

A Reconstruction of 15th Century Calatagan Community

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I. Introduction:

Method: Fox (n.d.) recommends five ways for reconstructing past Filipino communities in the absence of archaeological site reports. These are, first, a careful persual and evaluation of 16th century Spanish documents; second, use of folk-history and folk-literature which may give clues as to the movement and distribution of people; third, study of ethnographic monographs of contemporary pagan groups who still retain many pre-Spanish traits; fourth, comparative study of Christian Filipino and Muslim Filipino cultures, and of the cultures which have exerted major historical influences upon the Philippines in the past; and fifth, analyze geographical or ecological factors influencing the location and size of communities and of the character of community life.

There are a number of sites in the Calatagan Peninsula but only a few published reports. Therefore to supplement the archaeological evidences from published reports, it is intended here that, with some modifications, Fox' recommendations be followed.

The first of these can be used in these manners: firstly, descriptions of the 16th century land and people of the Philippines as a whole (or major areas such as the Luzon area, or the Tagalog-speaking area) be applied to the Calatagan Peninsula; and secondly, descriptions of the 16th century land and people of the Batangas area and immediate vicinity be applied to the Calatagan Peninsula.

The second one is difficult to follow. There is the problem of scarcity of published materials on folk-history and folk-literature on the Batangas area not to speak of the Calatagan Peninsula. Besides, whatever folk materials the present Calatagan people have may not necessarily be relevant to the 15th century Calatagan. The temporal

target is narrow, the reconstruction being on a short and recent era.

Regarding the third recommendation, there are many choices as to what "pagan" group ethnographic monographs to study: the Dumagats, the Negritos, the Northern Luzon mountain peoples, the pagan groups of Mindoro and Palawan. However, the Dumagats and Negritos may safely be assumed to have no bearing on the Calatagan 15th century people.

In one sense, the fourth recommendation is applicable to Calatagan, in another sense, it is not. The present population is Christian but it is to be remembered that the Muslim-influenced area of Luzon reached as far as Pampanga. In that sense, a comparative study of Christian and Muslim Filipinos is applicable to 15th century Calatagan. In the sense that there is no continuity of descent of 15th century people of Calatagan to the present-day population, the comparative study will not do if the possibility of migrants coming from Islam uninfluenced parts of the Philippines such as Pangasinan is taken into consideration.

The fifth one may also be used with reference to the peninsula. Since these five recommendations are only supplementary ways, the backbone of the reconstruction of the 15th century Calatagan community will center on archaeological evidences invoking the five ways when called for.

Calatagan Peninsula: Calatagan Peninsula is located on the northwestern part of Batangas Province. To its west is the South China Sea, to its east is the Pagapas Bay, to its south is the Balayan Bay and to its north is the Batangas mainland. The northern part of the peninsula is of rolling hills, the southern part rugged, and on both sides of the strip are the shores. There are no large rivers. The forest on the southern portion is mainly secondary. The southwesterly trade winds bearing rain come in late June through July and August up to early September. When it does not rain it is very hot and dry.

The present people of Calatagan are immigrants. There is no indication so far that the 15th century Calatagan people have a significant number of descendants in the peninsula. How this has happened is mystery; explanations are limited to speculations. Most of the immigrants are Tagalogs but there are others. The 1948 census gives a figure of 1,852 people. Fox (1959) says it seems that the population of Calatagan was larger then than now.

The area of northern Calatagan was first opened up by Don Domingo Roxas during the period 1829 to 1843. Don Antonio Roxas took over in 1910. The opening of a sugar central attracted immigrants in 1916. The Hacienda Calatagan had been maintained by the Zobel and Ayala families since 1929 up to 1957 when the area was subdivided and sold to the tenants.

The Calatagan sites were first reported in 1934. As of 1959 there are eleven major burial and habitation-burial sites in Calatagan. These are Punta Sunog, Layon, Kay Tomas, Pulong Bakaw, Pinagpatayan no. 1 and no. 2, Balong Bato, Palatpat, Dayap, Punta Buwaya, Balitok, and Parola. All of them belonged to the same time period.

The Finds: Beyer (1947, 25-43) says that "there were also found Spanish period objects." Except for the coins he is not specific. Lacking further information on this matter, it is better to think of the Calatagan sites as properly belonging to the pre-Spanish period, the sites being associated with Chinese wares which are easily datable when properly excavated. Fox (1962, 248) gives a time period of approximately 150 years inferring from the nature of the burial sites and of a consideration of past population in the 15th century Calatagan community.

