

## THE SUMMER FIELD SCHOOL ARCHAEOLOGICAL EXCAVATION IN CALATAGAN: THE KAY DAING HILL SITE (IV-1997-R)<sup>†</sup>

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### **ABSTRACT**

*Calatagan several years ago was the venue of the Field School in Archaeology under Robert B. Fox, and in 1997 was the venue of the University of the Philippines Archaeological Studies Program Summer Field School. With Calatagan's potential archaeological record, the gradually changing landscape and environment threatens the loss of part of our non-renewable cultural resource. This is a preliminary site report on the archaeological excavation in Calatagan of the Kay Daing Hill Site (IV-1997-R). The archaeological activity reveals significant archaeological finds that could substantiate interpretations of Calatagan pre-history.*

### **INTRODUCTION**

Batangas Province has been the area of archaeological research since 1932. Its municipality of Calatagan was the subject of an archaeological excavation in 1940 by Swedish Archaeologist Olov T. Janse. An extensive archaeological reconnaissance and excavation throughout the Calatagan Peninsula was carried out by the National Museum from 1958 to 1961, discovering 14<sup>th</sup>-15<sup>th</sup> century burial sites. Calatagan thirty-six years ago was the venue of the Field School in Archaeology under Robert B. Fox from April to June 1961 (Fox 1961).

In 1994, Wilfredo P. Ronquillo initiated the Calatagan Archaeological Project in a joint undertaking with Hidefumi Ogawa. Since 1994, archaeological survey and excavations by the National Museum along the eastern coastal area of the peninsula hinted informations on the early habitation sites in Calatagan. The Dayap site's archaeological finds reveal an earlier date than the previously reported sites at Calatagan (Bautista 1995a; Ronquillo and Ogawa 1995). Ulilang Bundok which is one of the eight sites found by Bautista in 1995 (Bautista 1995b), was systematically excavated and yielded significant finds dating from the Metal Age period ca. 500BC-AD500 (De la Torre 1997).

For the year 1997, Sitio Dayap of Barangay Tanagan was the venue of the University of the Philippines Archaeological Studies Program Summer Field School

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<sup>†</sup> Editors' note: after the Field School, excavation at Kay Daing was continued for two more weeks by teams from the Archaeology Division, National Museum of the Philippines. The site has been bulldozed since then for private use.

under Dr. Eusebio Z. Dizon. Under the supervision of the National Museum, the fieldwork aims at gathering information on pre-historic habitation sites at the east coastal area of Calatagan. Also, this fieldwork is an exercise on the part of the students in archaeology to hone their skills and knowledge of archaeological field methods and techniques.

This is a preliminary site report on the archaeological excavation of Kay Daing Hill Site (IV-1997-R) at Sitio Dayap, Barangay Tanagan in Calatagan, Batangas. The fieldwork involving six students from the UP ASP and a team from the National Museum was undertaken from 22 April to 17 May 1997. The inventory of archaeological specimens was completed in Manila on 24 May 1997. Discussions with the co-students for data and information pertaining to the site's archaeological excavation was maintained to prepare for a consolidated report. The fieldwork of the students had to be interrupted by the SEAMEO-SPAFA Conference on 5-10 May 1997. The Conference was a corollary activity for the students and a profitable chance to interact with the Southeast Asian archaeologists and museologists who participated in the said conference. The Calatagan sites of Ulilang Bundok and the Kay Daing Hill Site was visited by the Conference delegates on 9 May 1997.

