

RECENT EXCAVATIONS ALONG THE YOBE VALLEY

Musa O. Hambolu

Abstract

The Yobe valley is one of the many refugia that dotted the Chad basin after the commencement of the desiccation of the Sahara. It hypothetically must have been attractive to the population that had to move away from the aridized zone in search of favourable ecotones. As the Mega Chad receded from its Bama ridge shores, new lands were progressively made available for human occupation along the valley. It is one of the principal goals of the Yobe Valley Archaeological project to investigate how and when this new valley was occupied.

With the collapse of the first nerve centre of the Kanem empire north east of the lake, the Yobe valley was to play host to the displaced Sayfawa leading to complex changes in the occupation pattern of the valley. The documentation of the material evidence of these changes and the explication of the dynamics of these represents the second goal of the research.

Finally, employing an array of models for studying and explaining man-environmental relationship, data from reconnaissance surveys, ethno-historical sources, Chad Basin environmental researches and archaeological excavations are examined with a view to assessing the role of the environment in influencing the course of history here.

In pursuit of these goals three archaeological sites have been test excavated in 1993, 1994, and 1995; namely Garin-gada, Damakarwa and Gambaru respectively. My choice of the first two was informed by the proposition that earliest archaeological sites of the Chad Basin are most likely to be found at the shores of the Mega Chad which was marked by the 320 metres above sea level Bama Ridge. Garin-gada is situated at the point where the Yobe river crosses the ridge, while Damakarwa is also at the point where the Komadugu Gana, a tributary of the Yobe crosses the ridge. It was therefore expected, that if indeed the proposition holds true, we should be able to find evidence of earliest settlements at these sites. The choice of Gambaru stems from the fact that it was one of the residences of the rulers of the Kanem-Borno empire and should be able to furnish us data on the splendour of the valley and document the development of complexity. It is the nexus of an investigation of relationships among the settlements of the valley during the flourishing of the empire.

Preliminary analysis of the Garin-gada materials suggest that they are not very old, though a thin cultural layer exposed at about seven metres below present surface of the ridge where it is dissected by the river remains highly tantalising. Damakarwa is also recent, judging by the prevalence of Sgraffito decoration on the potsherds. The Gambaru site meets with expectation as the 2x2 metre test excavation yielded abundant and variegated artefacts and ecofacts useful for the reconstruction of man-environment relationship, documentation of resource bases, and settlement history of the Yobe valley.

Introduction

This paper has been divided into three principal sections. The first section deals with the search for the earliest settlements of the Yobe valley. The excavations conducted at Garin-gada and Damakarwa were aimed at tackling this problem. The second section deals with the development of complexity. The excavation at Gambaru was directed towards this problem. The third section seeks to discuss on the bases of the excavations at the three sites, man-environment relationship. The concluding part of the paper focuses attention on the problems and prospects of the Yobe Valley Archaeological Project.

The earliest settlements: There is a paucity of pre-three thousand years BP archaeological sites in the Chad Basin and this poses a serious challenge to the Chad Basin archaeologists. Views on the reasons for this paucity vary from taphonomic to those who fear that this area was not occupied before then, to those who believe that the paucity is a product of inadequate research.

SOPER (1965:184) believes that we do not have the evidence of the stone age in the Chad Basin because in such a stoneless area, stone tools would have been carefully preserved (or reused continually) instead of being abandoned on the spot after limited use. Thus, the chances of finding traces of stone artefacts are very remote. This argument is basically correct, but does not explain why we do not find other artefacts that are less scarce, for example pottery and bones, etc. SMITH (1971) sees the problem in another perspective. He contends that as most of the Chad Basin was covered by the immense water of the Palaeolake, it stands to reason not to expect settlements on water surfaces, except in few probable islands and the lake margins. This effectively rules out the possibilities of finding pre three thousand years BP sites in most of the area between the Bama Ridge and the present shores of the lake. It could however be asked: what about evidence of settlements during the dry phases before the wet phase that produced the Mega lake? These materials would have been transported by the resurgent lake waters, and in any case human activities during the hyper arid phase would have been confined to either the very limited margins or as argued by SHAW (1985:60) they would have withdrawn to the highlands like the Mandara, Jos and Biu.