The finds to be considered here are: the Chinese porcelains and stonewares, the local earthenwares, parts of two chests, iron tools and weapons, Chinese coins, bones of pigs and deers, sea shell middens, spindle whorls, ornaments of glass, brass, copper and gold, filed teeth, brain coral human figure, identification marks of graves, skeletons without skulls, skulls without skeletons, infant jar burial, inverted Chinese plates, Karitunan Buddhist image, and the pot with inscriptions.

II. Archaeological Evidences:

Chinese Porcelains and Stonewares: Calatagan excavations yielded a vast quantity of Chinese porcelains and stonewares of the Yuan and early Ming types. Only one piece is Sung which may have been a case of cultural lag. These finds reveal that the people of Calatagan like the rest of the country traded with the Chinese at (and even before) that time period in question. Fox (1959, 332) says there is a "direct trade by water into Calatagan." This position can easily be inferred from the geography of Calatagan, i.e., except on the north side, all of Calatagan Peninsula is in direct contact with water. It is unreasonable to suppose that trade would be indirect going from the north passing through mountains and jungles with all the hazards attendant to such routes. The most one could do if one had to pass through jungles and mountains was to hug close to the rivers and valleys (Fox, n.d.). It must be remembered though that there are no large rivers in the Peninsula.

All are agreed that the high quantity can be correlated with the low quality of those porcelains so found in the peninsula like the rest of trade wares found in Philippine sites. It is another indication of the pattern of dumping low quality goods not only in the country

but also the rest of Southeast Asia where there was a Chinese monopoly of trade.¹ Finely executed pieces "do occur, however, and were probably brought as gifts to the chiefs or local aristocracy rather than for common trade" (Robb, 1930, 233).

In relation to a possibility that the presence of porcelain indicated class ranking, Fox (1959, 345) dismisses the idea of chieftain class. He says that it rather depended on the opportunity for trading with the Chinese. If this was true, then it can safely be said that trade of the Calatagan area (if not of the Batangas area) was carried out on an irregular basis. If people knew the time for abundance and scarcity then they could act accordingly. As can be seen from the arrangement of the porcelain vis-à-vis local pots, there was much prestige involved in porcelain. This being so, would it not be wiser for the people to anticipate scarcity in order that trade wares be not placed at random as grave furnitures were it the case of a regular trade.

"Pre-Spanish trade might have centered at Balong Bato," according to Fox (1959, 332). Again, this is a matter of ecology. There is a major channel through reef over at this area. Reefs serve well as breakwater. It can also be seen that the site is confronted with a small gulf which is another contributory factor of safe landings.

The concentration of sites on the western shores of the peninsula points out the obvious without reference to history books. Trade passed through from China along the western coast of the Philippines to other southern areas. Regarding Calatagan, the trading ships coming from Manila Bay would be going south and in the way pass through the western shores of Calatagan on the way probably to Taal-Balayan area where there was reported a number of people. Maybe Chinese commerce with well-peopled areas like Manila, Taal, Cebu, etc., was carried out on a regular basis, but the trade with minor ports depended on whether at a particular sailing the ships contained an excess number of unsold goods, perhaps highly in excess of the intake of the major well-populated areas; in which case the ships had to take time out on minor ports to discharge the excess load. That must have been the pattern of trade with Calatagan.

Local Earthenwares: The numerous earthenwares found indicated a past persistence of the pottery tradition in Calatagan as well as in other parts of the country. This might have been caused by the inability of imported wares to supply the demand or it might have been the case of earthenwares having a distinct function from porcelains and stonewares or the value of imported wares might have

1. This paper was written May 1965. Up to November 20, 1968 this view was held on to by authorities in the Philippines. But at the *Research Foundation for Archaeology and Anthropology* symposium of said date, the view was disputed.

necessitated a supply of cheaper ones. All of these alternatives might have been true all at the same time. The large demand naturally was affected by the broad area of functions. Solheim II lists a number of functions of pottery in Southeast Asia both in the past and present time perspectives. The most important function of earthenwares in the past was for storage of liquids, particularly water. "Earthenware pottery was probably more commonly used in the past than it is today for bringing water from its source to the house" (Solheim II, 1961, 28). This statement can readily be appreciated if the Calatagan Peninsula itself is taken into consideration. It is to be recalled that there are no large rivers in that area. What more proof is needed to see that the primary function of earthenware in Calatagan was for the storage and transport of water? Other functions such as ceremonial ones must have been incidental and as is said depended on the presence of Chinese trade at a particular time. This brings us to the distinct functions of porcelains and stonewares. Judging from the arrangement of grave furnitures at least in Calatagan, the porcelains had for its functions ceremonial ones, while earthenwares utilitarian ones. The people then, either by the flexibility of their character or by force of necessity or both did not mutually exclude either wares from the other functions.

