

ARCHAEOLOGICAL HISTORY OF CAGAYAN PROVINCE

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ABSTRACT

The scope of this paper includes an outline of the history of archaeology in Cagayan Province based on the reports and articles filed at the Records Section of the Philippine National Museum and some articles collated by the writer. This paper is limited to the archaeological history of Cagayan Province alone and not the whole Cagayan Valley Region (comprising Cagayan, Isabela, Quirino, and Nueva Vizcaya), although some works in these areas are mentioned.

Covered in this article are the different archaeological activities done in the area and other related studies (such as geology, paleontology, zoology, etc.); the initial findings made from these studies; the people involved in these projects; and the laws that came out for the protection and regulation of these sites.

This paper hopes to update researchers on the archaeological and related studies done in the Province. Also mentioned are the details of the initial discoveries made by farmers and other non-anthropologists before the second World War; the early studies and explorations done by American anthropologists in the area; to the involvement of the National Museum in search of the 'Early Man' in the 1970s; the participation of foreign archaeologists, geomorphologists and other experts in different fields; and the present archaeological activities.

The research showed that archaeological activities were concentrated mainly in three areas: Solana, where fossil mammals were found; Peñablanca, where more than a hundred archaeological sites were determined from the more than two hundred fifty cave formations in the area; and Lallo, where large shell middens are located.

INTRODUCTION

The Cagayan Valley archaeological area, located in the northeastern part of mainland Luzon, has been dated 100,000 to 400,000 B.P. (before present) (Fox and Peralta 1972: 6). In the investigation of the Awidon Mesa Formation, the recovery of elephant bone fossils and flake tools in the area affirms the belief of the researchers that "man and Pleistocene mammals existed in the Philippines particularly in the plains of Cagayan Valley as early as mid-Pleistocene time during the Ice Age when land bridges, now submerged, connected Luzon with mainland Asia allowing their intermigration." (Bondoc 1979: 23).

According to Ronquillo (1987: 161), the works of Fox from the 1950s to the 1970s resulted in the inclusion of the term 'Cagayan Valley' among other significant sites in the archaeological literature. But how did archaeology start in the Cagayan Valley? What were the major archaeological studies done in the area? Who were the people involved in these studies?

This article aims to survey the archaeological and archaeology-related activities, especially the major findings, done in Cagayan Valley, particularly Cagayan Province. This paper also hopes to attract other experts to conduct further

research in Cagayan by showing how significant the province is as an archaeological area.

To come out with a more comprehensive outline, Cagayan Province is further subdivided into three parts: the north, composed of Lallo, Gattaran, Claveria, Abulug, Lasam, Aparri, Sta. Ana, Palau, Camalaniugan; south-east composed of Peñablanca and Tuguegarao; and the south-west comprising Solana, Liwan, Tabuk, Enrile and Tuao. The division of the southern part of Cagayan into east and west was determined by the Cagayan River running across it.

The archaeological activities mentioned herein are based solely on previous reports filed at the Records Section of the Philippine National Museum's Archaeology Division and some articles collated by the writer. This paper is descriptive in nature and does not attempt to make judgments whatsoever on the various archaeological works undertaken.

THE BEGINNING

The discovery of archaeological sites in the Cagayan Valley was not done by archaeologists, but by farmers and locals who accidentally found fossil remains and artifacts in their backyard and farms; and geologists who were studying the formations in the area. Two prospectors -- Alfonso Bagunu and Rodolfo Albano of Cabagan, Isabela, made the first discovery in 1936. They found rhinoceros teeth and bones in the mountains near Laya, almost on the boundary line of Cagayan-Isabela. They brought home some samples that were later brought to Manila by a certain Jose Datu (Beyer 1947: 214). Prof. G.H.R. von Koenigswald identified the teeth, which are now in Beyer's collections, as *Rhinoceros philippinensis* (Fox 1971: 9).

It was actually in 1928 that five whole "Claveria-type" pseudotektites were found on a beach near Claveria, Cagayan, and were forwarded to the Bureau of Science for identification. Before the war, a Provincial Engineer reported several large prehistoric shell-heaps cut through in road building near the Cagayan-Isabela boundary-line. In 1942, a Japanese officer in northern Isabela found three good Late Neolithic implements (two adzes and one chisel) and showed these to Prof. Beyer in 1943. Prof. Beyer identified two of the specimens as fully stepped and one as plain-backed. Mr. Aikawa of the educational department of the Military Administration later took these in August 1944. Then in October 1945, Lieut. William G. Beyer found a few true transported tektites in a field with reddish soil containing manganese nodules, about 2 kilometers southeast of the Ilagan provincial hospital, Isabela province (Beyer 1947: 214-215).

Also in the early '50s, two American oil geologists reported the presence of a fossil fauna in the same area mentioned in the initial report to Prof. H. Otley Beyer and to the National Museum (Fox 1971: 9-11). In December 1953, Prof. G.H.R. von Koenigswald (1958: 69-70) came to the Philippines for the Pacific Science Congress in Manila. He was first shown some fossils of the *Stegodon*, *Bos*, *Sus*, *Cervus* and tektites called the "Anda-type" from Beyer's collections found in the Island of Anda, Pangasinan. According to him, "this was the second time that tektites had been found in association with fossil mammals; the first time in the upper Trinil layer at Sangiran,

Central Java.” At this time, Prof. Beyer already possessed teeth of a fossil Rhinoceros in Cagayan.