## THE STUDY AREA

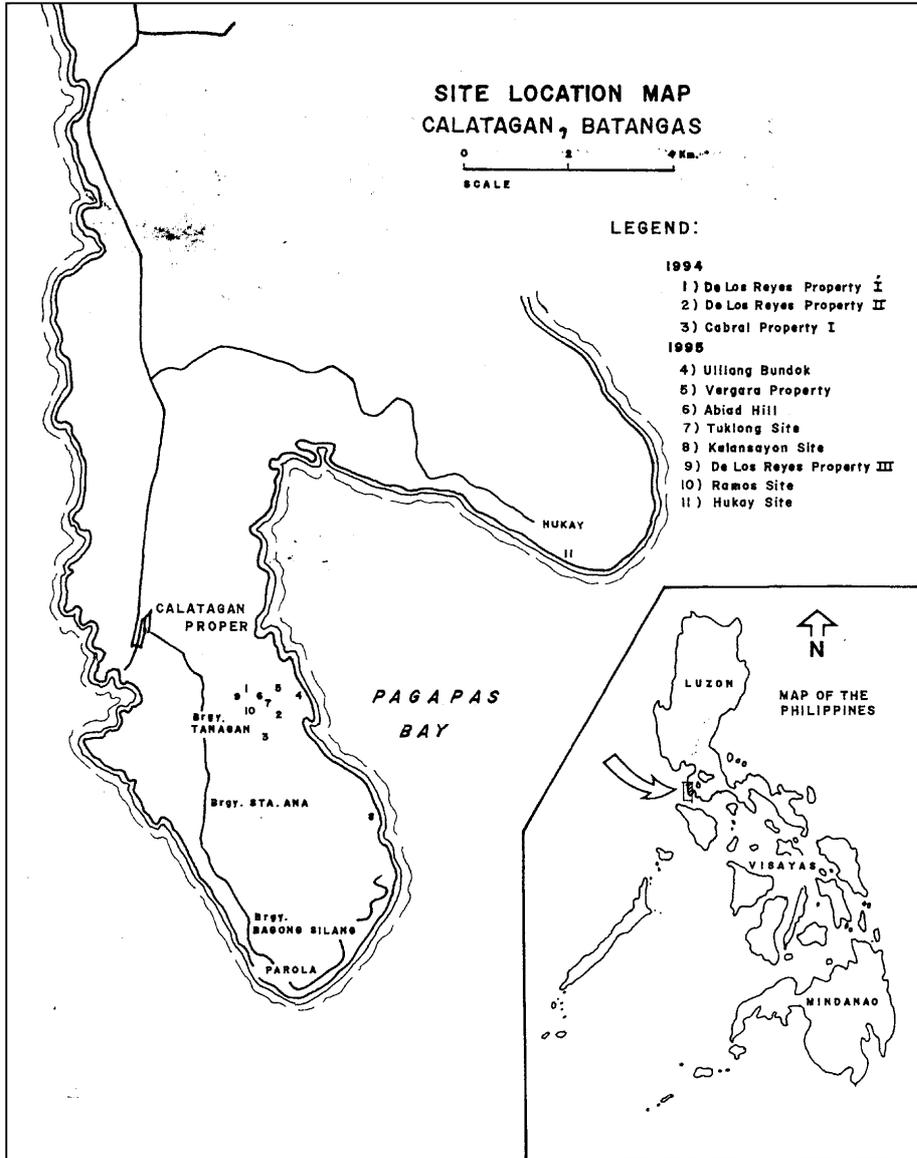
Calatagan occupies a peninsula located at North Latitude 13°50' and East Longitude 120°. It is bounded on the north by Lian and Balayan, on the east by the bays of Pagapas and Balayan, on the south by Verde Island Passage, and on the west by the South China Sea (Figure 1). Established as a municipality in 1912, Calatagan presently comprises 25 barangays, one of which is Barangay Tanagan.

The area of study is the hill site on the east coastal area of Sitio Dayap, Barangay Tanagan. The site is a hill comprising the property presently owned by Atty. Lorenzo Vergara. From the town proper of Calatagan, the site is accessible by approximately three kilometers of paved national road and a rough barangay road.

The hill is commonly known as **Kay Daing**. It has an approximate elevation of 11 meters and 50 centimeters above sea level. It is located northwest of the Ulilang Bundok Site. It is presently bounded by a gully with a windmill forming part of the Vergara property on the north, fish ponds owned by the Cardinal Corporation on both east and south, and the Cruz property on the west. The hill has relatively gentler slopes on its west, and its top is normally approached through the western slopes (Figure 2).

Vegetation covering the hill includes grasses (*Graminea*); trees of **ipil** (*Leucaena glauca* L.) and **camachile** (*Pithecellobium dulce*); and thorny bushes known as **alagaw pusa** and **aroma**. A nipa hut squats on the hill site's west edge. A portion on the hill's west has been bulldozed, revealing an outcrop of limestone formation, and a soil layer with deposits of earthenware sherds.

The hill locally known as **Kay Daing** was given a National Museum Accession Code of IV-1997-R.