Although the imported Chinese wares were low in quality in comparison with other Chinese wares, they were high in comparison to local earthenwares, and consequently high in trade value. Being so, why did the people of Calatagan or any other people in the Philippines not manufacture their own porcelains? The answer is that the complicated process of porcelain manufacture prevented a local industry. "Eventually the secret of true porcelain was discovered in 1709 by Johann Fredrick Bottger in Germany" (Honey, 1954, 11). It took the Europeans until 1707, only forty-one years prior to the Industrial Revolution, to "discover" the secret of porcelain. After the problem of choosing and processing the proper clay, the major problem would be in the firing. The Europeans fired the porcelain at 1,450 degrees Centigrade (Honey, 1954, 12). These were fired in kilns but the people of the Philippines among other peoples of Oceania used direct firing (Solheim II, 1952). Shepard (1956, 83) says, "it is safe to say that 1,000 degrees Centigrade was rarely attained in direct firing in the open." How then could have porcelain been made?

Parts of Two Chests: The two chests may indicate that some of the people of Calatagan got "rich" enough to necessitate keeping chests where valuables could be stored. For a barter economy these must have been specialists of some sort. Individual production is presumed to have been that of a subsistence one and therefore on a basis where accumulation of wealth would be hard unless one were a

specialist.

Iron Tools and Weapons: The people of Calatagan used large knives (*bolo*-type) and spears, both made of iron. Both could be used as both tools and weapons. The dual functions of the *bolo* can still be observed in many rural areas. On the other hand, spears could be used to bore holes in the *kaingin* farm (swidden) in much the same way as sticks (sometimes formed in the shape of a spear, as among the Bukidnons of today) are used by many mountain tribes employing the slash-and-burn method of farming. Spears as weapons indicate a hunting aspect of the economic system.

The Chinese Coins: The Chinese coins found in Calatagan, particularly at the Layon site, were of Ming date. From the lack of a good number of coins, we infer at once that the economic system was based on barter. Coins were not used as legal tender. Their possible use was as ornament or as amulet. Even in present times objects are so re-interpreted. A pen can merely be an ornament, a cross an amulet. These re-interpretations reflect social values. As will always be, a priority was placed on looking good in front of other persons. As today, there was a general belief on what is termed as "mana". The amulet would have a "mana" which could be controlled by mere possession of the object.

Bones of Pigs and Deer: The association of pig and deer bones in the graves gives away the custom of offering or of providing food for the journey of the soul to whatever was believed to be its destination. It can not be ascertained as to what cosmic plan the people of Calatagan believed in. Probably they believed in the supreme creator Bathala as is general in the area even today albeit similarity with the Christian concept. But there is no doubt that animism, animatism, ancestor worship, and concepts of minor gods were all there. We are inferring here from the ethnographic data of mountain peoples of present day Philippines. Even among the mountain peoples of the Mountain Province there are a variety of religious systems despite the limited area and a contiguity. Divination through birds and beasts in whatever manner must also have existed in Calatagan.

Another important inference from the above is that there was good game in the forests of Calatagan then. Pig and deer meat supplemented the protein intake from the sea shells and sea fishes. There must have existed some of the weapons traditionally associated with hunting. Such weapons are the spears, blowguns, bows-and-arrow, etc., notwithstanding any association of any particular weapon with particular people, as for example the first mentioned weapon with the Indonesian type, the second with the Photo-Malays, the third with the Negroid type, etc. Also, traps for animals may have been used as are

still sporadically used in the Philippines.

Sea Shell Middens: In major habitation sites, there is found a significant amount of sea shell middens. These middens give us an idea of the extent of the importance of sea food as a major source of protein. It must be remembered that the Calatagan sites are situated near the sea. More sites would probably be found at the shorelines. "There is some evidence of dwellings being built in shallow water near the shores at Calatagan, Batangas, during the 14th and 15th centuries," (Fox, n.d., 385).

