# Climate Change and the Peopling of Central Sudan and The Nigerian Highlands: A Historical Archaeology Perspective

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#### Introduction

The Central Sudan witnessed drastic climatic changes during the Late Quaternary period which resulted in dramatic transformation of man's history in the area. Palaeoclimatic, archaeological, linguistic and historical studies suggest that following the desiccation of the Mega Chad between the end of the 2<sup>nd</sup> Millennium B.C. and the beginning of the 1<sup>st</sup> Millennium AD, there was a southward migration of Chadic speaking populations into the area occupied by the Niger-Congo groups in the Central Sudan. This in turn caused the migration of later groups further southwards up to the Central Nigerian Highlands and the subsequent composition of the various groups as seen in the area today.

The Central Sudan is bounded by a line running from the mountains of Tibesti in the north-east, southwards to Lake Fitri in Kanem, and continues slightly south-west to the northern foothills of the Central Nigerian highlands. The region from this point is bounded by a line running north and north-east across the valley of the Gulbin Kebbi to the southern end of the Azben Plateau and then returning to Tibesti via the great erg of the Tenere. This region has an area of about 640,000 Km<sup>2</sup> which is nowadays roughly equally divided between Nigeria, Chad and Niger (Smith 1987). This region in ancient times was divided into two roughly equal zones east and west of the line running in a south-westerly direction from Kawar on the northern edge of the region towards the north-eastern edge of the Jos Plateau. There is evidence to show that the zone east of this line was almost entirely occupied by a large lake, the Mega-Chad, until about 20,000 years ago. At a time in the past, the lake which was as large as the present Caspian Sea stretched as far south-west as modern Bama and Gashua in Nigeria, and in the north-east to the foothills of Tibesti. There is little doubt that the shore lands of at least the northern part of this lake provided a suitable habitat for the hunters and food gatherers of Old Stone Age times (Smith 1987).

The Nigerian Highlands as far as this study is concerned comprises the Jos Plateau, the Kauru hills to the north-west, and the Dass hills to the north-east also of the Jos Plateau. For the sake of convenience emphasis shall, however, be on the Dass area of Bauchi State and the Jos Plateau. The Jos Plateau itself is a clearly defined highland region that rises to an altitude of over 1,350 metres above the sea level (see Naraguta map sheets, 1:50,000). It comprises an area of approximately 6,400 square kilometres of high plain, interspersed with granite hills and is bounded by a broken scarp some 500 to

1000 meters in height, making it stand apart from the neighbouring lower plains of the region. In comparison, the Dass Highland is made up of mountain ranges that are much lower in height and size. However, on approaching the area from Bauchi Town, the mountain ranges look magnificent and imposing. This is because the mountain complex is a plateau in itself and stretches over an area of about 16 kilometres from east to west and about 10 kilometres from north to south. This complex, associated with a lot of mysteries of origin, has nurtured a human history of great antiquity and migrations that the people hold very dearly right from historical times.

### Climatic Changes and the Peopling of the Central Sudan

Palaeoclimatic studies by Rognon and Williams (1977) and Sowunmi (1987) have shown that there were essentially two periods that the changes from wet to dry phases were dramatic, from about 20 to 12,000 YBP and from about 7,500YBP. There is evidence to show that these changes brought about not only a substantial alteration in the distribution of surface water, but also a series of revolutionary modifications in the fauna and flora and consequently the conditions of human life (Smith 1987) .

Among the effects of these changes was the drying up of the great Chad, eventually leaving only the shallow lake which is as we know it today, in its south-western corner. Furthermore, the dense vegetation of the southern edge of this region retreated to leave in its place the Guinea Savannah of today. Indeed, the northern half of the region suffered extreme desiccation to produce a desert of sand dunes stretching from near Agades eastwards into the Jurab depression which was once the deepest part of the Mega-Chad. The last change produced what is called the great erg of the Tenere and that its eastward extension, may perhaps have been completed only in the second millennium B.C.