CONNAH (1981) proposes two possible reasons for the paucity. One, is the masking of earlier deposits of the Chad formation by the extensive surface

deposits of relatively recent date. Without many gorges to expose these now deeply embedded levels, it is no doubt clear why they are not visible. This is indeed a sound argument. Connah then puts up another legitimate proposition, which in any case applies generally to archaeology in Sub Saharan Africa and especially so for West Africa. He contends that the paucity of pre three thousand years sites might be due to the limited nature of field research (thus, the more we look the more we might find). The problem is further compounded by the preponderance of post three thousand years BP sites, for their attractiveness preoccupies researchers and thus precludes the search for the less conspicuous and obviously fewer earlier ones. In essence Connah blames this paucity on taphonomic, research extent and focus factors. He opines that there is no absolute reason why the pre 3000 YBP sites cannot be found within the Chad Basin. He defends this position by summarising the information we have on such sites outside the Basin and also lists about ten sites within the Basin that have high potential of yielding such sites (CONNAH 1981:78-83)

As several archaeological researches have been carried out since these hypotheses were put forward, we are now in a position to assess which of them have been validated.

In the Sahelo-Saharan regions several sites have yielded pre 3000 YBP dates. Rim 1, an aceramic microlithic flake tradition has been dated between 12000 and 5000 YBP, while Rim II and III, which are ceramic in addition to having ground stone axes were dated from 4000 YBP (ANDAH 1979) Several sites in other ecozones of West Africa and the Sahara predate 3000 YBP. The question now is do we have sites within the Chad Basin that can rival these?

Most of the Chad Basin sites fall within the last three thousand years. The earliest phases of B 38, Kursakata, Gajigana fall within circa 3000 YBP while Mege, Kariari and Daima fall within the three thousand years barrier (CONNAH 1981, BREUNIG 1993, GRONENBORN 1995 and WENDT 1995). However we are beginning to have pointers to earlier dates like Konduga 6340±250BP, (THIEMEYER 1993), Dufuna 7264±55BP; 7670±110BP (BREUNIG 1995). We however still have a shortfall in the number of pre 3000 YBP sites when compared with the situation elsewhere and the proliferation of post 3000 YBP sites.

Of the possibilities and hypotheses, it is the one that proposes the Bama Ridge Lakeside as possible areas of pre 3000 YBP settlements that concerns us here. In 1984, Connah did a follow-up study on this hypothesis by exploring southern Borno in an area where the Bama Ridge is closest to the Mandara mountains (two refugia). Though the survey produced very interesting results, but not the pre 3000 YBP site he did set out to locate. He summed up the season's work in a rather pithy sentence: "The overall lesson of this fieldwork, however, seems to be that the harder you look, the more you find- although you may not find what you are looking for." (CONNAH 1984:153)

Three groups of sites were documented in the Bama Ridge area of the Yobe valley, namely Garingada, Damakarwa and Mar. The last one is yet to be excavated.

Garingada: This site is situated at Lat 12° 59'.41N and Lon 11° 57'.22E. Though there is an extant settlement, it is no doubt an area of probable ancient settlements, attested by numerous pottery and other artefacts scattered at many locales around. The Garingada site belongs to an area where the river crosses the Bama Ridge, thereby falling hypothetically within the region prescribed for intensive search for the earliest settlements by Connah (CONNAH 1981:78-83). The high grounds of the ridge provide suitable places for human habitation and rainfed agriculture, while at the same time enables the exploitation of the resources of the river, especially fishing, dry season farming and grazing. The sites and the extant settlements are both located to the south of the river, while the site is west of the extant settlement.

Potsherds are concentrated on high grounds, but these are no artificial mounds really. They are more or less flat settlement sites located on natural dunes. The intervening lowlands between these high grounds are however barren of archaeological materials. The sherds randomly collected are fairly worn suggesting that they might be several centuries old. Though with varying decorative patterns, roulette however forms the dominant style alongside with slipping and incisions.