As the people lived near the shores or near rivers, the means of transportation was by water. The people made their own boats from the forest trees inland. We presume, the form of the boat was that of the present banca probably with and without outriggers just like today. Sea-oriented as they were, they could also have made big boats ("barangays") that would enable them to trade with other areas of Batangas, Mindoro, probably Marinduque, and Manila Bay area. But that is stretching the imagination too much. What would they trade with these places? Rattan for bamboo, clams for fishes, etc.? The most reasonable assumption would be that people of Calatagan were passive in their trade, i.e., they waited for the ships to come. Then they probably traded forest products such as wax, honey, rattan, etc., for beads, silk, porcelains, stonewares, etc.

Spindle Whorls: The spindle whorls found were earthenwares so that they survived. The presence of this kind of tool indicates a presence of the knowledge of weaving. Like the earthenwares, the clothes were probably not comparable to imported ones from China (not to speak of silk). If weaving were present, the raw materials were present in Calatagan, for this was not yet the time of the later conditions when one area supplies the raw materials and another area manufactures the end-products. The raw materials could be kapok, maguey, hemp, and other fibrous plants. The spindle whorls were placed at the graves. However, no proof of its relation to sex of the individual associated with it has yet been presented.

Ornaments of Glass, Brass, Copper, and Gold: There is no reason to suspect that the ornaments were manufactured in Calatagan. Beads were infrequent among the finds, the possible explanation would be that the beads were made of perishable materials. The use of brass anklets and bracelets as adornments of present day mountain peoples is still evident. Rings were uncommon, a finger ring might have been used merely as a curiosity or conversation piece. There was a scarcity of gold objects. Gold was and is not scarce in the Philippines. How come? One theory that can be advanced is that the merchants responsible for the trade then, coming from areas where gold was a value for itself and

not only because of its characteristic as a medium best for shaping, did all they could to bring home whatever gold they found in the country.' The significance of these ornament aside from the social value was economic in nature. Like the Kalinga or the Ifugao, among others, ornaments were part of the heirlooms, and as such had security and social validation values. As heirlooms, these ornaments had around them certain rules concerning its disposition and ownership not perhaps as elaborate as in Ifugao, but nevertheless, there were rules and taboos (see Barton 1919 *passim*).

Filed Teeth: Among tribes of present-day Philippines filing teeth is popular and regarded as beautiful. Among the Matigsalog in Davao, for one, a man who does not file his teeth is regarded as resembling an animal. Such animal names as "babuy" (pig) and "aso" (dog) are appended to the personal names of unfiled-teethmen. Inferring from this, we can suppose the case was true also of the people of 15th century Calatagan.

Brain Coral Human Figure: The only reason why very few idols were found is that they were made of wood ordinarily. Found at Punta Vuwaya, this brain coral figure was exceptional. What could have made the artist to work on a harder material can be explained by a theory that there had been specialists in Calatagan. Only a full-time artist would take the trouble out of a day's work to concentrate on a difficult material when he could have had an easier one.

Identification Marks of Graves: Fox lists three identification marks used in Calatagan. These were: giant clams or chunks of brain coral or both, superstructures built above graves, and whole or sherd earthenwares. "Generally in these islands, the dead are buried without delay, although not all are given the same pomp because the people are (word not understood *sic*) cover white sheet (*sic*), and bury the body next to their house or fields," (Quirino and Garcia, 1958, 431). If the people were buried without delay, a clam or a piece of brain coral, or sherds lying around the yard or the nearest pot would do well as identification marks. No time to make stone or wood markings. "But the chiefs are covered with the richest silken sheets they have and placed in an incorruptible wooden coffin in which some gold is placed in accordance with the rank of the deceased and bury him under a house built for the purpose" (Quirino and Garcia, 1958, 431). The superstructures referred to, then, could be the superstructures built for chiefs.

Skeletons Without Skulls: In some graves skeletons without skulls

2. In Scott's *Prehispanic Source Materials for the Study of Philippine History*, U.S.T.: 1968, it is suggested that one of the two explanations for the lack of Chinese account of gold trade with the natives of the Philippines was that the "Filipinos were not mining it intensively enough for export" (p. 74).

were found. Fox maintains that there were no signs of violence in taking out the skull which means that the skull was taken out of the whole body long after the person died. Headhunting was of course present; it still exists today in the Philippines. If the heads were taken and this still could not be attributed to headhunting, to what they can this be attributed? Or was it possible that some persons were crafty enough to claim a head of a dead person as that of one gotten through a violent means?

Skulls Without Skeletons: The graves containing skulls without skeletons represent what Fox (1959) has already termed as skull burial. This skull burial was widespread in the Philippines during the 14th and 15th centuries. We could perhaps suspect that burials of skeletons without skulls and of skulls without skeletons might be complementary. That is, a whole body might be primarily buried and after a while secondarily buried but only the head was taken. Such kind of secondary burial as far as ethnographic accounts are concerned have not yet been ascertained.