**Figure 1.** Map of Calatagan showing archaeological sites discovered in 1994 and 1995 (taken from Dela Torre 1997).

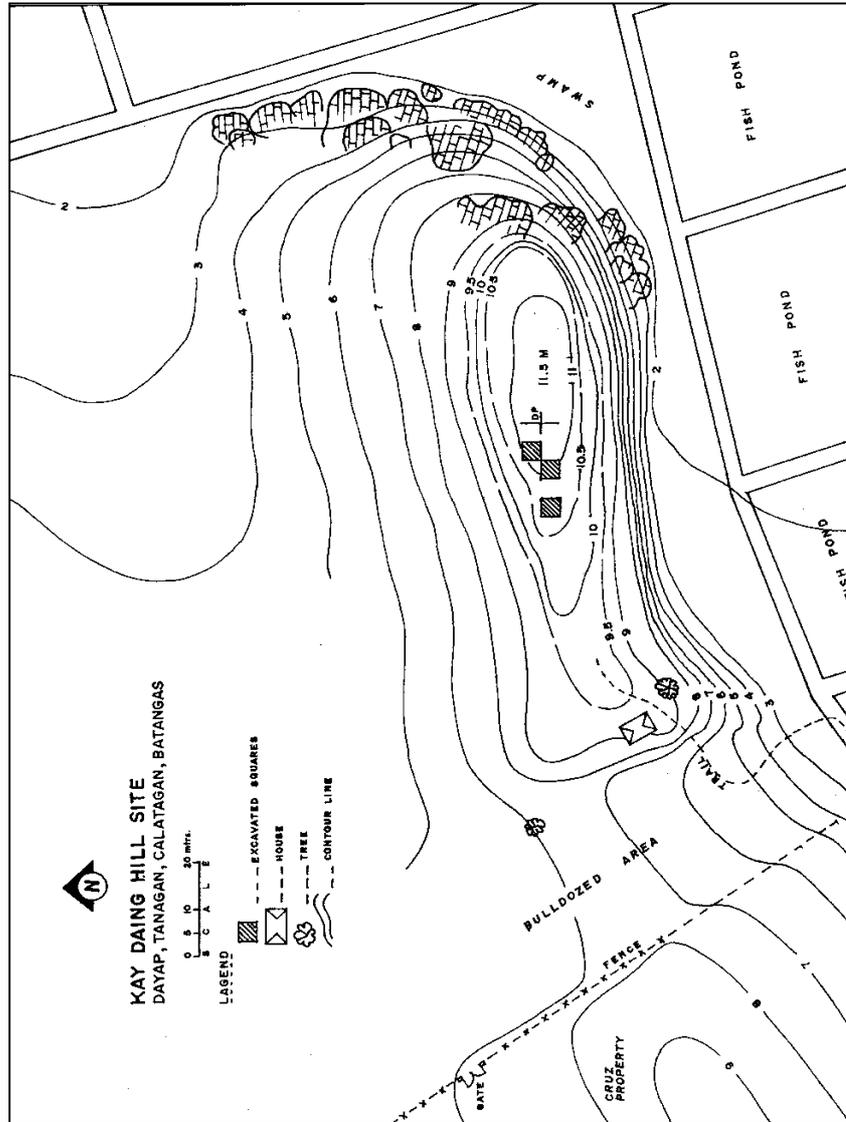


Figure 2. Map of the Kay Daing Hill Site.

### THE METHODOLOGY

The hilltop area of the Kay Daing Hill Site was first cleared of shrubs and weeds locally known as **aroma** and **alagaw pusa**. Overgrown shrubs were cut from its main stems.

The Datum Point (DP) was fixed arbitrarily at the highest elevation of the site, and was marked by a concrete cadastral mound. The Datum Point was established at 10 centimeters above the present soil surface. This Datum Point served as the N0E0

point or reference point of all horizontal and vertical measurements during the archaeological excavation.

The site was then mapped topographically with the use of an alidade, Brunton compass, 50-meter and 5-meter measuring tapes, and a stadia rod. A grid of four-meter square excavation units were laid out, staked, and extended west of the Datum Point. Each square grid were properly marked and defined by painted stakes, and given coordinate numbers. The Local Datum Point (LDP) for each square was established with the aid of a six-meter transparent water hose level, and was marked by twined colored strings.

