The armlets when completed, have a much neater and more ornamental appearance than might be expected from the rather rude method of their manufacture. The prevailing colour is red, with streaks of blue, white, and other colours– giving them, as I have said, somewhat the character of agate. The shape is very much like that of a quoit; and they are usually worn [by men] in pairs, two on each arm, just above the elbow, the flat surface of the contiguous armlets being in contact. Those made by Mahama were greatly in request amongst the more dandified Wongáras of Bontúku and the surrounding towns, and usually sold for about twenty cowrie-shells each, and one set, which he manufactured from the fragments of a broken green glass lampshade of mine, was sold, I believe, for quite a fabulous sum.

29. BEADS AND THE EMERGENCE OF THE ISLAMIC SLAVE TRADE IN THE SOUTHERN CHAD BASIN (NIGERIA), by Detlef Gronenborn (2001, 38:4-11)

During the course of an extensive research project funded by the German Research Foundation (DFG), archaeological excavations were undertaken in the southern Chad Basin in present-day northwestern Nigeria, close to the Cameroonian border (Gronenborn 1998). This research followed earlier endeavors on the Nigerian side by Connah (1981), Holl (1988), Lebeuf (1981), and others on the Cameroonian and Chadian side of the extensive clay plains south of Lake Chad (Fig. 1).

On this still yearly and widely inundated territory, human settlement is limited to isolated sand dunes, which protrude through extensive clay layers. The latter are the remains of the once much more extensive Lake Chad (e.g., Thiemeyer 1997). After about 6000 cal B.C., the lake began to retreat, and after around 1000 cal B.C. vast territories south of the lake were open for human settlement. At first late Neolithic pastoralists settled on the dry sand "islands," and after a hiatus of several hundred years, Early Iron Age farmers began to build permanent villages. The Early Iron Age is again separated from the Late Iron Age by a short-term hiatus and the Late Iron Age sets in sometime during the 7th-8th centuries (Gronenborn 1998).

The excavations by the German team resulted in a revised ceramic sequence, namely of the Late Iron Age and Historic Periods. The chronological succession of pottery traditions has further been confirmed by a series of ^{14}C-Dates (Gronenborn 2001). With this newly established chronology in mind we turned back to the sequence of the site of Daima, one of the largest settlement mounds in the whole region which was trenched by Connah (1976, 1981) in the 1960s. It became apparent that his earlier chronological interpretation as to the end of settlement had to be modified and that, in fact, his first impression (Connah 1967) was more likely, namely that the site was abandoned sometime during the early 17th century and not during the 13th as he had later concluded from ^{14}C evidence. Already Wesler (1999) had suggested a modification of the stratigraphic interpretation on the basis of a seriation of Connah's pottery types. This interpretation, then, was supported by our work; conclusively the terminal date for Daima had to be lifted up which resulted in the chronological spreading of the whole packet of upper layers (Fig. 2). This rearrangement also affected the interpretation of exchange-connections implied from the appearance of non-local materials such as copper alloys, carnelian, and glass beads. When the stratigraphic position of these materials is plotted (Fig. 3) their limitation to the upper layers of the stratigraphy becomes apparent. While previous analyses of the development of external contacts were based on the assumption that the layers would date between the 10th and 13th centuries (Connah 1981; Holl 1995), the new chronological scheme shifts them to the 14th to 16th centuries. According to the new chronology, only then wide-reaching external contacts are evident in the archaeological record. The sources of the copper alloys are of no concern in this article (for further information *see* Gronenborn 1998), but rather the origin of the glass and carnelian beads found at Daima and other sites in the southern Chad Basin and even more so the question as to why do they appear?

Many of the carnelian beads at Daima are similar to ones found by us in association with a burial that dates between the 14th and 16th centuries (Fig. 3). Specimens are elongated to keg-shaped, dark to bright red in color and often show internal flaws. According to a preliminary visual examination by Timothy Insoll of Manchester University, beads of this kind could come from the Western Sahel or the Central Sahara and are comparable to material from Gao (Insoll and Shaw 1997; geochemical analyses are under way). Delaroziere (1994:68-69) depicts similar shapes from present-day markets in Niger, Nigeria, and Gabon, but considers them to be of red jasper. Hence, the exact attribution will have to await the University of Manchester's analyses. Nevertheless, they are not of a Chad Basin origin.