Speaking in very general terms, therefore, we can say that the Mega-Chad was in existence until about 7,000 - 4,000 YBP when it began to shrink as a result of progressive desiccation. And therefore, it is from this period that we can begin to consider the emergence of the hunters, farmers and pastoralists who lived in the region, producing an entirely new configuration for this region in so far as conditions for human settlement are concerned. That at first there developed a roughly triangular stretch of country, Azben-Borku-Chad, practically uninhabitable to human beings, except along the Chad-Bilma-Jao route. This meant that for the last three or four millennia there had existed in this region two zones where men had been able to live, effectively separated from each other by the great erg, and only had contact in the area immediately surrounding Lake Chad. Furthermore, even in the neighbourhood of Chad, east-west, communication probably remained difficult for a long time, because of the swamps adjoining the lake on the southern side. This therefore meant that the historical development of the region south-west of the erg had been separated in many ways from that of the eastern inhabitants.

Another important effect of the desiccation, according to Smith, was the thinning out of the population in the northern part of this region on both sides to the erg barrier and a concentration of population in the south. As a result of the declining rainfall, northern population would have no alternative but to move southwards into the relatively more humid lands of the Mega Chad basin and the country between the Chad and the great bend of the Niger. It could have been this north-south movement of peoples during the era of the desiccation that may account for the basis of the many legends of ancient migration which characterise the orally preserved traditions of the people of Hausaland and Kanem-Borno of the present day. And that in a very general sense it can no doubt be argued that this concentration of population in the south eventually provided one very important condition for the emergence of state-like forms of government in the northern part of the region (Smith, 1987:80). A situation such as this would no doubt demand an answer to the fate of peoples already living in the southern zone. This is because the desiccation Mega-Chad was likely to have attracted people into the bottom-lands from all directions, creating a fertile source of conflict among the immigrant groups; conflicts which, for example, could have produced the Kanuri people who subsequently dominated the area either by assimilating or driving away of the southern peoples (Smith, 1987:83).

Furthermore, Smith points out that west of the Chad witnessed a different development during this period as no great imperial northern power emerged to dominate the southern area. It must be noted that Hausaland and Borno were linguistically homogeneous, belonging to the Chadic languages, which appeared to have been the language of the northern immigrants. Thus, the southern frontier of the region was a linguistic frontier, marking the dividing line between Chadic speech and the quite different Niger-Congo speech to the south. This frontier might have been established as a result of the southward displacement of Niger-Congo peoples in the face of an invasion of Chadic language speaking groups immediately south of the frontier. This suggestion is supported by Hoffmann's study of the ancient Benue-Congo loan words in the Chadic language (Hoffmann 1970).

The Chadic languages themselves as far as the Central Sudan is concerned have been classified into three major divisions, namely: the Western Chadic, found exclusively in Nigeria; the Central Chadic, found in Nigeria and Cameroon and the Eastern Chadic found almost exclusively in the Chad Republic. The earliest split between the Chadic language branches took place around 4,500 YBP. This was followed by a second split between the Western and Central branches around 4,200 YBP. And between 4,100 and 4,000 YBP the three branches were divided into two sub-branches each of which formed the eastern and western language groups (Holl 1995).

Regarding the above language changes, Holl (1995) was able to point out ideal parallels between historical linguistic reconstruction of the expansion of

the Chadic languages and the available archaeological evidence from the Lake Chad basin which suggest that societies concentrated close to Lake Chad basin. And from these three categories of occupation could be identified as follows: the early Late Stone Age settlements identified at Blabli and Konduga (about 7,000 – 4,000 YBP); the middle Late Stone Age settlements identified at Bama, Sou, Gajigana, Kursakata and Shilma (about 4,000 -3,000 YBP); and the later Late Stone Age settlements of Daima and Mdaga of about 3,000 -2,000 YBP. These settlements were mainly seasonal and semi-permanent while more permanent and virtually sedentary village-based communities seemed to have developed from about 2,500 YBP as evidenced at Daima and Mdaga (Holl 1995).

From the above evidence, the settlement system of the Chad basin could be summarised as follows: dry season camping in the extensive clay plain of the Chad Lagoon complex with sites shifting from place to place (such as the site at Shilma); and the semi-village based communities who lived on the sand-island above the annual flood levels, resulting in the successive accumulation of cultural deposits found in such mound sites as Daima and Mdaga.