After the Congress, Mr. Lawrence Wilson of Baguio, who introduced the site in Pangasinan to Prof. Koenigswald, went to Cagayan to investigate the site and found additional fossils and tektites. Then after the last Pacific Science Congress held in Bangkok in November 1957, Prof. Koenigswald, with the guidance of Mr. Wilson, visited the Espinosa Cattle Ranch in the Cagayan-Kalinga Apayao border twice. During the first trip, he was accompanied by Mr. Shantz, a young student of archaeology. They found stone implements made from quartzite and hard sandstone including a pointed pebble-tool. According to him, “The specimens are very different from anything found in Indonesia, including the bifacial hand-axes from Patjitan, as well from the so-called “Sumatra-type” found in the kitchen-middens” (Koenigswald 1958).

During Prof. Koenigswald’s second trip in January 1958, he was with Mr. D.G. Kelley of the California Academy of Sciences. They found a single pebble-tool at the northern extremity of the Cabalwan anticline and other specimens collected by their Kalinga guide from the intervening region, for which they proposed the term “Cabalwanian.” The geological evidence made them conclude that it was of Pleistocene antiquity. No fossils were found associated with the pebble-culture. All materials were then left to the University of the Philippines (Koenigswald 1958), but the writer is not certain where in the University these are presently located.

After von Koenigswald’s visit, Mr. Lawrence Wilson continued to explore and collect fossils in the Liwan-Solana area. All the early works in the area were funded by the National Research Council of the Philippines through a grant-in-aid to Prof. Beyer. Beyer also purchased fossils and tektites from local Cagayan residents mainly from Mr. Luis Badangon, the chief guide to the Museum’s field team (Fox 1971a).

The National Museum’s involvement in the Cagayan Valley archaeology started in the early 1970s with the search for the “Early Man Project.” The National Museum re-explored the reported sites and made other explorations and excavations in the area. Projects are ongoing until this time. Details of the archaeological activities are stated on the next pages.

SOUTH-WEST CAGAYAN

Area Coverage: Solana, Liwan, Tabuk, Enrile, Tuao, Rizal & Cagayan-Kalinga Apayao boundary

The 1970s proved to be very busy for the National Museum. A number of archaeological explorations and excavations were done simultaneously all over the country. Mr. Inocente Paniza, the Chief Geologist of the Geology Division, was sent to the Liwan-Solana area in 1967 and 1969 to re-examine the sites reported earlier. He recovered some flake tools and fossil fragments. His site report became the basis for drafting a long-range project – the Archaeology of Cagayan Valley – which was later funded by the Asia Foundation (Evangelista 1971, Fox 1971b).

On December 1970, the first test excavation was opened by Jesus T. Peralta, Robert Fox and company at the Madrigal Ranch, Locality 12. Various stone tools and some fossil fragments were collected from the surface. The excavation appeared to establish the association of a flake tool tradition with Pleistocene fauna. The second excavation was made at the Espinosa Ranch, Locality 1. This was identified to have primary deposit of fossil bones and stone tools. Dr. Pow-Key Sohn of Korea suggested that the area was a “kill site.” This was because of a bone tool found and the deposition of the fossils was characteristically man-made (Evangelista 1971). Both ranches are located at the Liwan Plain covering the towns of Rizal, Solana and Kalinga Apayao (Dalupan 1974).

Fox and Peralta (1972: 4-6) believed that the human artifacts found in the Cabalwan Anticline were associated with the extinct Pleistocene fauna. They coined the term “Cabalwan Industry” for the larger assemblage of artifacts recovered by the National Museum at the sites, and not simply pebble tools as mentioned and illustrated by von Koenigswald. They speculated that “the presence of the pebble-cobble tools, associations in Cagayan Valley of man-made pebble-cobble tools and flake tools with extinct fauna believed to be Middle Pleistocene in date. The earliest occupation of Tabon Cave was around 50,000 years ago whereas, the sites in Cagayan were believed to be from about 100,000 to 400,000 years ago.”

Two geologists from Australia – P.J.P. Coutts and L. Cochrane (n.d.), later refuted the earlier claim in their article “Review of the Archaeological Evidence from the Cagayan Valley, Northern Luzon.” They summarized the contentions of Fox *et. al.* in 1972, to wit (quote):

- 1.) That man, presumably *Homo erectus* and a megafauna co-existed at least as early as the Middle Pleistocene; 2.) A number of archaeological sites located along the Cabalwan Anticline are ‘kill sites’; 3.) A new classification of pebble tools found in this area, derived from the study of the surface collections, is superior and more utilitarian than the older schemes for similar suites of tools; 4.) That the pebble and cobble tools are linked with flake industries, contrary to impressions given in earlier publications.

According to Coutts and Cochrane, they would prefer to regard the materials found and analyzed as “consisting of paleolithic assemblages of unknown age and of a general Hoabinhian character occurring in northern Luzon,” the term Hoabinhian not referring to any particular ethnic or cultural meaning (Coutts and Cochrane n.d.: 22). Moreover, there is a possibility that the stone tools found at the Espinosa and Madrigal Sites may be linked with the Awidon Mesa Formation and the river gravels, and that they are almost certainly associated with the later periods following the period of uplift and erosion of the river gravels. There is still doubt between the link of the Pleistocene fossil fauna and the formation of the Awidon Mesa Formation. The occupation of the Cagayan Valley by man may not be as old as claimed by the former should the dating of the geological sequence be linked with the formation of the river gravels. If so, then it would be that *Homo erectus* were not the ones responsible for the tools found (Coutts and Cochrane n.d.: 26-27).

On May 12, 1971, President Marcos and the First Lady visited the site which resulted in the acquisition of some \$200,000 worth of reparation goods for research and a new building for the National Museum (Evangelista 1971). This and the

continuous explorations of teams from the National Museum in the different areas of the province popularized the project of the government in the area that a lot of locals reported their own finds. For instance, farmers reported finds of 'giant bones' in Karilukod, Solana but when the National Museum staff came to investigate, they were not able to pinpoint the exact location anymore (Flores 1971).

