Proposal for a Surface Archaeology Methodology in Bluff lands Archaeology (the Cordillera region of Luzon)

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"Phuu-khao thi Baguio nii yai too mii yod laem mak!" (The mountains in Baguio are very big and sharp!), sighs Surapon Athapanyawanit (67yo, Thai national) remembering the final approach of his plane which was about to land at the Loakan airport of Baguio City in the early 1980s.[2]

Introduction

Indeed, on a latent level, the statement above shows the apprehension or trepidation that naturally sets in as one (for the very first time) gets into close contact with the overwhelming elevations of the Cordillera mountain range be it by land travel or as in Athapanyawanit's case-- air travel. Such mountains like the Mangitkiran mountain range referred to by Athapanyawanit command both awe and respect. On a practical level, in archaeological methodology, such domineering landforms also deserve "out of the box" consideration in terms of archaeological approaches. In terrestrial Philippine archaeology, the typical fieldwork site is situated in the lowland plains or in rockshelters and cave sites where stratigraphic deposition can be said to have been in proper chronological succession or order.

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This paper highlights a very important consideration that must be discussed in conducting archaeology in mountain areas like the Cordillera Autonomous Region, of Luzon in the Philippines where slopes are classified as having a "high" angle (having high ratios of rise distance over run distance) at elevations anywhere between 900 to 1,500m (on average). One must be wary of taphonomic processes such as active erosion; or at worst, reverse stratigraphy-deposition, which can present problems to archaeologists employing standard excavation methods like the spit and natural excavation method. This paper will show where and how such problems where encountered. These are based on the results of the Tuba, Kabayan, Kapangan Archaeological Survey of 2008, Sablan and Tuba Archaeological Surveys of 2009 and 2012 and the Ilocos Sur Archaeology Project Season Two of 2012 (ISAP 2), which covered the highland Municipality of Quirino in Ilocos Sur (Figure 1).

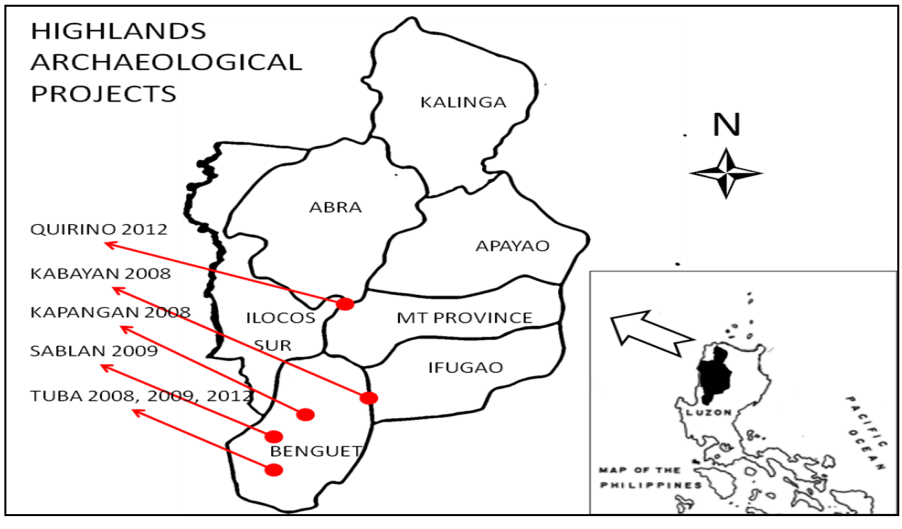

Figure 1: Map showing Cordillera Administrative Region and the highland locations in Ilocos Sur and Benguet where fieldwork was conducted by author (not to scale)

Towards an Archaeological Methodology in the Highland Cordilleras

It can be said that the Cordillera landscape is more conducive to the "surface survey" methodology in archaeology primarily because of its erosional hinterland locations. This method will be explained below. Another equally important justification is the fairly recent field-ploughing or levelling and bunding activities which may have churned up archaeological finds from their cultural layer among the agricultural districts of the Cordillera (for instance in Benguet and Mt Province, mountain terrace agriculture probably began in the early 19th c).

Based on previous fieldworks conducted by the author in the Benguet highlands (Kapangan, Kabayan, Tuba, Sablan) from 2008-2012, there is either a thin (20cm if at all) or an absence, of a cultural layer that may contain artefacts (see topsoil interspersed with Layer A in Figures 2 and 3). This is brought about by the erosional process that is at work especially during the semi-annual rainy season from May to November. Therefore, one would expect artefacts to be in motion on the surface rather than within the stratigraphic layers.