Using the above evidence Holl (1995), avers that the speakers of the proto-Chadic dialects were settled along the Maiduguri-Bama-Limani-Bongor ridge during the maximum extension of the Early Holocene Mega Lake Chad between 10,000 and 6,000YBP. And their territory might have extended between the western parts of the ridge to the early Chari delta to the east and between the lake shoreline in the north and the Mandara Mountain in the south. He therefore tentatively suggests that the ancient Chari delta is related to the present-day distribution of the Western Kera-Tobanga (KT) sub-branch of Eastern Chadic, and the ancient Logome delta coincides with what could be considered as the area of speakers of the Jina-Yedina (JY) sub-branch of the north-eastern Central Chadic, while the Bama deltaic formation coincides with the Western and Central Chadic integration zone. However, most of the studied settlements in the Chad basin are studied between the Logome and Yedarum Rivers, an area presently settled by speakers of Central Chadic from the Jina-Yedina sub-branch and Kanuri, which has expanded through conquest and assimilation of former Chadic speakers during the first half of the second millennium AD. The expansion of settlements and the colonisation of the central part of the Chadian plain can therefore be considered to be contemporaneous with that of the speakers of Proto-Central Chadic languages.

## Political Transformation in the Central Sudan and the Southward Migration of Ethnic Groups

Although there is evidence to suggest that political developments in Hausaland had consequences on the Central Nigerian highlands with regard to migrations (Nengel 1991), it was the emergence of the Borno Empire that brought about the climax of events that followed. The Borno Empire was

established in the Wadai region further north of Lake Chad probably between 750 A.D. and 800 A.D. and had all its exploits northwards until after the death of Mai Dunama Dabalemi who was drowned while on pilgrimage to Mecca near Suez possibly at the port of Berinice or Barnik circa 1150 A.D (Palmer 1970:1). With the death of this great Mai, the empire was not to be the same again as it was engulfed in a series of civil wars that culminated in the movement of the Empire to N'gazargamu at the western part of Lake Chad, when at about the end of the 15th century Mai Ali Ghaji Dunamami reestablished the dynasty and revived its power and prestige (Palmer 1970). The movement of this empire to the western part of Lake Chad was to have severe consequences on the ethnic groups that had prior to this movement been flourishing in the area. Mangvwat (1984: 4) is even of the opinion that among such consequences was the movements of ethnic groups to as far south as the Jos Plateau.

It must be stressed here that series of immigrations and internal migrations took place on the Jos Plateau prior to the developments in the Borno Empire (Morrison 1976, Nengel 1991), the most vivid ones being the ones narrated by Mangywat (1984) when various groups migrated onto the Plateau in phases. The first phase, according to Mangywat, was between about 200BC to 1000AD. This was followed by the second phase of about 1100 to 1700AD, characterised by the political developments in the Kanem-Borno region and the emigrations of groups who refused to be incorporated into the new Kanuri polity to other regions especially the southern Bauchi and the Jos Plateau. The period between about 1600 to about 1800 AD was associated with the Jukun activities of the Kwararafa Empire that affected the peoples of the southern parts of the Plateau. The fourth phase was related to the Fulani herders and Hausa traders, which culminated in the Sokoto Jihad of about 1800 to about 1907 AD. The fifth phase was the colonial period, from 1907 to 1960. This period witnessed massive immigration onto the Jos Plateau by the Hausa, Kanuri, Igbo, Yoruba and other groups from all over Nigeria.

In the Dass area, the earliest inhabitants were the Barawa who occupied the mountainous area, and claim to have lived in the area for about 900 years (Othman 2009). They were followed by the Bankalawa who settled at Dot, Bundot, Bajar and Bagel claiming a settlement history of about 500 years (Othman 2009: 279). Fieldwork undertaken in the Southern Bauchi area by the author of this work tends to support the Barawa as the earliest migrants to the area and this corresponded with the rise of the second Borno Empire (Othman 2009).

The Wandi for example claim that they migrated from N'gazargamu in the Kanem-Borno area in the 17th century. From Ngazargamu they settled at Kukargadu near Potiskum in the present Yobe State and then moved to Barkuwanlang within the Bauchi area. It was from the Bauchi area that they migrated to Bar in the Tafawa Balewa area, south of their present-day settlement area. From the Tafawa Balewa area they moved to the Beli Hills to

the north and again moved to Maigoshi. These movements were said to have taken place at about 1800 AD. However, in order to unite with the Bar people who were of similar origin they moved to the Mbula Hills in 1801, one year later. Other groups that the Wandi people met within the Mbula Hills complex included the Gyamas, the Gwah and the Lydan (Othman 2009). The Durr people also claim migration from Kukawa, in present-day Borno State, under the leadership of Tabang Mlar. From Kukawa, in the caurse of time, the Durr people got to Lere in the Tafawa Balewa area. There they met the Rafawa people with whom they cordially lived together until the outbreak of the Jihads of Usman dan Fodio, which made people to move to strategic defensive positions. The Durr and the Rafawa, in their search for a safer place moved to Sauron Zaki where they met the Mwargi people (Othman 2009).

