sinkers; shell hooks and fish gorges; Spondylus shell beads; and worked bone spear points and needles (Hunter-Anderson and Butler 1995:40-45). In addition, the quantity of volcanic stone found at Latte Period sites is considerably greater than earlier times (Craib 1998:210).

Current and ongoing research also has revealed the movement of goods and raw materials among the islands of the Marianas chain in the Latte Period. Dickinson's research on the petrography of pottery temper has shown that volcanic sand temper in pots from Tinian, Rota, Aguiguan, and the northern islands did not originate in these locations (1998, 2001) but was brought in from Guam or Saipan. The question remains whether this indicates a traffic in temper or pots. Mangold's research in the chemical attributes of volcanic stone gives preliminary indications that volcanic stone *lusong*, as well as raw material and adzes originated in the northern islands (personal communication 1998)

Sites dating to the Latte Period have been found along the coast and within the interior of Rota and the rest of the islands of the Marianas archipelago. Butler's survey of eastern and southeastern Rota indicates that even extremely inhospitable coastal areas were occupied or the scenes of activity during the Latte Period (Butler 1997). The spread of residential sites during the Latte Period into the interior of the south-

ern islands of the Mariana chain has been interpreted to indicate a growing population and a diversification of the local economy (Kurashina 1991). Clearly, the distance from ocean resources and the limited fish and shell remains at many of these interior sites indicate the probability of a greater dependence upon horticultural or agricultural foodstuffs. The expanded tool kit associated with sites from this period also supports this inference. Butler has hypothesized that the late prehistoric expansion into the interior of the southern islands of the Marianas may have been driven by an intensification of rice cultivation (personal communication 1998)

Due to the depopulation of the Marianas under Spanish colonialism in the 18th and 19th centuries the eastern plateau of Rota was probably abandoned or at the very least very sparsely utilized. Therefore, very little environmental or cultural disturbances occurred between the 1690s until the Japanese development of Rota in the 1930s except for damage from typhoons. Even then, Rota was not as intensively developed as Saipan and Tinian. The many substantially intact latte sites within the project area attest that traditional Chamorro sites were not as disturbed as they were on the other major islands of the CNMI

DESCRIPTION OF SOIL MOUNDS

Charcoal stained earthen mounds were the most common prehistoric feature discovered during the survey of the Rota Agricultural Homesteads (Pantaleo et. al. 1996:156). These are not particularly impressive features on the landscape as they typically rise only 30 to 70 centimeters above ground surface. All of the mounds that were archaeologically tested exhibited at least two distinct strata and four of the five were determined to have intact ash and charcoal lenses that presumably reflect repeated burning episodes.

Artifacts, such as pottery, fire cracked rocks, volcanic rock fragments, and marine shell are commonly found associated with these features (Pantaleo et. al. 1996:103-122). The density of marine shell and food remains at these features, however, are not nearly as dense as around latte sets. The draft final report for the survey does not indicate that a particularly high density of prehistoric pottery was discovered at any of the mounds. However, Joe Guerrero, the former CNMI Historic Preservation Officer, has informed me that some mounds had substantial quantities of pottery present on their surface (personal communication 2000). Pantaleo et.al. state that the "open firing of pottery appears to be...a plausible function for some of the mounds: (1996:156). However, no ceramic wasters have been positively identified and Pantaleo (1996:156) notes that only limited numbers of sherds were discovered during subsurface testing.

Archaeological testing suggests that these features are generally intact (Pantaleo 1996:156) with complex stratigraphy and a dense organic content. The considerable quantities of charcoal in all reported strata of the mounds also imply that these mounds reflect some form of past human activity associated with fire such as cooking or heat processing and as previously stated, subsurface testing at five soil mounds discovered intact lenses within the features that indicate individual burning /cooking/ processing episodes.

Four carbon 14 dates were obtained from two of the mounds (RT-1-0415 Feature 5 and RT-1-0430 Feature 2)) in the course of the survey (Pantaleo 1996:156). The calibrated dates (Stueiver and Pearson 1993) for RT-1-0415 are A.D. 1430-1640 and 1440-1670 and for RT-1-0430 are A.D. 1494-1504 and 1160-1410 (Pantaleo 1996:124). These dates closely match all of the other carbon dates for the project.