Silvio Lopez (1972: 1-22) of the Geology Division of the National Museum, studied the geology and paleontology of Liwan Plain as a contribution to the Pleistocene geology of the Cagayan Valley. Field investigations were done in the area from August to September 1971 and April to May 1972. He studied the Quaternary deposits of Liwan Plain to determine the chronostratigraphic relationships of the deposits with a view of establishing evidence of value in the interpretation of Pleistocene conditions under which the mammalian fauna existed in the Philippines. He determined the physiography, geology (regional geologic history) and stratigraphy of the area, and determined the Ilagan Formation based on Kleinpell's study in 1954. He also mentioned the work of B.A. Gonzales in 1962 in his foraminiferal zonation of an oil well, who interpreted the presence of foraminifera in association with ostracods from the lower half of the Ilagan Formation as a shifting environmental conditions from marine to terrestrial. He further studied the paleontological evidence of the area using the vertebrate fossils, fossil elephants, and disposition of various specimens and came out with a preliminary proboscidean reference list.

In 1973, a field station was finally set up within the Espinosa Ranch and then at the Madrigal Ranch. This housed most of the equipment used in the field, the deposition of the artifacts and ecofacts found, and served as campsite for the National Museum staff. Then during the first half of 1974, the National Museum team headed by Mr. Alfredo Evangelista and Robert Fox undertook the Cagayan Archaeo-Geological Project. They were also with the head of the Geology Division. The Wanawan and Balelang sites were excavated and the team explored for more sites in the area. A total of six (6) localities were surveyed and the finds included skeletal remains and artifacts that date back to the Pleistocene period of geological time including fossil fragments of the *Elephas* (Evangelista 1974a, Santiago and Jago-on 1997). Mr. Inocentes Paniza mapped a portion of the fossil-bearing area while Mr. Silvio Lopez continued his base-line studies (Evangelista 1971)

From April to June of the same year, the second field team led by Mr. Wilfredo Ronquillo, Reynaldo Flores and Alfredo Evangelista, continued their excavation at Barrio Maguirig, Cabarruan a jar burial site believed to be of the Proto-historic period (1200 AD to 1600 AD); at Tag'gat 1, a paleolithic site located at the Espinosa Ranch; at the Madrigal Ranch, Localities 4 and 6 which probably belong to the Middle or Late-Middle Pleistocene; and a Neolithic site (1000 BC to 200 AD). The excavation yielded elephant fossil bones and teeth, flake tools and many others (Ronquillo and Flores 1974a, 1974b, Evangelista 1971: 4-5).

During the last part of May until the early part of June 1974, Linda Burton (1974), a Filipino volunteer-researcher of the Brigham Young University, investigated an archaeological site in Lanna, Solana. Her research yielded some lithic tools, jade ornaments, pottery sherds and many others. She tried to determine the type of site, the cultural sequence present, and the technology used in making the potteries. According to her, pottery in the site was poorly fired. This is one of the few habitation sites found

in the Cagayan Valley. Pottery and stone adzes were associated with the Neolithic period while a spindle whorl found *in situ* revealed an absolute dating of Late Neolithic (Evangelista 1971: 7-8).

Simultaneously, the Ateneo de Manila University in collaboration with the National Museum also conducted their first field school in archaeology at the Loyola Site at the Espinosa Ranch in Liwan. The students consisted of Lorenza Dalupan, Manuel Gonzales, Jr, and Sophia Lizares. They worked under the supervision of Alfredo Evangelista while Linda Burton was left to supervise the excavation at the Madrigal Ranch (Dalupan, *et. al.* 1974).

According to the report of Evangelista (1971: 5-6), Mr. Paniza also conducted a geological survey on the eastern slopes of a prominent knoll at Taggat area for studies in riverine deposits in July 1974. The survey showed that more studies should be done in the area because of the strengthening stipulations that earlier topographic features and geomorphic processes influenced the environmental conditions favorable to the development of life in the area in the past. In late December of the same year, Mr. Paniza and Mr. Yolando Señires surveyed paleontological and archaeological sites at the Liwan area.

From October to November 1975, the team of Flores and Ronquillo explored the western and eastern section of Cabalwan anticlines. Thirteen (13) localities were identified and fossilized animal bones were also recovered (Ronquillo 1976, Cuevas *et. al.* 1997).

In 1976, the Cagayan Valley Archaeological-Geological Project was carried out from March to April. The team was composed of Assistant Director Alfredo Evangelista, Dr. Richard Shutler, Jr. of the University of Iowa, and staff from the Anthropology and Geology Divisions. The surveyed sites were Cabalwan, Barong, Busur, Enrile and Faire anticlines at the Central Cagayan Valley. Recovered in the said sites were elephant bones, lithic tools, flake tools, waste flake tools, broken potteries and bones, earthenware jars, burial jars (found in Faire), fossilized elephant tusks (Cabalwan anticline), petrified wood, flake tools, and unifacial pebble-cobble tools (Ronquillo 1976; Cuevas *et. al.* 1997).

From September 2 to October 1, 1976, excavations were done on the grassy knoll of San Juan, Tuao where previous explorations yielded elephant bones (jaw and molar portions) and stone tools. The team was composed of Wilfredo Ronquillo (1976), Yolando Señires, Macario Santos and Robert de Ocampo.

Dr. Richard Shutler, Artemio Barbosa and company, also made three test pits at the Andarayan site in March 1978. They tried to see the possible route of the red slipped pottery and some decorated sherds which have an affinity with the Lapita pottery (Barbosa 1978). His team went back to the site in January 1979 together with his wife Jamie Evrard, son Richard Shutler, Jr., Michael Fokken and several personnel from the National Museum. The grant for their research was given by the Philippine Center for Advanced Studies, University of the Philippines in cooperation with the National Museum (Shutler 1979). Radiocarbon date for the ceramic bearing deposits at Andarayan was determined to be 3240 ± 160 BP (S.F.U. 86) (Snow and Shutler, Jr. 1985).