Infant Jar Burial: Jar burial had existed for the past 2,000 years (Fox, 1959), but only infant jar burial had persisted in the 15th century Calatagan perhaps due to the scarcity of jars since jars and other earthenwares were tied for the function of storing water. With regards to burying infants only small jars were needed. This partly explains why it was only at Pulong Bakaw site that this kind of burial was found.

Inverted Chinese Plates: Chinese plates were frequently found over the pubic area, saucers beneath the hands, Sawankhalok jarlets arranged above the head and near the waist and the feet. At the risk of being too imaginative, an interpretation of this arrangement is presented. Saucers are naturally held by the hand, so they were placed near the hands; jars could be balanced on the head, and so womenfolk even today carry small jars and pots on the head and therefore the placing of jarlets above the head in burial simulated the habit of the living. In a house, vessels are found all over. Literally they would be around, behind, near the waist, at one's feet, etc., and so they were also arranged in the graves.

But what about the porcelain on top of the pubic area; what was the meaning? Food is placed on plates, food comes from the soil, soil has to be fertile to produce food. The placing of the plates over the pubic area was a symbolism of the concern over one's reproductive capacity. In fact, throughout the world there is thought of a connection between the reproductive organs and that of the fertility of the soil (the abundance of food), and from there an association with plates would follow as it did. The placing of the plates over the pubic area reflected a social value placed on children. Because the economy was a sub-

sistence one, the more children there were the more help would one have.

Karitunan Buddhist Image: Francisco (1963) has discussed this image well. The image belonged to the 12th or 13th century A.D. but it was excavated on a 14th-15th century site. "Perhaps, the only significance that may be attributed to the image is its association with the Sawankhalok porcelain. This may explain in one way or another the early relations of the islands with the Siamese peoples, although it may possibly be indirect, if in the long run it may be proved that the image and the porcelain wares were brought to the island via the intervention of trade entrepreneurs," (Francisco, 1963, 18). Not only with China but with Siam and Annam as well was trade developed but more probably indirect rather than direct for such a small place as Calatagan.

Pot With Inscriptions: When the Spaniards came, they found that some groups of Filipinos had their own system of writing. Pardo de Tavera (1884) lists and illustrates twelve syllabaries. The pot found in Calatagan is the very first and only pot with inscriptions dug out archaeologically. Judging from the erratic combination of different groups' syllabaries the person responsible for the inscriptions did not stick to just one type of syllabary. Even authorities as of now can not come up with a translation of what was written although one report has it that it was a dedication of a young man or a woman for a dead parent. However it is speculative to suppose that there was no general literacy then in Calatagan as early accounts of Spaniards proved that there syllabaries were present and literacy was high especially among women. It could be that the pot in question was made by a woman who would be expected to be literate but was not; she could be an exception. On the other hand, she could be the rule which would point to non-literacy of the place.

III. Short Notes:

Economic Organization: As revealed above, the forests in Calatagan showed that the 15th century people of the place practiced "kaingin". As such, it can be concluded that the people did not stay in one place permanently. Barter was used as a means for trade. There was trade with China, Siam and Annam but only as a side effect of the major trade to highly populous places like the area of Manila Bay or Lake Taal or Laguna. Native forest products were traded for imported manufactured goods. Hunting and fishing supplemented the swidden agriculture. There were specialists notwithstanding the subsistence level economy.

Political Organization: According to the Maragtas, the validity of which, by the way, is doubted by some authorities (see Jocano, 1962), the party of Datu Puti proceeded from Panay to Batangas.³ One can say that the people of Calatagan were direct descendants of this migration. If they were so, the barangay system could have been practiced in Calatagan up to the 15th or so century. Nevertheless, a conception of a state could not have developed. Among the "pagan" groups, only the Kalinga approximate a development of a state political system. Despite the barangay system, the principle of collective responsibility and collection procedure, as Barton (1949) puts it, could have been operative. Each kin group was responsible for its members' acts, and each kin group would see to it that justice would be done for its members. Even after the coming of Christianity, lowlanders still retain vestiges of these principles.

Calatagan people of the 15th century being a swidden agricultural group can be thought of as resembling more or less the spatially loose groupings as are found among the Mangyans of Mindoro or Subanuns of Zamboanga, among other *kaingin* practising groups. As such the barangays could have worked superficially unless the Muslim sense of political organization had already been introduced effectively.