There is some suggestion that erosional processes have slightly enlarged the mounds. Surprisingly, however, agricultural cultivation has not eliminated these features from the landscape as is so common in the United States and Europe.

ANALYSIS

Analyses to this point have not investigated the differences between the mounds. However, there are some obvious variations in feature association and size that can be determined from the survey reports. The first is that some

mounds are associated with latte sets and some are not. Whether this is because of the later dismantling of earlier latte structures, either prehistorically or historically, or that there never was an association is not clear. The other obvious difference is that these mounds vary considerably in surface area from as little as 6 square meters to as much as 1674 square meters.

The following is a preliminary statistical description and graphic presentation of charcoal mounds discovered within the project area. It is meant to show variation within the sample and to provide a starting point for testing and analyzing these potentially very important features.

Fifty-eight charcoal stained soil mounds were discovered during the course of the survey of the project area. Fifteen of the mounds, 26% of the total sample, were not associated with latte sets. The remaining 43, 74% of the sample, were associated with latte sets.

Charcoal stained mounds not associated with latte sets will be referred to as "non-associated mounds". The approximate area (in square meters) of non-associated mounds can be calculated for 14 of these features (two of the mounds had no area data reported). The mean for this set of features is 192 square meters and the median is 58 square meters. The standard deviation is 106. The overall distribution of the approximate area of non-associated mounds is depicted in figure 4.

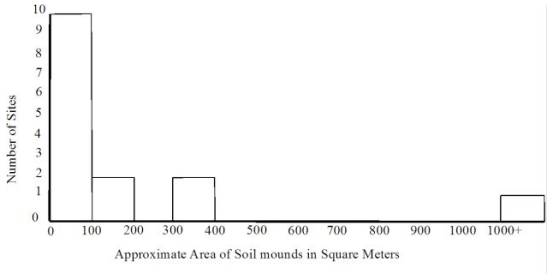

Figure 4. The Distribution of the Approximate Area of Soil Mounds Not Associated with Latte Sets.

Charcoal stained mounds associated with latte sets will be referred to as "associated mounds". The approximate area (in square meters) of associated mounds can be calculated for 39 of these features (four of the mounds had no area data reported). The mean for this set of features is 343 square meters and the median is 150 square meters. The overall distribution of the approximate area of associated mounds is depicted in figure 5.

A quick comparison between figure 4 and 5 reveals some similarities between the two distributions. Clearly the vast majority of charcoal stained mounds in both categories are less than 200 square meters in area (24 of 38 associated mounds or 63% and 11 of 14 non-associated mounds or 79%). However, the curve in figure 5 is more heavily skewed toward the larger area values than the curve in figure 4. In addition, figure 5 has a bimodal distribution with a peak in the 1000+ square meters area of the X axis.

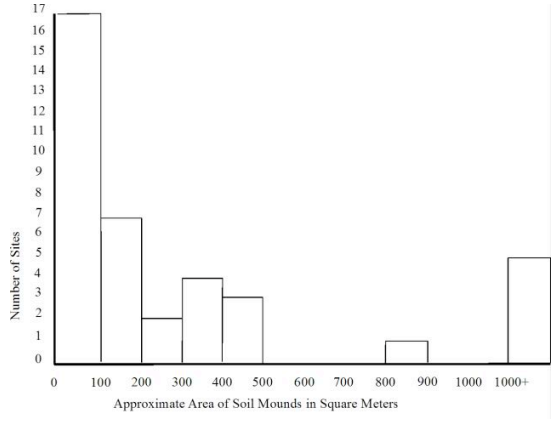

Figure 5. The Distribution of the Approximate Area of Soil Mounds Associated with Latte Sets.

There are also differences between the two distributions at the lower end of the scale that are not apparent because of the scale of the histogram. When the two curves are superimposed over each other for the 0 to 100 range at intervals of 10 (figure 6) it becomes apparent that the non-associated mounds peak at a much lower portion of the range (21-40) than the associated mounds (61-70). So that even at the lower end of the range the associated mounds tend to be larger in area.