At the bank of the river, some 22.5 metres up the cliff, there is a thin 3-5 cms thick cultural layer sandwiched by ridge sand. This cultural layer features a dark humus soil and contains fragments of pottery. A vertical section of three metres was prepared to facilitate a closer look at this layer. A sample of the soil was taken and the very few potsherds recovered were subjected to preliminary analysis. This thin lens of cultural deposit is indeed intriguing. Thiemeyer, who actually brought this site to my attention, identified three stratigraphic layers for the cliff, namely, pre Bama Beach Ridge, Bama Beach Ridge and the Post Bama Beach sand dunes. It is worth noting that a similar cultural lens on the Bama ridge at Konduga some twenty-five kilometres south of Maiduguri has produced a date of 6340±250 BP for human occupation of the ridge as attested by the pottery fragments. It is therefore not too far-fetched to anticipate such an early date for Garingada occupation. The gap in metres between this cultural lens and the present surface artefacts is quite remarkable. It might suggest a probable long time interval between the two occupational layers or rather a product of the rapid aeolian deposition.

A 2x2 metre test excavation was carried out on one of the several mounds featuring potsherd scatters on the surface. This particular mound is sort of central to the rest and seems to be the least affected by the more recent aeolian activities. The excavation however revealed that the cultural deposit is indeed very shallow. In fact, after the first ten centimetres the quantity of potsherds reduced drastically. Digging was stopped at 40 cms.

A total of 679 potsherds were recovered from three spit levels of ten cms each. Of these, only 296 (43%) were decorated, roulette and sgraffito being the

commonest form of decoration. Two pieces of grinding stones and five pieces of slag were recovered along with fish and animal bones. The natural deposit was uniform, being composed of light yellowish brown aeolian sand.

The evidence from this excavation cannot be taken to be representative of the site complex, therefore further test excavations would be carried out at other spots and an attempt will be made to study more closely the thin cultural layer about five metres below the present surface. It poses a major challenge that would require quite substantial resources to accomplish. However, my assessment is that it would be well worth it, as it will confirm the hypothesis that several archaeological sites are buried by several metres of recent aeolian activities. If this thin cultural layer is indeed contemporaneous with the Konduga site, then it will support a second hypothesis that recognizes the Bama Ridge Lakeside as potentially rich in pre 3000 YBP sites.

Damakarwa

This site is located at Lat 12° 48'.61 and Lon 11° 58'.79 and it is about eleven Kilometres SSE of Geidam. The site is similar to Garin-gada described above as it is associated with Komadugu Gana at the point where it crosses the Bama Ridge. It is, thus, one of the hypothetical areas of earliest settlements of the Yobe valley. Several potsherds abound on the surface of the site and these could be seen on the main road especially at a slope downwards to a playa situated to the north of the site. The abandoned settlement site is on a wide expanse of raised land (dunes) lying to the east of Komadugu Gana. The site is located at about 750 metres away from the main channel of the river and it is 960 metres west of an extant settlement whose occupants claim their ancestors lived there. The playa which exists immediately northwest of the site may have been a former ox-bow of the main channel. During the peak of the rainy season, it forms an affluent of the river.

Using a *Balanites aegyptiaca* tree that stands approximately at the centre of the site as the datum point, three main units were test excavated, labelled squares 1&2, 3&4, and 5&6. The primary objectives of the test excavation were to ascertain the depth of cultural materials, assess their nature and content, and have materials with which to compare with those from other sites.

SQS 1&2: Located at 4 to 6 MN and 28-30 ME of the datum, they were located towards the eastern limit of potsherd scatters. Sherds were abundant on the surface. Digging was commenced at the two squares simultaneously, but square one was stopped after 10 cms as it was essentially the same as 2. We needed to economize effort as we intended to sample several sections of the sites. From 0-30 cm, there was a fairly uniform distribution of potsherds of various designs. Other finds included one piece of metal ring (broken) at 17 cm and some charcoal at 22 cm. There was a progressive decline in sherds from 30 cm and 40-50 cm was virtually sterile. The natural stratigraphy is that of unconsolidated fine sand, which is perhaps explained by the aeolian origin

of the deposit. In fact the artifacts do not remain on the sections of the excavation. It is safe, at least meanwhile to assume that we are dealing with a single phase occupation as there was no discernible cultural break.