Tubang Mlar died at Sauron Zaki. Sauron Zaki soon became unsuitable for the Durr people who again migrated, this time around, under the leadership of Zai-Zai, to Doll. From Doll the Durr people moved to Babang, which in Durr language means old settlement. From Babang the people moved to Doll Katanga. It was at Doll Katanga that the two sons of Zai-Zai, Wargi and Zamfara, decided to go their separate ways in order to get enough farmlands. The younger son moved to Kyerkem, from where they moved to their present-day settlement. And these are to be the Durr people as they are known today (Othman 2009).

Similar traditions of origin from the Borno area are found among the Sayawa of the Tafawa Balewa in the Southern Bauchi Area as most of them, particularly those of Sara, Sigidi and Boi, would tell you of a homeland in the Kukawa area before they moved to the hills around Bauchi town and then dispersed to their present-day areas (Shimuzu 1978: 2). Although the Barawa and the Sayawa groups appear to have migrated to the Dass area at about the time of the establishment of the second Borno Empire, going by the genealogical records of the Lukshi, for example, there appear to be a few mix-ups in the dates of their migrations which tend to spill into the era of Idris Alooma. The mix-up could have been as a result of their close association with the Bankalawa.

There is also evidence to show that there were series of migrations from the southern Bauchi area onto the Jos Plateau and beyond. Studies undertaken on the Jos Plateau tend to emphasize the Southern Bauchi area as the centre of such migration (Nengel, 1990; Nengel and Yearwood, 1990; Mangut J. 1986, 2006; Mangut, B. 1990; Mangut, J. and Mangut, B. 2009). In essence what we find is that there is scarcely any study involving origins and migrations of ethnic groups on the Jos Plateau that does not mention the Southern Bauchi area as the centre from where the immigrants finally ascended the Plateau. A similar pattern is found among the ethnic groups at the western foot of the Jos Plateau. For example, the Mangar, the Arum and Chessu people claim origin from the Southern Bauchi area (Frank, 1978; Isichei, 1981; Mangut J. 1986, 2006; Mangut B. 2008).

Using historical archaeological approach Mangut and Mangut (2009) averred that the homeland of Kulere and the Ron ethnic groups of the Southwestern Jos Plateau was in the Dass area of the Southern Bauchi Area (see figure 1). It was discovered, for example, that the Ron people share the same cultural practices with the Bundot and the Baraza people of the Southern Bauchi Area as well as similar ritual areas in which human skulls were stored (see plates 1and 2). The ritual areas were normally rock shelters in which human skulls of elders were stored. Both areas share a similar practice of removing the skulls of elders, about six months after their death, and storing them in rock shelters after performing some rituals. The pots that were found in the rock shelters were the pots that contained the drinks used during such ceremonies.

To further ascertain the Kulere people's claims of origin from the Southern Bauchi area the author, (Mangut, B. 1998) conducted some excavations in Sarau, one of the oldest abandoned settlements of the Kulere. The main aim of her excavation was to examine the cultural viability of the abandoned settlement to determine its antiquity. The excavation which yielded only one cultural level tended to suggest a relatively recent antiquity when compared with the older Ron sites of Manau. Although no absolute dates were obtained, a physical examination of the potsherds suggests that the settlement could have been a transitional one and this is in agreement with the oral tradition of the Kulere people. Further analysis is however required to ascertain this point. Nevertheless, claims of dispersals from the Southern Bauchi area of most groups of the south-western Jos Plateau societies therefore seem to be valid.

A similar tradition is found among ethnic groups in the Southern Kaduna area. In the work published by Dauke (2004), he graphically described the movement of the Atyab (Kataf) people from the Southern Bauchi area through several places before they finally settled in their presentday area of Zangon Kataf. In one of the versions of the Atyab movements, it is said that from the Bauchi area, the Atyab moved northwest to the Kurama area, which at that time was under the political influence of Kargi and probably Kano as well. From this place the Atyab moved southwards to their present-day settlement (Dauke 2004: 8 and figure 2). This version is corroborated in the oral history of the Kahugu who are in Lere area farther to the north of Atyabland (Dauke 2004). It is further claimed in the Kahugu oral history that they once lived together with the Atyab on the Kudaru hills as good neighbours which brought about intermarriages between them such that today there is a clan in Kahugu that is referred to as Katab (Kabaza in Kahugu). Other groups in the area that are very close to the Atyab and have similar cultural affinities are the Kachechere, the Asholio, the Agorok (Kagoro), the Attakad and the Atylen.