In the early part of 1979, Mark Mathisen, a geology student of Carl Vondra at Iowa State University, surveyed a possible Pleistocene site at Cabalwan, San Juan, Tuao. With him were A. Evangelista, J.T. Peralta, A. Barbosa, O. Abinon, N. Bondoc, M. Aguilera, and R. Evaristo (Barbosa 1979). The purpose of the study was to find out whether the bones incasted in the clay galls were really transported by streams before burial, and to date radiometrically the pumice conglomerate with the bones in order to gain a better understanding of the past life in the area. They were able to collect five cobble tools, chert flakes, and some fossilized bones.

Other than Mathisen, two other geologists from the same university also conducted a geological trip at Pangul and Cabalwan anticlines plus exposures of Tabuk Plain from March to April 1979. Carl Vondra and his graduate student Daniel Buggraf, Jr. (1979) identified the following as critical areas: Tuguegarao, Enrile, Pangul and Cabalwan Anticlines plus exposures of Tabuk Plain and Peñablanca. Plio-Pleistocene sediments were divided into two formations (Ilagan and Awidon Mesa) but additional sectioning at Enrile Anticline has pointed out the complexity between the two. The occurrence of lahar-type deposits in the upper portion of sediments was formerly believed to be part of the Ilagan Formation.

It was only in August 1982 that exploration in Solana resumed. That same year, Prof. Yogi Aoyagi of Sophia University in Japan visited Lanna, Solana with Mr. Lolito Soriano. They only collected surface materials (dela Torre 1993). Then in 1984, elephant sites were also found in the Cabalwan anticline, near the Tagat creek within the Madrigal ranch (de Ocampo 1984). During this time, attention was also given to other sites in the region such as Quirino and Isabela and other areas in the province.

Four sites were again explored during the fieldwork from October to November 1993 at the San Lorenzo II site. The team was headed by Amalia dela Torre with Melvin Garcia, Eustaquio Larios and Jimmy Fabela. The sites explored were Lanna, Andarayan, and Nangalisan, all in Solana; and in Carig, Tuguegarao. Artifacts recovered were chert flakes, petrified wood, polished stone adze, hammer stone, porcelain stone and earthenware sherds, blue and white porcelain and celadon sherds, shell fragments, animal dentition, clay discs, nail, and nail fragments (dela Torre 1993).

Some Japanese archaeologists and experts in cooperation with the National Museum, became more involved in the Cagayan Valley Archaeology starting in 1993. Kazuhiko Tanaka of the Junior College in Chiba, Keiai, Japan received a study grant from the Ministry of Education in Japan for his study on the prehistoric pottery of Southeast Asia including the Philippines at that time. The project in Solana was designed to fill the gap in the chronology of earthenware pottery in northern Luzon (Orogo and Tanaka 1994).

Together with Alfredo Orogo (1994), Mr. Tanaka re-explored Pamittan Site in Lanna, Solana in November to find an archaeological site suited for the chronological study of prehistoric pottery. Test excavations were also done in Attulu. Their archaeological excavation at the Pamittan Site in Lanna, Solana from January to February 1994 revealed two undisturbed cultural layers during the second millenium B.C. in Layers II and III. Charcoal date obtained was 3390 ± 100 B.P. (1440 BC) and another at 3810 ± 200 (1860 BC). Tanaka and Orogo's report on the accelerated C14

dating of the carbonized rice found in a pottery in Andarayan, Solana was 3400±125 B.P. (middle of the second millennium BC). Using this data, Peter Bellwood presented a hypothesis that the distribution of cereal (rice and others) and pottery in Island Southeast Asia after 3000 B.C. was related to the movement of the Austronesian people.

There are still ongoing projects in the Solana area since 1994 which commenced with the Japanese and now with Taiwanese archaeologists in cooperation with archaeologists of the National Museum.

SOUTH-EASTERN CAGAYAN (PEÑABLANCA AREA)

Peñablanca is located 9 kilometers east of Tuguegarao. Survey of the area was initially done by the National Museum in 1973 where Reynaldo Flores first explored the Callao Caves. Survey and exploration resumed on November 1976 where 35 caves and rockshelters were accessioned (Santiago 1976).

For nine weeks from September to November 1976, Barbara Thiel (1977; 1990a: 229-264) of the University of Iowa, excavated Arku Cave. The cave was used as a burial cave from approximately 2200 to 50 B.C. A total of 16,765 bones and fragments were excavated believed to come from 57 people. Six different types of burials were identified including jar burial, cremation and bones covered with red ochre. All burials were secondary in nature. Also found were fragments of shell bracelets, earrings, barkcloth beater, and spindle whorls. The total assemblage from the cave indicate an agricultural society with some social stratification which made use of a variety of ornamental and utilitarian objects in its daily and ceremonial life. Earliest date for Arku was 4350 B.C., based on the date of the skull in a pot burial.

It was in 1977 and 1978 that archaeological activities were full-blown in the area. Ronquillo and Santiago (1977a, b) were able to identify a total of 99 caves and rockshelters from November 21, 1976 to February 21, 1977. Out of the 99 caves, 52 contained archaeological materials and 8 were excavated. Noteworthy sites mentioned were Agguggadan Flake Tool Workshop, Quibal Flake Tool Workshop, Dalan Sarkot Chert Source and Chert Flake Tool Workshop, and the Pattao Area Paleolithic Open Site. Charcoal drawings, referred to as petroglyphs, were also found in 8 caves. Jesus Peralta (1977) and Melvin Garcia (1977) described the petroglyphs to be linear with triangular and anthropomorphic figures drawn on the limestone walls. The caves with a number of petroglyphs found were: Laurente (14), Gumahong (51), Pedro Calimag (6), EME-A (51), Segismundo Daquioag (50), Minori (62), Segundino Tuliao (42), and Hermoso Tuliao (18). A study was made by the writer in 1997 for her undergraduate thesis entitled "The Petrographs of the Peñablanca Caves, Peñablanca, Cagayan" (1998) for her degree in BA Philippine Arts at the University of the Philippines, Manila. Her study showed that twelve caves, and not eight, contained charcoal drawings. Other caves were San Carlos, Musang, Hunong Spring, and Dasilig Cave A. A detailed archaeological study on this subject should still be conducted, though, to determine the authenticity and age of the petroglyphs.