An examination of the data from an Exploratory Data Analysis (EDA) perspective, using box and whisker plots, also highlights the differences between the two distributions (Figure 7). EDA attempts to reduce the influence

of outliers upon understanding the distributions through a variety of ways, especially relying upon the median as a better measure of centrality than means. Box and whisker plots essentially display data in quartile form around the median. The distributions for the associated and non-associated mounds clearly show that the associated mounds tend to be larger. In fact almost the entire "box" of the non-associated mounds is to the left of the median of the non-associated distribution (Figure 7).

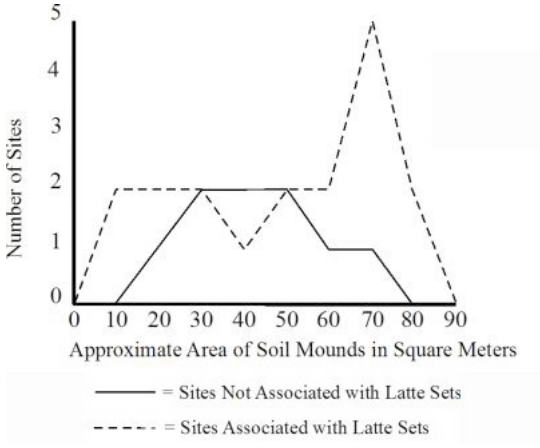

Figure 6. A Comparison of the Distribution of the Approximate Area of Soil Mounds Between Associated and Non-Associated Contexts for Mounds Less Than 100 Meters.

Based upon this preliminary examination of the charcoal stained earth mounds it appears that there are trends in the data indicating that mounds associated with latte sites have larger areas than those that are not associated with latte sites. However, it is not clear what these patterns reflect. It may mean that activities represented by these features occurred more frequently in a residential setting. It may mean that different activities that left similar feature residues were taking place in different areas. It could also mean that similar burning episodes were taking place in different settings but were conducted for a longer period of time at latte residences leading to larger areas of residue. Possible activities that might lead to the charcoal stained soil mounds in the project area include; plant processing, latte stone shaping, mineral or soil processing for pigment, mastic or lacquer preparation, bending and hardening bamboo (for the production of nets and fish traps or for other uses), lime production, the firing of pottery, and cooking.

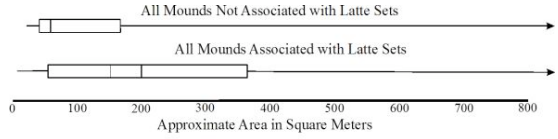

Figure 7. A Comparison of the Distribution of the Approximate Area of Soil Mounds Between Associated and Non-Associated Contexts Using a Box and Whisker Plot.

Examination of the site map with all associated mound sites highlighted revealed another possibly important pattern in the data. There are two distinct clusters within the data with a single outlier, Site #55. All of the associated mounds are found in the southeast quadrant of the project area except Site #55 that is located in the northwest quadrant. The cluster of sites in the southeast quadrant of the project area is bifurcated by the Gampapa fault scarp. Eleven sites are located to the north of the scarp and six sites are located to the south. The clusters of these sites are also spatially distinct but the Gampapa fault scarp is a clear line of demarcation (figure 8).

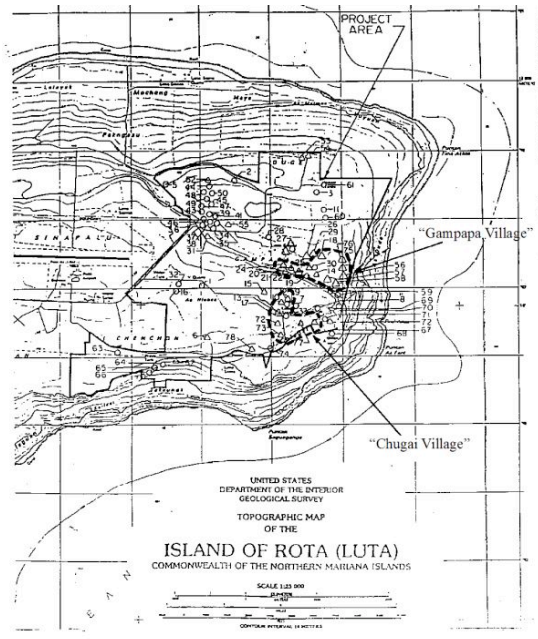

Figure 8. The Location of "Gampapa Village" and "Chugai Village" Within the Project Area

Figure 8. The Location of "Gampapa Village" and "Chugai Village" Within the Project Area.