There were three squares excavated namely: Square N1W2, Square S1W3, and Square S1W5. Random sampling was disregarded and the squares were chosen purposively based on the following considerations: a square with the least perceptible disturbance, and a location of low gradient at hilltop. The excavation was done by quadrants and by arbitrary levels of 10 centimeters. Soils from these arbitrary levels were also sieved.

The provenance of all artifacts and ecofacts recovered were measured in three dimensions (i.e. N-S, E-W, and depth). Measurements were made with the aid of a plumb bob, a line level, and a 5-meter measuring tape. The stratigraphic profile of the square walls were measured and plotted. This was done by measuring the vertical distance from the horizontal string level of LDP to the ground surface and the different layers. Measurements at intervals of 20 centimeters were recorded on a grid paper. The color codes of each layer in a moist state were determined by means of the Munsell Colour Chart.

All archaeological materials were properly cleaned, bagged and labeled. Accessioning of the significant artifacts and ecofacts were prioritized and completed. These artifacts and ecofacts were identified, accessioned and recorded using the bagging slip (Archaeo Form No. 8a). These archaeological materials were then recorded on the Inventory Record Form (Archaeo Form No. 5a).

Photographic documentation of the site, the activities, and the archaeological finds were conducted under available lighting condition using and SLR Nikon Camera with 28mm and 60mm Micro lenses and a YKL ASA 100 film.

## **THE RESULTS**

The Kay Daing Hill Site Archaeological Excavation from 22 April until 17 May 1997 has completed the systematic excavation of two four-meter squares (N1W2 and S1W3) and a quadrant of one four-meter square (S1W5). The excavation covered an area of 34 square meters and recovered a total of 3,272 specimens.

The excavation at Square S1W5 (LDP -40cm DP) was done on only the SE quadrant and was terminated at 60cm LDP. The sterile layer was reached at this level. The quadrant of this Square yielded shells, earthenware sherds, a bone fragment, a tooth, and iron slags.

The excavation at Square N1W2 (LDP -10cm DP) was done by quadrants, starting from an arbitrary level of 0-10cm LDP, and was terminated at a level of 60cm LDP. The cultural layer ranges from a depth of 8-60 centimeters. It yielded various

species and sizes of shells, and various sizes of earthenware sherds, a tooth, and bone fragments.

The excavation at Square S1W3 (LDP -20cm DP) started at an arbitrary level of 0-20cm LDP and was terminated at a level of 80cm LDP. The cultural layer ranges from a depth of 6-40 centimeters. The square yielded archaeological materials such as: beads of various forms, sizes, and colors; shells of various species and sizes; earthenware sherds of various sizes; a stone adze; an iron nail; and human teeth and bone fragments. The deepest part of the square was about 14-19cm in diameter located on the NW quadrant at NS 67-81cm, EW 269-288cm, 63-88cm LDP.

## Stratigraphy

There were two soil layers observed at the soil stratification on the walls of the squares excavated (Figures 3 and 4). Layer 1 is silty loam soil with pebble and gravel-sized coralline limestone fragments. The color is dark brown (Munsell Color Code 10 YR-3/3). Root penetrations, insect and worm penetrations were observed on this layer. Layer 2 is the limestone bedrock with white color (Munsell Color Code 5 YR-8/1). This is the sterile layer.

## The Archaeological Materials

Shells were the dominant finds in the four-meter squares. There were 13 species of shells (bivalves and univalves) observed and were identified as follows:

**sikad** (*Strombus (Canarium) urceus urceus* Linne)

**suso** (*Tebralia sulcata* (Born))

**bagongon** (*Telescopium telescopium* (Linne))

**susong dalaga** (*Tectus fenestratus* (Gmelin))

**lukan** (*Geloina coaxans* (Gmelin))

**kamot pusa** (*Gafrarium divaricatum* (Gmelin))

**bigatan** (*Anomalocardia (Anomalidiscus) aquamosus* (Linne))

**balakwit** (*Strombus luhuanus*)

**kikipa**

**bakabakahan**

**kima**

*Turbinidae* sp.

*Calliostoma* sp.