The Bajju who are the western neighbours of the Atyab also share the same history of origin from the Southern Bauchi area. They only differ in the routes they followed before finally joining the Atyab in the area (Dauke 2004:

9-10). It is said that the Bajju split from the Irigwe on the Jos Plateau and descended the plateau under the leadership of one Baranza to Angwan Tabo in Atyabland before moving to Kurmin Bi (Zonkwa).

Further to the west of the Atyab and the Bajju are the Gwong and the Ham people. These ethnic groups belong to the Platoid sub-family of the Benue-Congo language family (James 1997: 5). They are therefore of a separate origin and migration from the Atyab or the Bajju but then the movements of ethnic groups from the Southern Bauchi area one way or the other could have affected them as the Gwong people tend to emphasize the Jos Plateau as the place from where they moved to their present-day places. According to the oral history of the Gwong, the immigration of the Southern Bauchi ethnic groups like the Bajju onto the Jos Plateau triggered a series of movements, first on the Plateau itself and thereafter, beyond the plateau. While on the plateau they inter-married with Miango before moving through the Kagoro Hills to around Gidan Waya to the present-day Fadan Kagoma area and then to Fyori where the Goma were founded (Wyom 2004).

It can therefore be concluded that while the Chadic speakers from the Southern Bauchi area moved south-westwards as shown by the Ron and the Kulere people (see figure 1), the Bantoid speakers of the Benue-Congo language family moved westwards as shown by the Atyab migrations (see route B, figure 2). These migrations can therefore be seen as protest movements that have their origin in the political and social development in the Borno area. Indeed, historical archaeological research in the central part of Nigeria is at the early stages, and the author is of strong opinion that with more research work in this direction there would be wide information to demonstrate that nearly all the migrations in the area have been in one way or the other in response to the developments in the rise of the Borno Empire between the 15th century and the later part of the 18th century.



Plate 1: Human skulls of elders found at the Bundot(Southern Bauchi) ritual area.



Plate 2: Human skulls of elders found at Fai-a-Run (Jos Plateau) ritual area.

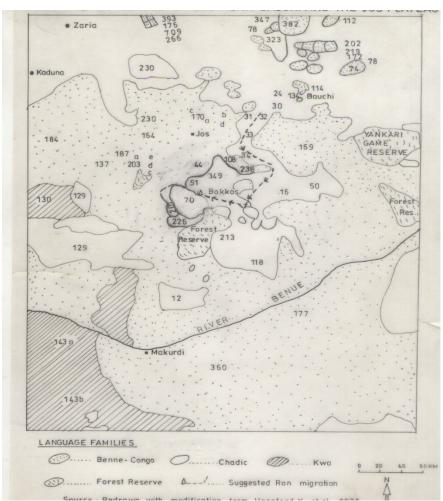


Fig. 1: Movements of the Chadic language family from the Southern Bauchi to the south-western Jos Plateau

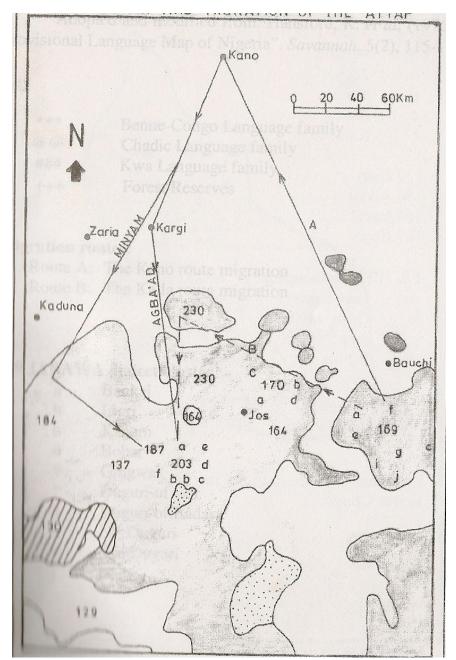


Fig. 2: A map showing the movement of the Atyab people from the Southern Bauchi Area to the Southern Kaduna Area.

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