Figure 2: Example of a road cut at Mount Salat, Sitio Sagapa, Brgy. Palaypay, Kapangan, Benguet. Notice thin topsoil interspersed with 20-30cm Layer A zone, 20-50cm Layer B regolith. 600cm± Layer C is mother rock (Photo taken in 2008)

Figure 3: Example of a road cut at Mount Kabuyao, Sitio Poyopoy, Brgy. Taloy Sur, Tuba, Benguet. Notice thin topsoil interspersed with 20-30cm Layer A, 20-50cm Layer B is regolith. 300-500cm Layer C is mother rock (Photo taken by author April 2012)

On another occasion during fieldwork lead by the author in the tri -boundary of the provinces of Ilocos Sur (highland), Abra, and Mountain Province, the team opened a test pit at a mountain slope. The 1m x 1m test pit was opened at Minlaoi open site in Barangay Patiacan, Quirino, Ilocos Sur (Figure 4). Top soil to Layer A was observed between 10 to 20 cm below surface. Layer B is regolith or weathering mother rock. Layer C is intuitively the mother rock. This particular site was heavily laden with surface finds comprising of ceramics, and metal implements (Canilao 2012).

Figure 4: Team members of ISAP 2 excavating a 1x1 Test Pit at a Mountain in Brgy. Patiacan, Quirino, Ilocos Sur. Hundreds of artefacts were found on the surface of the Minlaoi Open Site (National Museum Code I-2012-M).

As shown above, one is likely to encounter artefacts that are in erosional context rather than depositional context in highland locales. There is better chance to encounter artefacts that are "creeping" on the surface rather than those that are deposited in proper succession. Indeed, excavation in the Cordillera highlands using techniques that have been tried and tested in otherwise depositional environments such as lowland open site may prove to be problematic. As an alternative to archaeological excavation methodology, this author suggests that a better methodology to pursue would be that of surface survey archaeology.

Surface archaeology

Surface archaeology methodology is a sound methodology for specific landscapes according to Sullivan (1998) and Bintliff (2000). Sullivan talks about the role of surface remains in settlement archaeology:

> *Surface remains are an indispensable component of modern settlement archaeology, often forming the basis for crucial decisions regarding site function, significance, and subsurface integrity (Sullivan, 1998).*

According to Sullivan, surface artefacts have been historically undervalued when in fact they can be primary sources of data for archaeological research. Various contributors in *Surface Archaeology* (Sullivan 1998), believe that surface artefacts are more than just "beacons":

> *Surface archaeological phenomena have intrinsic interpretive potential that largely has gone unexplored. [T]he value of surface archaeological phenomena neither depends upon nor derives from characteristics of subsurface archaeological phenomena. In fact, mystifying subsurface archaeological patterns can be clarified only after an exhaustive study of the surface material (Sullivan 1998: xi).*

However, this interpretative value is largely dependent on the degree to which origins can be ascertained reliably taking into account the taphonomic processes in the site. Can we reconstruct the primary (original) context based on an understanding of the secondary context and the processes that lead to this? This is a particular case where reconstruction will play an enormous role in the interpretation.

William Dancey (1998) assesses the value of surface archaeology for hinterland locations. Settlements located on bluff lands or hinterland locations "seldom experience post-occupational deposition and contain few deposits, they are in erosional and not in depositional environments" (Dancey 1998:8). A great deal of archaeological finds from the surface are adequate and reliable as clues to early settlements.

Towards a Methodology in Systematic Archaeological Surface Survey

The most practical archaeological method proposed in this paper in conducting archaeology in the Cordilleras of Luzon (as well as other similar landscapes) is surface survey. Certain points justify the use of surface survey: 1) erosional hinterland location, 2) recent cultural practices such as house-building, road-building, field-ploughing which may have churned up archaeological finds from the cultural layer, and 3) it is the most practical method taking into account the logistical challenges in the

area. At the onset of the project the archaeologist should also strive to investigate if the area where he plans to conduct the systematic survey has an erosional or a depositional context. A quick solution to this is a consultation of the Landslide and Flood Susceptibility Maps of the Philippines (Cordillera) published by the Mines and Geosciences Bureau (Figure 5). This map identifies areas that are landslide prone (erosional) and flood prone (depositional).