*Conus marmoreus*

oyster shell

According to some people from the Sitio, all these species of shells are edible. The small *Turbinidae* sp. are ideal feeds for ducks. Shell fragments also dominate the squares.

Earthenware sherds ranging from body and rim parts were recovered. Some earthenware sherds were observed to be red slipped and polished, coarse and incised. Also, it was observed that certain earthenware sherds are found associated with shells.

A stone adze was found in Square S1W3, NE Quadrant with a provenance of NS 40cm, EW 160cm, and 29cm LDP (-20cm DP). It is approximately 10cm below the soil surface.

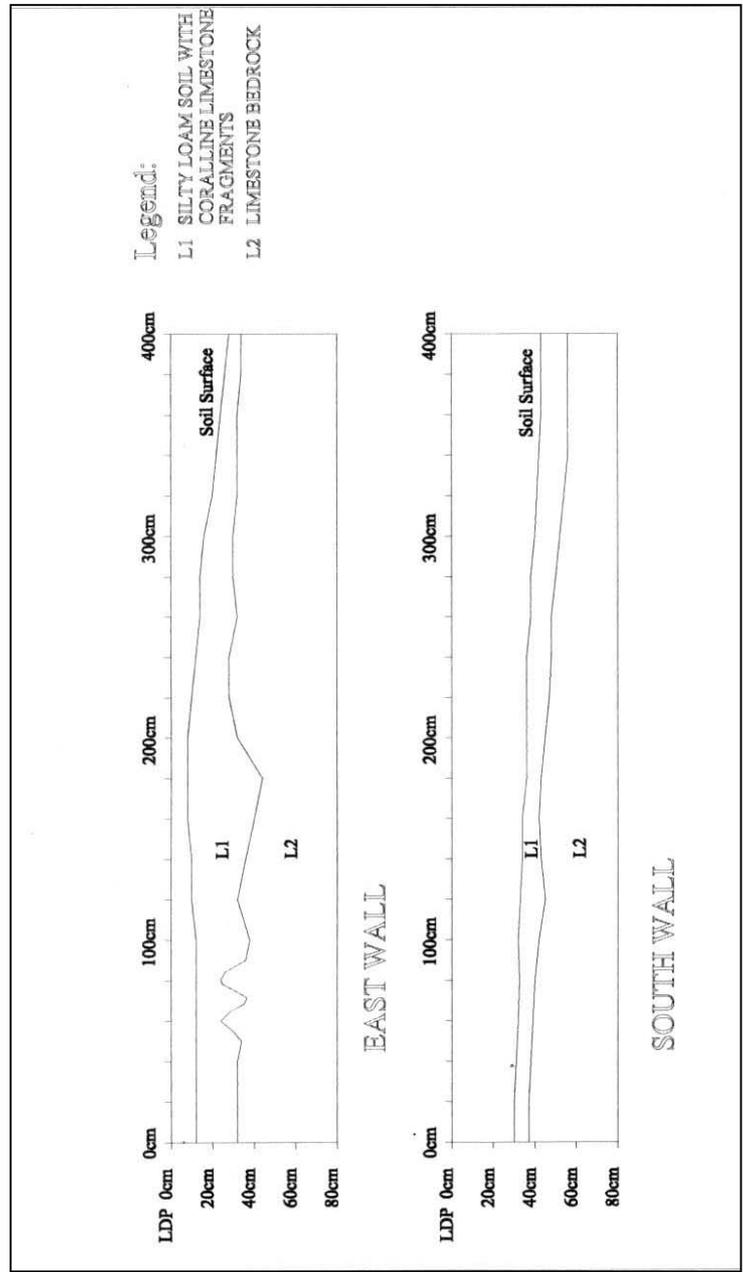
There were a total of eight bone fragments and four teeth recovered. Four bone fragments were unearthed at Square S1W3 with a provenance of:

1. Bone (IV-1997-R-594)- NS 72cm, EW 275cm, 73cm LDP
2. Bone (IV-1997-R-595)- NS 68cm, EW 276cm, 57cm LDP
3. Bone (IV-1997-R-596)- NS 60cm, EW 283cm, 54cm LDP
4. Bone (IV-1997-R-633)- NS 161cm, EW 208cm, 52cm LDP