Due to the manner in which the site numbers were designated in the initial survey, individual latte structural remains and associated features were treated as separate sites. Thus, the sites representing individual residences within a village are effectively sundered from their relationship with the village as a whole. In an attempt to determine whether sites within the two distinct clusters showed affinities, data from both clusters were compiled and compared to each other and to non-associated mounds. The data from the eleven sites north of the Gampapa fault scarp were combined and designated "Gampapa Village". The data from the six sites south of the scarp were combined and designated "Chuigai Village".

There are 28 charcoal stained mounds associated with "Gampapa Village". Three of the mounds have no information recorded so only 25 will be described here. The mean for the approximate area of mounds at "Gampapa Village" is 494 square meters with the median being 312 square meters. The standard deviation for this distribution is 535. The overall distribution of feature size for "Gampapa Village" is shown in figure 9.

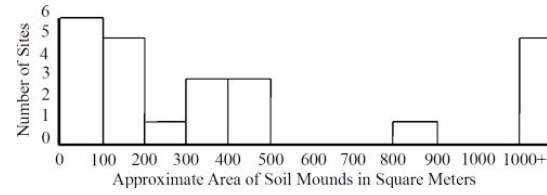

Figure 9. The Distribution of the Approximate Area of Soil Mounds Within "Gampapa Village".

There are ten charcoal stained mounds associated with "Chiugai Village". The mean for the approximate area of mounds located within this cluster is 88.7 square meters and the median is 68.5 square meters. The standard deviation for this distribution is 66.3. The distribution of feature size for this site cluster is illustrated in figure 9. These descriptive statistics clearly reveal that mounds at "Chuigai Village" tend to be much smaller in general and more uniform in size than at Gampapa.

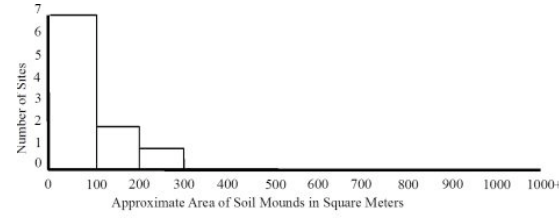

Figure 10. The Distribution of the Approximate Area of Soil Mounds Within "Chugai Village".

A comparison of the curves displayed in Figure 9 and figure 10 depicts major differences in the sizes of the charcoal stained mounds at the two site clusters. Mounds at "Chiugai Village" follow the standard pattern for the project area with the vast majority less than 100 square meters in area. Mounds at "Gampapa Village", however, have a very different pattern. There are almost as many mounds in the 101-200 square meter range as the 0-100 square meter range and the curve is skewed to the right by the comparatively large numbers of soil mounds within the 301-400 square meter and 401-500 square meter ranges. Finally, there is a second major peak in the 1000+ square meter range. This peak is of such an extent that it almost matches the initial peak between 0-100 square meters. The comparison of the curves between the two site clusters

again reveals that soil mounds at "Gampapa Village" tend to be much larger than those at "Chiugai Village". Also there appears to be a subclass of charcoal stained soil mounds at the high end of the range at "Gampapa Village" that are not present at "Chiugai Village". A Box and Whisker plot of the two distributions also clearly shows the greater size and range of feature size at "Gampapa Village" (Figure 11).

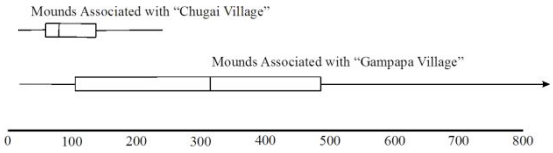

Figure 11. A Comparison of the Distribution of the Approximate Area of Soil Mounds between "Chugai" and "Gampapa Villages" Using a Box and Whisker Plot.