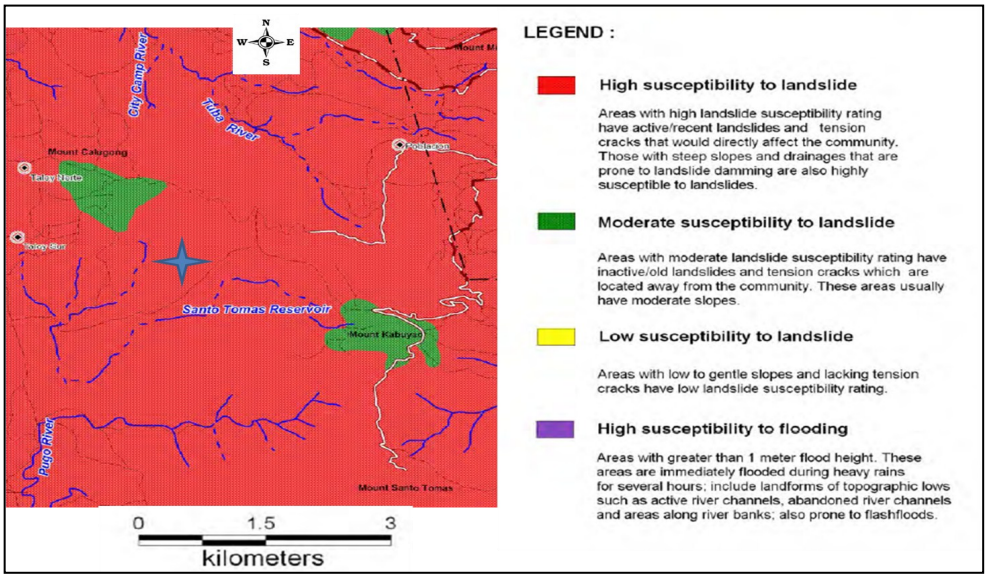

Figure 5: Landslide map of Tuba area. Star indicates location where road cut in Figure 3 is located. This area is highly susceptible to landslide (erosional context) (after Mines and Geosciences Bureau 2009).

The site is the basic operating unit of a field survey. A site is simply "a place that represents a particular focus of past human activities" (Pearson and Sullivan 1999:5). Archaeological sites are localities "that still contain physical evidence of past human activity from actual objects or traces of objects to the physical by-products of a past activity" (Burke and Smith 2004: 63). Orser and Fagan describe the sort of artefacts to be encountered in an archaeological site:

> *…traces of human activities come in many forms- surface scatters of potsherds, telltale gray midden soil spilling from a gopher hole, piles of bricks or stones, relict walls and fences, cellar depressions, and capped wells. In modern Michigan and Wisconsin, for example, one or two small mounds of earth, a small depression here and there, and a scatter of broken whiskey bottles, and bent, corroded enameled tin plates and cups is all that may indicate the location of a once-active logging camp. In the American west, the same evidence may reveal an abandoned nineteenth- century mining community (Orser and Fagan 1995:129).*

Surface finds comprising of ceramic sherds maybe remnants of cooking activities and even ritual offering. Physical evidences like middens, postholes of houses and other habitation features are expected to be encountered in Cordillera archaeological sites. According to Scott, early Cordillera houses are "devoid of any furnishings, save an incongruous inventory of local pots, baskets, and wooden plates together with imported Chinese porcelain" (Scott 1974:175-176).

Standard equipment in an archaeological survey include a handheld Global Positioning System unit equipped with altimeter and compass, Munsell soil colour chart, two 50-metre tapes, three capenter's rulers, a representative archaeology/artefact kit, a Nikon SLR camera, a Field Notebook, NAMRIA 1:50000 topographical MAPS, soil and geological maps of Cordillera, a roll of nylon string, and a plumb bob.

Pedestrian survey or transect-walking is done in a systematic surface survey. Transects lines or corridors within the area to be surveyed. In mountains and bluff lands, the transects correspond to sinuous lines that follow the contours of the area. The baseline and offset technique is used to record features in a site. This is the simplest approach and requires only basic equipment. The first step is to layout a 50-metre tape across the archaeological site. A compass reading is then taken indicating the orientation of this line. GPS reading is also taken at the starting point of the line. Artefacts or features are taken offset measurements at right angles with the baseline.

Conclusion

Outlined above is a methodology that can be deployed when doing archaeological research in bluff land areas like the Cordillera region of Luzon. Based on a series of projects in the region, systematic surface survey appears to be more productive. It should be stated; however, that this methodology is relevant only to erosional contexts and not in depositional contexts. In the case of the latter, trench excavation is still the best method. It should be emphasised that an understanding of the site formation processes within a site will be the true gauge of what methodology to eventually pursue.

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