SQS 3&4: These were located at 48-59 m north and 20-22 m west of the datum. This location is in the northern edge of the potsherd spread, and close to the edge of the dunes, but no significant height variation from the datum. Square 3 was basically similar to 2. The major differences were two semi-round hard soil portions that occur at about 18-40 cm below surface. The soil colour for these hard portions is lighter than the surrounding area. Charcoal specks are found at the level of these features. Cultural materials ceased at 45 cm downwards. Square 4 was not dug.

SQS 5&6: Located at 68-70 m west and 0-1 m north of the datum point. Here I opted to experiment with an area without obvious surface materials as it was overgrown with annual grasses. It turned out to be a surprise as it was the richest and had cultural materials to a depth of 100 cm. The surface does not differ significantly in height from the rest. The quantity of sherds was high, and few bones were recovered. Charcoal samples were also recovered. However, at about 102 cm from the southwest corner of the pit, pieces of bones that look like the fragments of a skull were recovered. This could not be conclusively ascertained as it was just small fragments and ascertaining this would have required opening up a major excavation unit to the southwest of square 5. This would have been beyond the limits of this preliminary exploration.

The work done so far at these sites do not give us clue as to the earliest settlements of the Yobe valley. Preliminary analysis of the Garin-gada materials shows that we are dealing with a fairly recent site. This is borne out by the prevalence of decorations that characterize the historic period in this area and the absence of those of the very early periods. The presence of slags confirms that we are dealing with the iron age period. However, the thin cultural layer buried at about five metres below the present surface of the ridge remains highly tantalizing. Damakarwa is also very recent judging by the prevalence of sgraffito decoration on many of the sherds even at the lowest level.

As these sites do not give us adequate information on possible earliest settlements of the Yobe valley so far, then what do we make of our quest for this. Does that mean the proposal to look at this area for such is wrong?

So far the earliest date obtained for the Yobe valley is around the 9th century AD at Yau (CONNAH 1981:205). There are however two reasons why we can legitimately expect earlier dates, for Connah did indicate that the charcoal dated at Yau did not come from the earliest cultural level as excavation had to be discontinued for technical reasons. Secondly, Yau is right on the shores of the present Chad, so if the theory of Chad regression is anything to go by, it means that Yau area was in any case only recently available for human occupation. The areas to look for the earliest settlements is still the Bama Ridge zone. The search will certainly continue. Immediately

northwest of my research area is inviting evidence of possible ancient settlements beside the Manga Oases. These sites are being brought into the open by aeolian activities. The cultural materials appear in association with Fulgurites which have been shown to be of the Neolithic period in Niger republic north of my research area. (SPONHOLZ 1993:77-104).

Gambaru

Gambaru is located at Lon 13° 06.31N and Lat 12° 14.2E . It is right on the bank of the river. Gambaru has several attractions for the Yobe Valley Research Project. Its proximity to the river should enable it to furnish us data on man's utilization of the resources of the river. Having what Connah has described as the Yobe type mounds, it is expected that it could furnish information on Pre-Kanuri peoples of the Yobe valley.

As one of the settlements of the Sayfawa, it is expected to furnish data for the discussion on the development of complexity. Luckily it has some sketchy written documents on it. As an added advantage there survives near it an extant settlement which is useful for ethno-archaeological investigations. This settlement has dual ethnicity (Mowar and Manga) which is useful for our ethnogenesis studies and finally I considered it easier to study comprehensively than Gazargamo in view of my very limited resources.

Four major tasks were carried out during the 1995 campaign. A 2x2 excavation was carried out on the mound north of the palace. A 4x4 metre excavation was also carried out on the S.E. quadrant of one of the round hut foundations within the palace. A survey of the remains of the palace was undertaken and finally some ethnological investigations were conducted among the Mowar and Manga inhabitants of the extant settlement.

Excavation of the mound

The mound north of the palace had attracted the attention of CONNAH and several other previous workers (CONNAH 1981:235). He classified it as a Yobe type mound, but on the surface it looks like a midden. A similar one exists south of the palace but we chose to investigate the one closest to the palace and by the river bank. It is about 98 m away from the north wall of the brick palace while the northwestern end is actually being chipped away by mud diggers. The mound is about five metres above the immediate surroundings.