Ronquillo (1977) also made a preliminary excavation at Alejandro Malanos Cave in San Roque from June to August 1977. This yielded 367 archaeological materials ranging from stone tools, bone fragments, tooth, earthenware sherds, and

shells. He also excavated Rabel Cave in San Roque from March 1977 to June 1978 and studied the “Technological and Functional Analyses of Lithic Flake Tools from Rabel Cave, Cagayan Valley in the Northern Luzon, Philippines” (1981). This was his Master of Science thesis in Anthropology major in Archaeology at the University of Pennsylvania under the Ford Foundation scholarship grant program (Dizon 1988:3). Gathered were more than 3,000 archaeological materials composed of lithic flake tools, cores, waste flakes and chips, earthenware sherds, animal bones and teeth, and river shell fragments.

Florante Henson (1977: 1-27) also studied the “Flake Tool Industry at Laurente Cave” in the same year and had this for his MA degree in Anthropology at the University of the Philippines, Diliman in 1978. Excavation was conducted from April 20 to August 31, 1977 composed of the author, Eusebio Dizon (then a research assistant), Jaime Reyes and Ernesto Maloles (technicians), and Helen Hosilios (scientific illustrator). The cave is a part of the Peñablanca Limestone Formation in Barrio Nannarian and was determined to be a Post-Pleistocene site as evidenced by the presence of pottery even at the lowest natural levels. The pottery was dated at $7,830 \pm 170$ B.P. = 6,050 to 5,710 B.C., making it the oldest pottery dated in the Philippines. Artifactual and ecofactual remains indicated that hunters and gatherers once inhabited the cave.

The highlight in the Cagayan Valley Archaeology that year, though, was the issuance of Presidential Decree No. 1109 “Declaring the Archaeological Areas in Cagayan Valley and Kalinga Apayao Archaeological Reservation.” Signed on the 28th of March 1977 by the late President Ferdinand Marcos, the decree stipulates that important cultural items in the areas stated would be preserved and maintained as site museum in line with Presidential Decree No. 374. Furthermore, all excavations to be done in the area shall be under the control and supervision of the National Museum and anyone caught violating this law shall be subjected to penal provisions of the earlier decree. But in spite of its issuance, illegal excavations and guano collections continued unabated.

For six weeks from November 1976 to February 1977, Barbara Thiel (1990: 61-81), together with Artemio Barbosa, Alfredo Orogo, and Nestor Bondoc (1978), made a study on the Musang Cave at the western foothills of the Sierra Madre, just below the seven-chambered Callao Caves. The study revealed two different assemblages. The earlier one consists of flake tools, shell, and animal bone, and dates from approximately 10,000 - 4500 B.C. According to Thiel, this time hunters and gatherers used the cave as a frequentation site. The second assemblage dates from approximately 4500 B.C. to recently. This layer was where a needle and pottery were found, for which Thiel claimed was the earliest dated metal (brass needle dated 2680 B.C.) and pottery (dated 4000 B.C.) in the Philippines at that time. The cultural materials indicated a distinct habitation site, and showed that the cave was heavily utilized by two different groups of people having different cultures. Flake tools, animal and human bones, beads, and pottery were mostly found in the cave (Barbosa 1978b: 3-5).

Osteological and zoological survey-collection was also done in Barangay San Roque from April 19 to May 18, 1978. A total of 285 specimens were then collected (Conese 1978). In September of the same year, the National Museum staff visited the

Protohistoric site at Tumangil, Nannarian, Peñablanca, which was destroyed by the National Irrigation Administration in May. Tumangil site was one of the open sites surveyed by the National Museum in 1975 and was planned to be excavated since it was the only burial site noted at that time. Earthenware sherds and a skull with intact teeth were recovered (Barbosa 1978).

In the same year, two geologists from Australia – R.J. Wasson and R.M. Cochrane (1978, 1979) made a three-week study on the “Geological and Geomorphological Perspectives on Archaeological Sites in the Cagayan Valley.” The former was from the Department of Biogeography and Geomorphology of the Research School Pacific Studies at the Australian National University in Canberra, while the latter was from the Victorian Archaeological Society in Melbourne. Their study showed that the environment during the occupation of the caves and open sites was little different from that of today except that the forest was more widespread. The radiocarbon evidence suggested an Upper Pleistocene to Lower Holocene Basal Age for the tool assemblage in the Peñablanca caves, a much younger age than that suggested by Fox and Peralta in the early 1970s. They also concluded that the Peñablanca sites were very much younger than the open sites, but it was also feasible that they were both occupied during the same period. In the absence of unmistakable stone tools in the within the sediments of the Ilagan Formation, there is no reason to date the tools on the basis of the estimated age of the elephant fossils. Thus, “the view that the ancient Cagayanos killed off the now extinct forms was not only speculative, it may well be totally unnecessary.”