A simple exploration of the data from the initial survey of the Rota Agricultural Homestead project has thus revealed two patterns within the charcoal stained soil mound area data. The first is that mounds that are associated with latte sets and by extension within latte villages tend to be larger. The second is that there are substantial differences in the sizes of mounds between villages. "Gampapa Village" tends to have larger mounds in general and also possesses a group of mounds that are substantially larger than those found in other latte contexts in the project area. If these features are tied to related economic activities this indicates that these were performed with greater intensity or for longer duration within "Gampapa Village" as compared to "Chuigai Village".

Having identified patterns in the data, the cautious researcher still has to ask Clive Orton's question of "is there a case to be made?" Put differently, are the differences in the data patterns statistically significant such that we can definitely state that they can not be related to chance. A Kolmogorov-Smirnov test of statistical significance was run on both of the patterns discovered in the data. The difference in mound size between Gampapa and Chiugai villages was significant at the 5% level. The differences in mound size between features discovered with latte sets and those not associated with latte sets is not significant at the 5% level. This does not necessarily prove that there is no difference between the two associations but it does mean that we can treat these differences only as trends in the data. Previous land clearing which demolished the remnants of latte structures almost certainly has muddied the data and this is reflected by the lack of confidence expressed in the Smirnov test.

DISCUSSION

Two patterns have been detected in the data. The pattern of smaller soil mounds not associated with latte sets, admittedly, can only be characterized as a trend because it has not been proven statistically significant. However, this does not mean that burning/processing episodes were *not* smaller or less common outside of latte villages only that we can not prove it to archaeological standards. The difference in mound sizes between the village of Gampapa and Chugai on the other hand, are of such a level that they meet even robust statistical tests.

So, what does this mean? Given, that this information is gathered from a single archaeological survey with only minimal testing, I am reluctant to make any definitive statements. However, I believe that these patterns in conjunction with other archaeological discoveries allow hypothesis building concerning late Latte Period social and economic differentiation and stratification.

The period of 1200 to 1600 AD was a time of intense social fermentation in the Marianas. Settlement studies indicate a complex pattern of settlement expansion and abandonment of the interior areas of the major southern islands (Hunter-Anderson, Butler). In research on the Manenggon Hills area on Guam, Hunter-Anderson has formulated a model of fine grained settlement change focusing on this period. In her model, settlement increases dramatically in the 1200s, retreats in the 1300s, reaches its greatest peak in the 1400s, retreats again in the 1500s, and in the 1600s slightly increases. Butler, combining data from the Rota Agricultural Homestead Project, Alaguan, and

his 1995 survey of the east and southeast coast (1997: 326) postulates a similar history on Rota.

A study by Dixon (2000:98) indicates slightly different patterns on Tinian, with settlement expansion into the interior not occurring until 1300 AD. Dixon has also hypothesized that the character of resource exploitation within the interior changed along with expanded settlement. Previous to 1300 he postulates a low intensity harvest of plant resources that "required a relatively low labor investment and a high resistance to environmental stress" that would be redistributed along kinship lines. Following settlement expansion into the interior, existing coastal agricultural practices of large permanent, though shifting, fields were extended into the center of Tinian as well.

In addition to changes in settlement practices, and presumably related agricultural practices, there is also evidence of social stratification occurring. Graves has discussed social differentiation and stratification based primarily upon latte stone architecture. He postulates at least a two tier social system with higher status corporate family groups living in latte structures and lower status groups in wooden pole structures. Craib has disputed this, proposing that latte structures were used as residences by all levels of Chamorro society (Russell 1998:145-147). A point in Craib's favor is that no wooden pole based houses have been reported within the archaeological literature on the Marianas.

In discussing evidence of higher levels of social ranking, Graves has turned to two of the most spectacular sites in the Northern Marianas, The House of Taga on Tinian and the As Nieves Quarry on Rota. The House of Taga is the largest latte set ever erected and may represent the largest latte structure possible given materials and ancient engineering techniques. The quarry at As Nieves holds latte stones that if erected would have been even larger than the House of Taga. Based on these two sites Graves proposes an additional level of social ranking on Tinian and possibly Rota. He believes that this additional level of social authority is a late prehistoric development. Interestingly As Nieves is within 1 1/2 kilometers of both Gampapa village and Chiugai village.