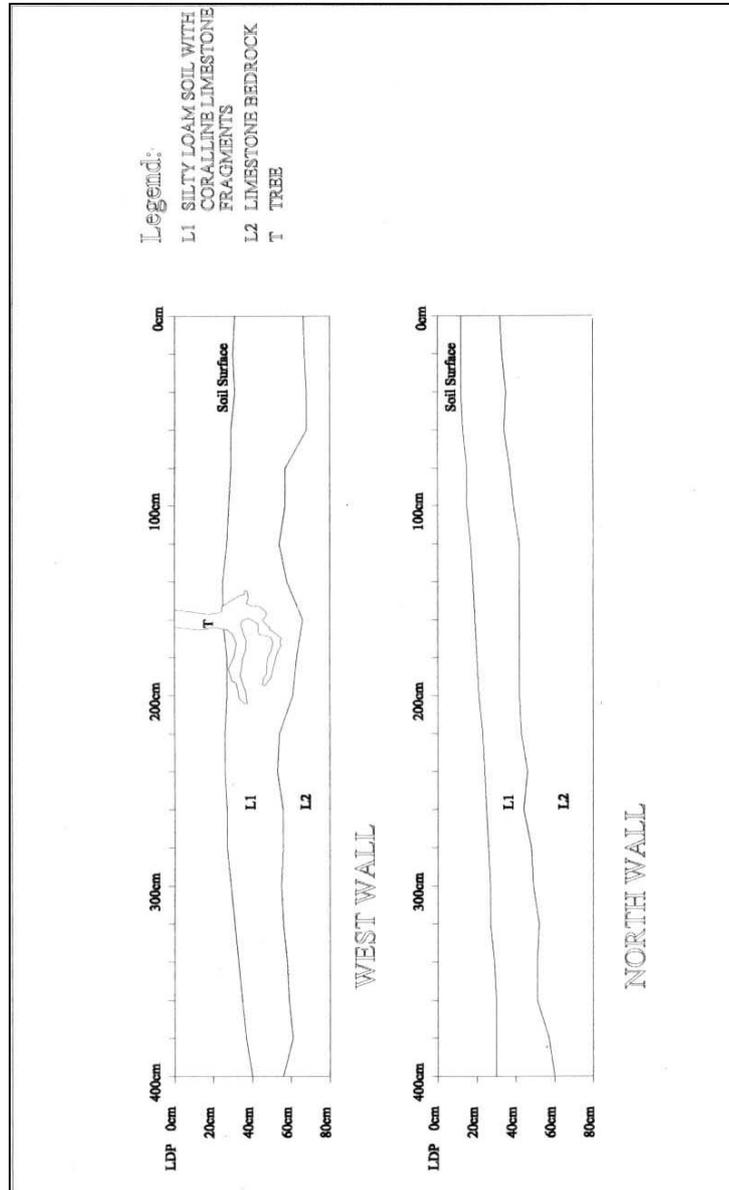
Also, from Square S1W3 two human molars were found associated with Bone (IV-1997-R-633) and three beads (one blue and two reds) with a provenance of NS 161cm, EW 208cm, 52cm LDP. The assemblage is approximately 32cm from the soil surface.

A total of 54 beads were recovered. One bead was a surface find from Square S3W13, and the 53 beads of varying forms and colors were dug systematically from Squares S2W5 and S1W3. The 52 beads recovered from Square S1W3 are distributed as follows: one (1) from East Wall clinging between 20-30cm LDP; two (2) from NE Quadrant between 29-49cm LDP; one (1) from SE Quadrant at 41cm LDP; three (3) from SW Quadrant between 28-45cm LDP; and 45 from NW Quadrant between 26-70cm LDP. There was a cluster of 34 beads found with a provenance of NS 173cm, EW 275cm, and 56cm to 60cm LDP. A rare bead of pendant type, color green was unearthed NS 240cm, EW 289cm, and 45cm LDP.

Metal objects were also recovered from the systematic excavation. An iron slag was found from Square S2W5 between a depth of 30-40cm LDP. From Square S1W3, an intrusive find of an iron nail was unearthed at the SW Quadrant between a depth of 30-40cm LDP.