From September 1978 to March 1979, the National Museum conducted an excavation at Lattu-Lattuc Cave as part of the Early Man Project. The team was headed by Artemio Barbosa (1979), assisted by Alfredo Orogo, Miguel Accion, Jr., and others. The cave was found to be a jar burial site and materials gathered were bone fragments, jars, pots, flake and stone tools, earthenware sherds, jade earring, shell fragments, and other artifactual and ecofactual remains. The analysis made was correlated with the stratigraphic and processual variables. Maria Lorenzana Dalupan of the Ateneo de Manila University later made a study on the “Prehistoric Occupation of Lattu-Lattuc Cave in Cagayan Valley Concentrating on the Evidence of Ceramics” for her MA in 1981. She suggested that variability in the distribution of the archaeological materials in the different chambers of the cave resulted from differential use of the natural divisions (Dalupan 1984: 142; Dizon 1998:4; Ronquillo 1983: 82).

In 1980, M. Cuevas reported the absence of archaeological materials and soil stratigraphy at the mouth of Callao Caves in their excavation from November 30 to December 3. Later excavation by Antonio Perez (1980), Cuevas, Bondoc, and other museum staff yielded human bones, animal tooth, fish bone, shells and peanut and seed covers. The bones gathered from the cave were studied and identified in 1981. Forty-seven (47) of the fifty-three (53) teeth specimens belong to human, another to a deer and two to a monkey (Bautista and de Vera 1981). Further analysis of the biological remains from the Callao Cave was done in 1985 revealing all materials belonging to the recent period. Human remains intended for burial belonged to two or more generations. The marine shells found had evidences of retouching, drilling and polishing although mechanical damage was not necessarily related to man. All other

materials pointed to the theory that the cave was at one time used for burial and probably as a habitation site (Bautista 1985).

Osteological and Molluscan Survey-Collection was also conducted from September 26 to November 6, 1981 at Barrio Quibal. A total of 202 specimens representing 48 species were collected. Various faunal species were identified but no analysis was done because of the insufficient skeleton collected (Bautista 1981).

Another remarkable landmark in Peñablanca's history that was of great help to archaeology was the establishment of the Cave Management and Conservation Program (CMCP), pursuant to the NIPAS Act of 1992 by the Department of Natural Resources (DENR). This is in line with the government's aim to conserve, manage, develop and properly use the country's environment and natural resources. Under this program, the "Callao Cave National Park," later renamed as the "Peñablanca Protected Landscape" was implemented on June 29, 1994. Part of the program components include Cultural and Archaeological Resources; Assessment of Geological, Paleontological, and Speleological Resources; Visitor Management; and many others that will surely help the Cultural Resource Management (CRM) of the area covered. Nevertheless, treasure hunting continues to prevail in the area and the authorities find great difficulty in implementing the said rule.

At present, the Peñablanca sites with the guidance of the National Museum staff serve as a venue for field school for the students of the Anthropology Department and the Archaeological Studies Program of the University of the Philippines, Diliman.

NORTHERN CAGAYAN

Area coverage: Lallo, Iguig, Gattaran, Abulug, Lasam, Claveria, Aparri, Palau Islands, Sta. Ana

Survey in the northern part of Cagayan Province started in 1971 as part of the general survey in the Cagayan Valley for the Early Man Project. In one of the surveys conducted by Mr. Reynaldo Flores (1971) in Lallo, a teacher from the Cagayan Valley Institute showed him a stone adze about one foot long that according to her, came from a cave in Claveria. Other incidents on the finds of 'big bones' were reported in the various areas north of Cagayan.

In preparation for the excavation in the area, Eric Casino and Reynaldo Flores conducted socio-ecological research from February 1-10, 1972. They investigated the shell midden in Barrio San Lorenzo following Mr. Israel Cabanilla's report a year earlier. A test pit was done at the Magapit area and then they visited Mr. Leonor San Pedro in Barrio Nangka who had been collecting assorted fossils since 1957 in a hill about 2 kilometers from his farm. A total of four crates of specimen were then shipped to Manila on February 4.

It was Israel Cabanilla (1972) who initially explored and excavated the shell midden sites in Lallo from April until May 1972, together with Mr. Yoji Aoyagi and Reynaldo Flores. Later, Silvio Lopez and Cabanilla focused on the Magapit area. The site which was believed to be Neolithic, yielded polished stone tools, shale bead, fossilized elephant bone tool, clay pendant, and pottery sherds. Artifacts and ecofacts were reported present in the five one-meter squares and three two-meter squares dug,

showing the richness of the site in archaeological materials. The project was supported by the Asia Foundation.

In 1978, Dr Richard Shutler (1979) together with his wife, Jamie Evrard, son Richard Shutler, Jr., Michael Fokken, and several National Museum personnel, conducted archaeological excavations from January to March. Test trenches were done at Fuga Island (one of the Babuyan Islands), Ugingan Pt., Palaui Island, and at San Vicente, Sta. Ana; it was in Fuga Moro Islands located in San Vicente Strait immediately south of Palaui Island, that they finally decided to excavate fully. His research permit was granted by the Philippines Center for Advanced Studies in cooperation with the National Museum.

This was followed by the study of Richard Shutler, Jr. and Bryan Snow (1985), whose article was entitled "The Archaeology of Fuga Moro Island: New Approaches for the Isolation and Explanation of Diagnostic Ceramic Assemblages in Northern Luzon, Philippines." This served as an initial attempt to develop a structural framework for the study of the northern Luzon prehistory. Their study concentrated on the study of earthenware sherds found in the area. Three basic problems were then presented, to wit:

- 1.) recognize first the earthenwares that were subsequent to the Andarayan and other early assemblages; 2.) locate and archaeologically sample a site that not only contained such ceramics but, ideally, contained other earthenware varieties as well so our impression of the potential ceramic variability within the region would be maximized; and 3.) develop an analytical approach that would allow the differentiation among largely undecorated earthenwares and associate these with ethnographically known peoples or areas, thereby initiating a direct historical approach to the prehistory of the region (Shutler and Snow 1985: 2).