Trade, both within and among islands, must also have increased in the Latte Period in the Northern Marianas. Certainly, a considerably greater amount of volcanic stone has been discovered at sites from this time frame (Craib 1998). Unpublished research on the chemical composition of volcanic stone tools and *lusong* indicate that the raw material sources are located in the northern arc of the Marianas and not from Guam, Rota, Tinian, or Saipan. Recent temper analyses from pottery sherds discovered on Rota, Tinian, and Aguiguan also indicate that at least volcanic sand, if not the pots themselves, must have been brought in from Saipan or Guam (Dickenson). The presence of *lusong* throughout Tinian and Aguiguan is another clear example of trading relationships during the Latte Period. Tinian has only two limited volcanic outcrops on the island and Aguiguan has none. Yet these large volcanic mortars are common discoveries at Latte period sites on both islands.

To return to feature patterning on the eastern plateau of Rota, the difference in mound areas between the villages of Gampapa and Chiugai clearly indicate either a difference in activities or a difference in the intensity of activities carried out at the two villages. These mounds reflect economic management decisions carried out at Gampapa and Chugai whether at the individual or corporate level.

Further archaeological testing emphasizing the recovery of macrobotanical remains as well as artifacts discarded or broken in the midst of manufacture is needed to more positively identify what ancient Chamorro people were doing at these mound sites. Mounds may well be a marker for economic activities not well preserved within the archaeological record such as the manufacture of; coconut oil, paint, whitewash, or bamboo baskets, fish traps, furniture or armor. They may also be the sites of the open firing of pottery or the heat treatment of lithic raw materials.

The greater number and larger sized mounds at Gampapa Village indicate considerably more burning or heat processing episodes

compared to Chugai. Gampapa may have been involved in any of the activities discussed above. This evidence suggests economic specialization in the late Latte Period and it may reflect economic differentiation slowly evolving between villages that in turn fueled social distinctions. Gampapa village may have been attempting to create a special niche in the economic system by specializing in a class of commodities or it may reflect growing authority of local leaders who were able to acquire greater amounts of goods or public labor for personal or village projects.

Social competition between villages is a major theme in one of the few Chamorro folk tales that have been preserved that predate European Contact (Mueller 1913 in Hunter-Anderson 1995). This tale is set in Matmos, a traditional region on Rota that is approximately 1 1/2 kilometers from the study area. In the folktale a chief from this region engaged in a rice growing competition with another chief on Rota. Matmos is rugged and poorly suited for raising rice. In one version of the story the people became so angry with being forced to work in the rice fields that they drowned the chief. In another version of the tale the chief drowned himself after he realized that he could not win the competition. In either case the story explains the regions name, as *matmos* is the Chamorro word for drowned.

Evidence of economic differentiation between villages also brings up the possibility of differentiation within villages and implications for social ranking. In Grave's (1986:15) article on social ranking in the Marianas, still one of the most important statements on this topic, he asserts that all of the lines of evidence he considered "support the hypothesis of little or no activity specialization or differentiation at latte sets". This conclusion is based on a consideration of the presence/absence of artifact and feature types at Latte sets on Guam, Rota, Tinian, and Saipan.

The analysis of mound sites from the Rota Agricultural Homestead Project indicates that the location and density of artifact deposits and features may be a more important measure for interpreting economic differentiation between latte sets rather than simple presence/absence. To date, latte architecture has been one of the most important line of evidence for examining Chamorro social structure. They are sometimes spectacular, readily visible during survey, and offer multiple measurements to interpret. However, the residential structure upon which they were based was only one portion of ancient life. It may be that the latte sets best use in interpreting economic activities is as site furniture. These were the permanent structures around which day to day life and activities were oriented but the evidence for how people made their living and interacted with one another is still locked in the fragmented pottery, shell, and stone that they left behind.

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