**Figure 3.** Soil profiles of east and south walls, Square N1W2.



**Figure 4.** Soil profiles of west and north walls, Square N1W2.

## DISCUSSION

The archaeological activity at Sitio Dayap appears to be more of a salvage type of archaeology, based on the present situation where there is gradual destruction and alteration of the natural environment. An area adjacent to Kay Daing Hill Site has been bulldozed and part of our archaeological resource may have been lost.

The systematic excavation of Square S1W3 revealed one cultural layer yielding a relatively wide range of archaeological materials in terms of quantity and quality. The recovery of a contemporary iron nail at a depth (30-40cm LDP) comparatively deeper than the stone adze (at 29cm LDP) and some four beads (at 26-29cm LDP) unearthed, seems to suggest that a part of the site has been disturbed. On the other hand, the other 46 beads were recovered at a greater depth (at 40-70cm LDP), some in clusters and some in association with bone and teeth. Bone fragments, earthenware sherds and shells were also among the materials found at this level. The beads and the earthenware sherds could be diagnostic materials with provenance suggesting the Metal Age period. The shells could suggest subsistence diet and economy of the time. These materials could then be considered significant finds from the assumptions posed.

However, the significant finds recovered from the three excavated squares of Kay Daing Hill Site are far from being statistically representative of the whole site. The population of the hilltop area with a gradient of less than 10 percent between the hill's elevations of 9 meters and 11.5 meters will contain 92 four-meter square excavation units. From the total of 1,472 square meters of possible area for excavation, the 34 square meters of excavated area accounts for only 2.31 percent of the population size. Hence, the excavation of more squares is needed, and should consider the site's topographic and geologic features for a better understanding of the horizontal distribution of the archaeological record.

The archaeological materials unearthed await further archaeometric analysis. The site's significant earthenware sherds, the beads, and the shell species could be comparatively correlated with the materials from other previously systematically excavated sites in Tanagan, Calatagan to elucidate interpretations of pre-historic habitation or burial sites.

The archaeological excavation involving the UP ASP students and the National Museum Team for a period of close to three weeks bared archaeological finds that we hope, and as Dr. Eusebio Z. Dizon (1994:216) envisions are "substantial archaeological data with statistical significance that will substantiate realistic interpretations", this time of Calatagan pre-history.

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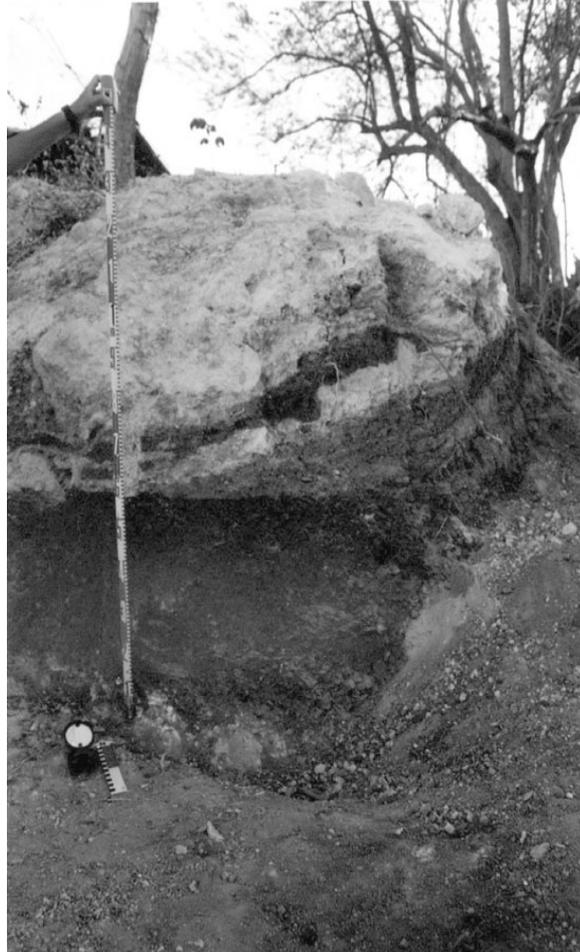
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**Plate 1 (a and b)** The North-South bulldozed area at the foot of the Kay Daing Hill Site.



**Plate 2.** Wall on the cut portion at the South-West edge of the Kay Daing Hill Site revealing deposition of earthenware sherds.

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Cover picture: South view of the Kay Daing Hill Site  
(courtesy of Arnulfo Dado)

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