The crest of the mound should have been the most obvious choice for excavation, but I had a constrain of limited resources, thus I decided to approach it from a medium point. The consolatory advantage of this approach is the fact that the crest still remains available for complete reinvestigation of the mound if resources become available. An acacia tree that grows at the northern side of the mound was used as datum point. The 2x2 excavation was sunk at 3-5 m south and 1-3 m east. Digging was at 10 cm spit level A 2 mm

gauge sieve was used in sorting the excavated materials. The quantity of materials recovered was indeed great and a decision was taken to scale down the excavation to a 2x1. This was pursued to the sterile layer which was encountered at 260 cm.

Discounting the communitated sherds that were a feature of the first three spit levels, a total of 7906 sherds were recovered. After a preliminary analysis, some observations can be made. Quite unlike Damakarwa and Garingada, a very high proportion of the sherds are decorated-76.1% for A1 and 74.6% for B1. Could this be interpreted to be the result of the fact that we are dealing with pottery of a royal settlement where efforts were made to please the aesthetic pleasures of the royals? The commonest decorations which appeared throughout the sequence are sgraffito with various motifs and strip roulette. Vessel forms recognized are bowls, bottles, pots and trays. They also all occur throughout the sequence. Other finds of clay manufacture are smoking pipes which were found at spits 23, 22, 18, 8 and 6 of A1 and Spit 2 of B1. A spindle whorl was found at spit 3 of A1 and 2 of B1. Yet to be clearly identified terracotta figurines were recovered at Spits 18 and 7 of B1. Surprisingly, fragments of burnt bricks were not recovered.

Floral and faunal remains were abundant. Charcoal, in well-preserved conditions were recovered from spits 3-24 of A1 and 4-23 of B1. The absence from the first three spits is explained by the problem of human and animal trampling of the site leading to the granulation of the charcoal. Only one seed was recovered from spit 3 and a wood at spit 9 of B1. Fish and animal bones were recovered from the bottom to the surface of A1 while B1 had them missing in the first two spit levels.

Other finds were slag pieces at spits 9 and 7 of A1 and spit 9 of B1. Metal pieces, presumably iron, were found at spits 5 and 16 of A1 and 23 of B1. The only lithic material was a piece of broken grinding stone which was found at spit 6 of A1. When these materials are subjected to more detailed analysis, they are expected to help in understanding man's utilization of the resources of the Yobe valley.

The stratigraphy is indeed complicated and several questions have yet to be answered before its formation can be properly understood. While six natural stratigraphic sequences can be deciphered, the cultural sequence requires a more detailed look to understand it. There was however no decipherable cultural break.

The first layer (0-48 cms thick) consist of light greyish brown fine sand, with a very high concentration of communitated sherds, lots of bones and few charcoal. Within this are lens of yellowish sand with less archaeological materials. The second layer (0-20 cms thick) consists of a light yellowish brown layer. The sherds are less communitated and other finds are abundant especially at its lower portion. The third layer (30-60 cms thick) consists of light greyish brown layer with very well preserved and big potsherds. The fourth layer (55-100 cms thick) consists of yellowish brown layer with only a fair amount of cultural

materials. The fifth layer (17-50 cms thick) consists of light grey sand with a higher quantity of cultural materials than the level above it. The sixth which is also the last layer is sterile. It is yellow in colour and is first encountered at 220 cms below datum, though some cultural lens do penetrate. This phenomenon is clearly shown on the south wall. This lens has a light grey hue to the predominantly yellow colour, a reflection of the possibility that it is a pit profile that originated from the layer above.

Plotting of the complex

It was necessary to carry out a detailed survey of the ruins of the palace. We sought to put in more details than appeared in Seidensticker's drawing. (SEIDENSTICKER 1983) The complex that has been described as oblong shaped (CONNAH 1981:235) has ten different sized compartments. It measures 24 metres long at the SW - SE axis, 12 metres at the SE - NE axis, about 27 metres at the NE - NW axis and narrows to 10.5 metres at the NW - SW axis, totalling 243 square metres.