Their study on the earthenware sherds in the area suggested ethnolinguistical or regional labels for the four wares through the strength of the ethnographic comparisons supported by petrographic analysis. The following groups identified were Tinggian, Ivatan, Itavi/Ibanag, Cagayan and Ilokano Redwares. The early earthenware assemblages date to 3000 B.P. They believed that the people exploiting the Fuga Moro area were predominantly those participating in the Ivatan Redware tradition as early as circa 800 A.D. and perhaps until Late Ming times (Shutler and Snow 1985).

Another site in northern Cagayan, the Cortez Site in Barrio Dugo, Camalaniugan, was excavated from August 23 to October 16, 1980. The excavation was also a part of the Early Man Project. The team was composed of Alfredo Orogo (1980), Jose Santiago, Antonio Torres, and Lolito Soriano. The shellmounds in the area extended about half a kilometer from north to south along the Cagayan Valley Road and limited to the Cortez property. A total of 3,242 archaeological specimens were collected composed of pottery sherds, a clay effigy head (closely similar with the Manunggul jar cover), blue and white glazed porcelain sherds, iron slags, beads, animal bones, and human skull fragments and bones. The site was thought to belong to the Late Metal Age to Early Age of Contact. Dr. Eusebio Dizon (1983) further analyzed the metals found.

In the middle of the 1980s, Japanese archaeologists became more involved in the shell midden sites in northern Cagayan. Hidefumi Ogawa, a student of Prof. Yoji Aoyagi and now an Assistant Professor at the Tokyo University Foreign Studies, and Melchor Aguilera (1985) of the National Museum started exploring the Dalaya Village, which yielded earthenware sherds, quartzite flake tool, and stone cobbles. From 1986 to 1987, more explorations were done in the different shell middens in the area. The sites explored were: Bangag, Bagumbayan, Catayauan, Sta. Maria, Cortez, Tocalana, all in Lallo; Centro Sur and Dumon Village in Gattaran; Cabagan Formation; Agguneta, Lasam; Dugo, Camalaniugan; and Dodan Village in Aparri. Various specimens were gathered similar to the earlier excavations (Ogawa and Aguilera 1986: 17-32; 1992: 41-110; Cuevas n.d.: 17-33).

During the last week of October 1987, Melchor Aguilera, Jr. surveyed the lower reaches of the Cagayan River which was not covered by the geological studies made by Vondra and Mathisen in 1978-79. He was able to suggest four (4) rock formations in the area including their dates: Magapit on Callao Limestone Formation – oldest rock formation; Cabagan Formation – Upper Miocene; Ilagan Formation – Pliocene to recent; and Recent Alluvium – Neolithic. He was also able to discover 22 shell midden sites ranging from Neolithic to Metal Age and to the Age of Contact.

Elenita de Vera (1989) studied the faunal remains in San Lorenzo, Lallo in 1989. The specimens were identified through the study of the remains from some distinguishing characteristics and comparing them with the National Museum Zooarchaeology Section's collections. Some of the specimens identified were cartilaginous fishes, reptiles (python), aves, and mammals (pig and deer).

On November 6-9, 1993, archaeological test excavations were done at Atulu, Iguig. This was headed by Amalia dela Torre (1993) with Melvyn Garcia, Eustaquio Larios, Jr. Jimmy Fabela and Kazuhiko Tanaka. Also mentioned was the manufacture of earthenware pottery in the area which followed the traditional method of manufacture, firing and marketing.

In 1995, Mr. Kazuhiko Tanaka, a student of Mr. Hidefumi Ogawa and now teaching at the Junior College of Chiba Keiai, worked together with National Museum staff and surveyed four sites in the middle reaches of the Cagayan River where several stone adzes and pottery were found (dela Torre and Tanaka 1995). From August 23 to September 21, the Fausto Sison Site in Catayauan, Lallo was also excavated (dela Torre 1995; Garong 1995).

Another archaeological excavation was done at Sta. Maria, Lallo from February 7 to March 3, 1996. The team was headed by Amalia dela Torre (1996) and Kazuhiko Tanaka assisted by Jose Santiago, Ame Garong, and other museum staff. On August of that year, Melchor Aguilera, Jr. (1996) conducted a geomorphological field study in the lower reaches of the Cagayan River. The areas covered were Lallo, Camalaniugan, Buguey, Aparri, and part of Lasam. The ocular survey was to identify the existing landforms present in the area. Three major geomorphic units were identified in the initial field study: denudational hill, fluvial, and marine.

From August to September 1996, various archaeological activities were conducted in Lallo. The archaeological team was composed of Japanese archaeologists, namely: Hidefumi Ogawa, Kazuhiko Tanaka, Prof. Yoji Aoyagi, Dr. Hiriko Koike, and Dr. Nabuo Ooi; National Museum staff, and assisted by a group of

students from the Archaeological Studies Program of the University of the Philippines, Diliman. Exploration was done at the eastern side of side of Cagayan river (Dalaya Creek, Paramin Site, and the eastern side of Mabangog) while excavations were done at the Conciso Site in Catayauan and at the Irigayen Property at Sta. Maria. A test trench excavation was also done at the Dumbrique Site, Catugan and at Bangag I Site. The materials found consisting of earthenware sherds, chert flake or flake tools, and bone fragments were believed to be associated with the shell midden. They recovered mostly animal remains and some botanical remains. The activity had an interdisciplinary approach involving several fields of sciences to solve the archaeological problem (i.e. paleoenvironmental reconstruction). So far at this time, 21 shell midden sites were explored and 4 sites excavated in the area (Bautista 1996; dela Torre 1997).