Another type of bead which was recovered in our excavations is quite different in shape. It is slightly larger and elongated with six facets (Fig. 4). The specimen depicted comes from the upper layers of the site of Ndufu (Gronenborn 1998) which dates between the 14th and 16th centuries, probably towards the end of this time span. Insoll visually examined this material and came to the conclusion, that "it is very similar to Gujerati (Indian) material which was produced for the African export trade" (Insoll, pers. comm.;

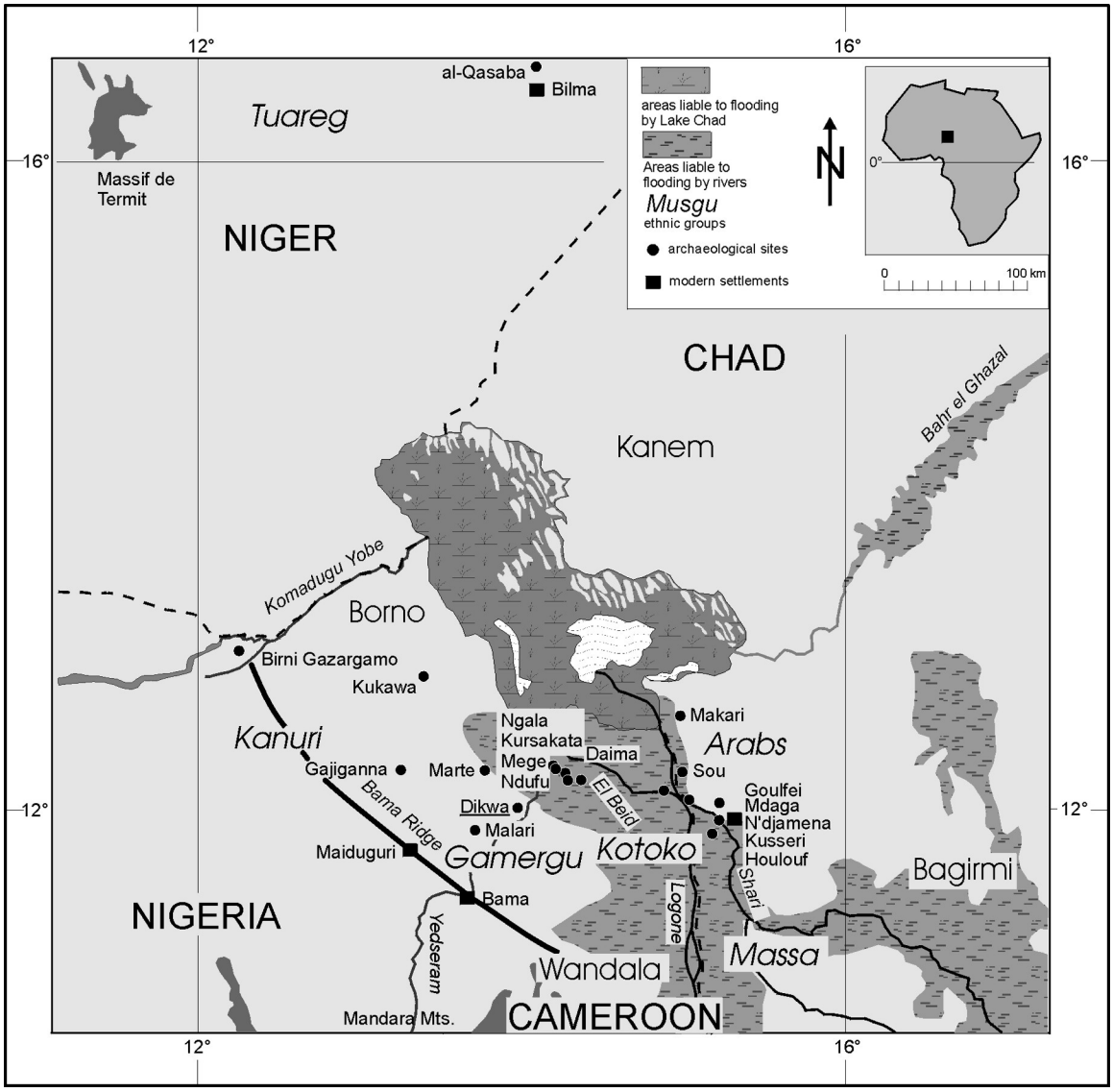

Figure 1. The southern Chad Basin showing important archaeological sites and modern towns.

for the Indian sources *see* Arkell 1936). The provenance of the glass beads is even more difficult to discern. They are mostly blue, green, or white and cylinder- and keg-shaped or discoidal. Lebeuf (1980) considers a Venetian origin for the blue varieties and the green beads should have been produced locally. Holl (1995) generally considers a provenance from Nupe or Yorubaland. Blue beads were produced in Gao from the 9th century A.D. onwards (Insoll and Shaw 1997). In any case, as uncertain as the exact origin of the beads presently is, it is certainly very clear that they do not derive from the southern Chad Basin but rather constitute items which were either moved in the northward-oriented trans-Saharan trade or along routes which connected the large sub-Saharan commercial and political centers.