Social Organization: The people of Calatagan of the 15th century had no clan as was the case throughout the Philippines, for the social structure was basically bilateral, and therefore tending towards kin groupings. Residence, then, should be neolocal, and a family should be nuclear in scope. Ancestor worship then would be through both patrilineal and matrilineal sides (though generally ancestor worship occurs in unilineal reckonings and among clans). Kinship reckoning would have to be knowing who the descendants were of the eight pairs of one's great grandparents. If barangays were present, kinship groups would have had more priorities than the barangay unless the two groups coincided.

Religious Organization: Islam could have been the religion of the 15th century Calatagan people. Whether or not it was, that would mean very little at that time because its influence would be nominal, being a recent introduction. Animism, animatism, and ancestor worship persisted as evidenced by the archaeological finds. With all the boasting about Christianity in the North and Central Philippines today, the people still cling to age-old religious beliefs.

3. See Scott (1968, 87-103) for a discussion on the Maragtas controversy. "There is no reason to doubt that this legend preserves the memory of an actual event, but it is not possible to date the event itself or to decide which of its details are historic facts and which are the embellishments of generations of oral transmission" (p. 103).

The Chinese coins and the Karitunan image prove the existence of animatism. The brain coral human figure could be an *anitu*. Now, as the *anitu* represents (as the *anitu* is thought of today) not only animatism but also animism and ancestor worship (Kroeber, 1916, definition of *anitu*) so might *anitu* have done that time. Respect for dead relatives leads to ancestor worship, although it may not be as elaborate as the Chinese system. The inscriptions in a pot, jar burial, skull burial, identification marks of graves—these were all signs of the respect for the dead, and ultimately of ancestor worship.

Careri (1699, *passim*) refers to the people of Southern Luzon as “moors”. Moor was the equivalent of the present day derogatory term “Moro”, the term originally referring to the Muslims of Southern Spain. Despite these people being called Moors, he notes down that the Tagalogs had a definitely non-Muslim priest called “katalonan”. The shamans were women. They officiated in divination, sacrifices, burials, and other rituals. There were no temples in the sense of large buildings but there were altars (“dambana”) and idols (“anitu”). There were also tabooed trees, places, rocks, etc., just like among the present mountain peoples. Divination in Calatagan employed pig’s and chicken’s innards.

IV. Conclusion:

It was said that the people of the 15th century Calatagan had no direct link with the present population. Among the hypotheses explaining the phenomenon are: first, the people of Calatagan were massacred; second, the people of Calatagan had an epidemic (cholera); and third, Taal volcano exploded which either killed or drove away the people of Calatagan. That the people of Calatagan were massacred was negated by Fox (1969) invoking the non-violent nature of the conditions of the skeletons. That there was an epidemic could be negated in the same vein by posing the question: “If there was an epidemic, would there have been enough time for the surviving people of Calatagan to arrange the dead in the graves, perform the rituals we already inferred from the presence of grave furnitures, put identification markings, etc., before the next relative would die, considering the uncontrolability of any epidemic then?” That Taal Volcano exploded can be negated by the absence of any record which says so. This is a weak argument if we consider only the absence of records, but the explosions of volcanos can be calculated from the data of other eruptions. So far no calculation says Taal exploded at the end of the 15th century.

Here I offer the most “natural” explanation. It should be remembered that first, the people of Calatagan practiced *kaingin*; second, there

were no large rivers for drinking purposes, and third, the peninsula was limited in cultivable area. Now, swidden agriculture consumes much land and fertility of the soil is easily lost. For the same area of land another farming system will produce more. So it was then. And then, there were no large rivers. The central area of the peninsula was suitable for farming. If the people had settled farming they could have been accommodated in this one place. But a population growth complicated matters. Add the social structure requiring a married offspring to separate and have a nuclear family and a farm of his own, and what happened was an expansion to the north and to the south forested area. The deforestation over a small area did not give time for replacement of trees to preserve the water sheds. Then came erosion which resulted in less water both for drinking and for agriculture.

In such a situation there was only one alternative; to move out. It would be easier to move by sea as the northern side was heavily forested. Probably there were a few who were left behind but the social value placed on bringing along the rest of the kin group to a new fertile field is not only a 20th century phenomenon like the migration to Mindanao of settlers where most of the settlers in one place would come from one point of origin given time. It then could have been a slow but progressive migration away from the Calatagan peninsula that explains the phenomenon in question.

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