Continuation of the project was resumed in August 1997 where three more sites were excavated – Sitio Mabangog, San Mariano; Clemente Irigayen Site, Brgy. Sta. Maria; San Lorenzo III Site (Siribian Property) in Barangay San Lorenzo. The site in Sta. Maria revealed a burial site with skeletal remains of an old man associated with earthenware pottery. Black smudged pottery and glass beads were also found at the right wrist. The site in San Lorenzo on the other hand, revealed a primary burial with grave goods of associated clay potteries (dela Torre 1997).

In 1996, the National Museum together with the Academia Sinica of Taiwan, conducted archaeological explorations on the northern coast of Luzon. The project's aim was to determine the cultural similarities and differences between the prehistory of the northern coast of Luzon and the southern coast of Taiwan through the material remains that might have been left by prehistoric people. The first phase of the project began in 1996 with Mr. Rey Santiago as the museum representative and Dr. Tsang Cheng-hwa of the Institute of History and Philology as the representative of Taiwan. They were able to cover the banks of the Cagayan River to the mouth of Aparri and other coastal areas near the area (Santiago and Jago-on 1997).

Three Taiwanese – Messrs. Cheng-hwa, Hsiao Chun Hung, and Liu – carried out the second phase of the project from June 6-28, 1997 accompanied by Messrs. Rey Santiago and Sheldon Clyde Jago-on (1997) of the National Museum. The project covered the municipalities of Sta. Praxedes, Claveria, Sanchez Mira, Pamplona, and Abulug. Analysis and interpretation of the finds are still being conducted.

OTHER AREAS

Area coverage: Isabela, Quirino, and Nueva Vizcaya

The province of Quirino was also explored by the National Museum in the middle of 1983 – 1984, still as a part of the Early Man Project. Cave 1 in Aglipay was chosen for excavation. The cave was identified as a lithic workshop site as evidenced by the andesite and chert tools, flake tools, shell midden, and animal remains. The exploration, according to Cecilio Salcedo (1984), supported the objective of the project in defining the temporal and spatial distribution of lithic tools. Based on the zooarchaeological materials analyzed by Angel Bautista in 1985, it was concluded that the site was once part of the marine environment as shown by the presence of petrified marine mollusks. He theorized that the site was once a freshwater area and

then became a secondary type of forest. Food gathering and hunting activities were also done in the area.

Also mentioned in the field reports from the Archaeology Division's Record Section that A West J 36 site in Bagabag, Nueva Vizcaya was also explored. Soil and sherd samples were analyzed by Susan del Rosario. The date of the exploration was not mentioned.

Several other sites were reported by landowners to the National Museum. The surveyed sites and some of the finds include: San Vicente Hill, Ilagan, Isabela (stone adzes and nephrite beads); Quezon, Isabela (chert flake tools, chert cones); Diffun, Quirino (chopper, earthenware sherds); Nagbukil Hill, Diffun, Quirino (slipped stone adzes, earthenware sherds, jar embedded in limestone, animal bones); Bagabag, Nueva Vizcaya (fossilized bones, flakes, animal bones); Naguillan, Isabela (earthenware sherds, flake tools, stonewares); and Maddela, Quirino (Neolithic stone tools, human skulls and potteries) (Cuevas n.d.).

CONCLUSION AND RECOMMENDATIONS

Cagayan Province may be one of the few areas in the country that has been archaeologically explored and excavated, but one can deduce that a lot of studies involving different fields should still be conducted. Dating of the materials gathered in the earlier archaeological excavations should also be resolved, particularly those found at the Espinosa and Madrigal Sites in Liwan. This is to shed light on the earlier claims by Fox *et.al.* (1971a) for the existence of *Homo sapiens* (or rather *Homo erectus*) in the Valley as related to the Pleistocene fauna of the area.

As mentioned by Coutts and Cochrane (n.d.), Cagayan has a very good potential for archaeological research. But Cagayan is quite a big area, that more explorations and excavations are still needed particularly in the Central Cagayan Valley. Explorations may as well be done in the other provinces, which, from the initial explorations, show a great potential too in the archaeological field. Nonetheless, the archaeological community should not fail to call on the involvement of other specialists in their studies to put them in a better position to interpret their data.

The Lallo shell midden, being one of the largest shell middens in Southeast Asia, should also be studied carefully. The initial involvement of foreign archaeologists and specialists is already remarkable, as we do not yet have enough well-trained Filipino specialists who can conduct studies on their own. The National Museum should continue working with foreign nationals who have the advantage of having substantial funds, modern equipment, and skills, so that in one way or the other, the Filipinos involved with them may also be enhanced. We should also continue conducting researches with our neighboring countries to point out our position in Southeast Asian prehistory and in the world.

It can also be observed that during the period in the 1970s, archaeological research was primarily oriented in the collection of archaeological material remains. Final reports, analysis of artifacts and publication on all that has been done should be

undertaken before more fieldwork. Much of the very considerable amount of fieldwork that has been done is virtually worthless without its publication and consolidation.

The archaeological history of the Cagayan Province would be better if only more funds are allocated on the archaeological activities, especially the analysis of materials and publications of major studies in the area. Efforts to seek more funds from other institutions and private corporations or individuals should then be prioritized. Other means of reducing expenses for this purpose should also be considered, such as coordination of use of facilities and experts, particularly in the laboratory analysis of archaeological materials gathered, with nearby schools and agencies; and the training of local residents in the basics of archaeometry and archaeology.

Most importantly, the richness in material culture and the considerable number of archaeological activities in the Cagayan Province may all be futile without the proper education of the Cagayanos. Especially when certain authorities themselves are involved in the destruction of archaeological sites by treasure hunting, resulting in the unmindful implementation of the laws concerning this matter. It is only when the local people fully digest the relevance of this great treasure as part of the Filipino cultural heritage can archaeology be successful in the Cagayan Province.

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