The complex is said to open to the river channel (DENHAM 1826:213), thus conforming to the central Sudan pattern of palaces opening to the west. Unfortunately, this is yet to be confirmed as the ruins here have been badly affected by erosion down the slope, and perhaps being nearer the river it has suffered more plundering than other areas for use at Geidam and Machina (CONNAH 1981:232). Migeod also states that the complex had only one gate. This is questionable as on the northern side, there is a *zaure* type design that should be interpreted as that of a gate moreso as it faces the mound. Perhaps, excavations will have to be carried out to ascertain this alongside the problem of identifying internal gates, as this is very crucial to our understanding of the use of the compartments.

It is noteworthy that of the five possible hut foundations, four of them are within one compartment. I have not been able to identify the mosque several authors have alluded to (MIGEOD 1925, and LANGE 1987). Also, the paucity of artefacts on the surface within the enclosure is intriguing. Does this reflect a pattern of sweeping the palace clean of refuse? This needs further investigation. We are yet to commence the investigation of the bonding pattern for different sections of the wall. With this it should be possible to determine if they were all built at the same time with the same technique or whether we had systematic expansion and different craftsmanship.

Excavation of hut 3

One of the archaeological puzzles of the red brick buildings of the Yobe valley is the rarity of fully built roofable structures. So far, none has been found at Gazargamo, thus the few round and semi-round features deserved attention. In excavating a quadrant of one of such circles, we sought to confirm if indeed they are foundations of huts, study the bonding pattern, look for associated

cultural materials and ascertain their contemporaneity with the whole complex.

The pattern of the debris spread was plotted before dividing it into four sections. The total floor and surroundings could have been excavated but once again because of resource constraints, excavation was limited to the SE quadrant. The inner and outer diameters were 4.4 m and 5 m respectively. In effect the wall is 60 cm thick and utilized alternate rows of stretcher and headers pattern of arranging the bricks. The question of the mortar utilized is not clear yet, but it is certain that one form or the other was applied.

Excavation stopped at 60 cm and cultural materials (except four sherds) were virtually absent. Also, there was no striking difference between the soil inside and outside the hut. One would have expected more compaction of the soil inside, but this was not apparent. Perhaps when investigating the hut further, we shall have to look more carefully.

Ethnological inquiry

The interview I conducted with the inhabitants of the extant village was rather brief. I, in pattern with what I do in all sites, inquired about their perception of their physical environment and how they have been coping and benefiting from it (HAMBOLU 1993). As a dual ethnic settlement I seized the opportunity to enquire about how they perceive of their ethnicity or identity. The responses were quite interesting. While all identified themselves as 'Kanuri' they however, identified several materials, occupational and world view differences between the Mowar and Manga. This line of investigation will continue to be pursued with a view to drawing possible archaeological inferences from them.

Much more need be done at Gambaru for it to shed adequate light on the peopling of the valley and the development of complexity. A date is needed to ascertain the beginning of the occupation of Gambaru. In the oral traditions, controversy exists as to which predates the other, Gambaru or Gazargamo. (MIGEOD 1925); LANGE 1987:132-133). Beyond this however, is the question of the pre-Kanuri occupants of the valley. Is Gambaru older than the C15th or was it a virgin land which the Sayfawa moved to? I doubt this, but we have to excavate more mounds and obtain dates to establish the true position. A perhaps much more difficult task to tackle is what sort of settlement existed outside of the brick stronghold. Were there clusters of service or servile villages around the palace - or was the place self-contained? Why was there no defensive wall around such an important settlement? Or was it seldom used or not as important as the bricks make it look?

Man-environment relationship

As work progresses we shall continue to study man-environment relationship, especially from the point of view of its perception by present occupants. Meanwhile, from the archaeological perspective, the Gambaru excavation has been very fruitful in that large quantity of ecofacts were recovered, in the form of charcoal, wood, fish and animal bones. The bones have been examined by Wim Van Neer of Musée Royal de l'Afrique Central, Tervuren, Belgium (see appendix). Beyond preliminary sorting, nothing has been done to the other materials. They are however the key to our understanding of man's utilization of the resources of the Yobe valley. The debate on the role of the river in the peopling of the area will only continue on the theoretical plane until more and more ecofacts are recovered and analysed. The role of the desiccation of the Sahara in the peopling of this region, the route and pattern of migrations, the consequent adjustments engendered by these processes will continue to be studied.

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