The relatively late and sudden appearance of trade goods of external origin in the southern Chad Basin–beads, copper alloys–and their absence from earlier layers in the sequences raises the question as to which historic processes led to this archaeological picture. A careful examination of Arab accounts on the Central Chad basin reveals that contacts between the emerging Islamic states–namely Kanem-Borno–and the non-Islamic segmentary societies south of Lake Chad were minimal before the 13th to 14th centuries. Only occasionally did the sultans undertake expeditions towards the south, and this solely with the object of obtaining slaves (Gronenborn 1998). Very instructive is a passage by al-Maqrizi, a historian who lived in Cairo between 1364 and 1442. He wrote:

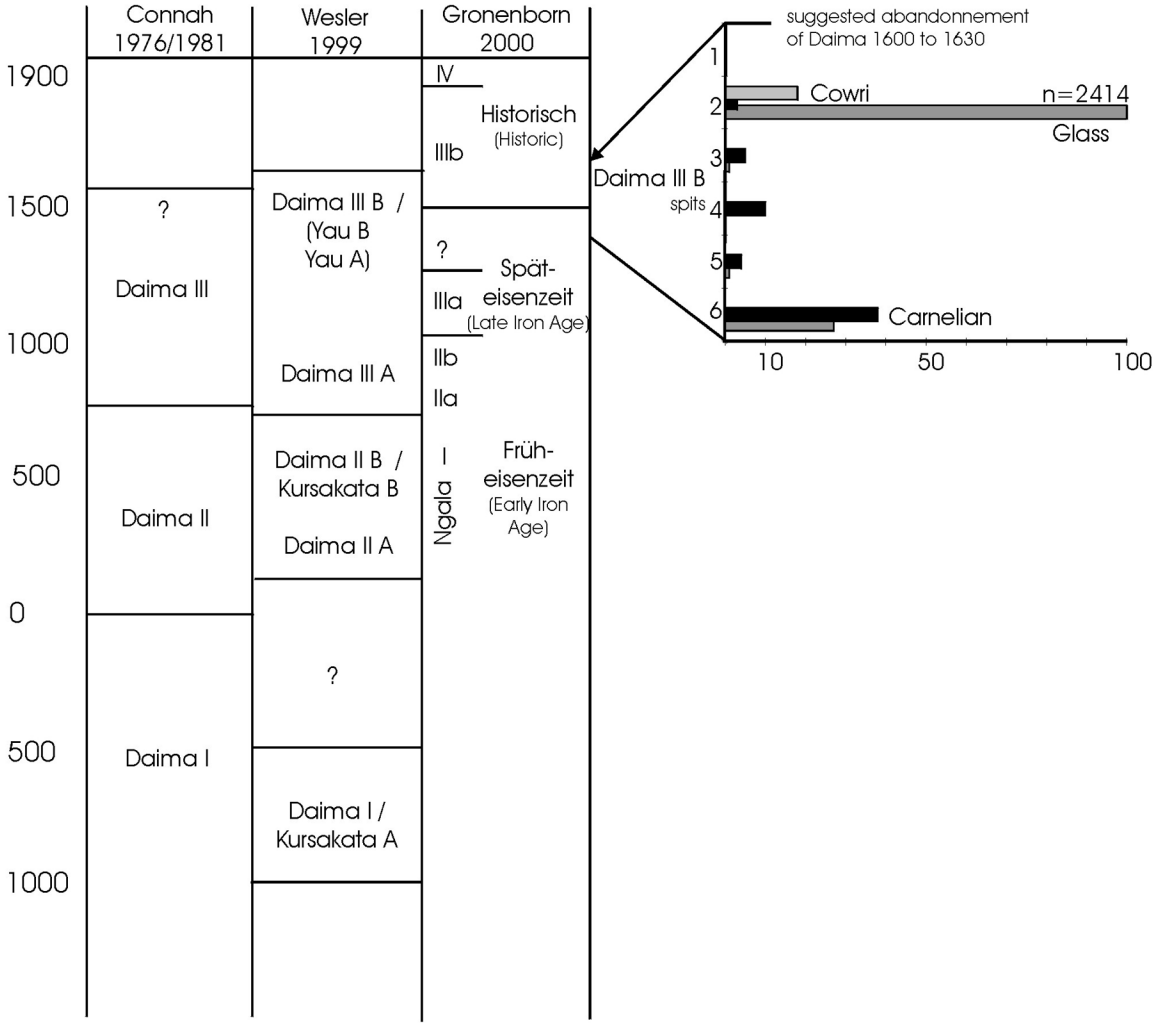

Figure 2. Different pottery sequences showing the stratigraphic position of "exotic" pieces of adornment from burials at Daima.

> In their country [diverse ethnic groups listed before] there are big trees and pools (*birak*) from the Nile [a common misunderstanding in Medieval Arab sources, likely either the Shari or Logone, tributaries to Lake Chad]. The King of Kanim made a raid on them from Aljama [capital of the Kanem-Borno Empire] about 1252-3 and slaughtered and took prisoners (Levtzion and Hopkins 1981:354).

Throughout the 13th century, the Kanem-Borno empire had no territorial interest in the regions south of the Lake. This changes, however, when under pressure of neighboring groups and probably also because of climatic decline, the ruling dynasty was forced to leave their traditional homelands. Now the empire engaged in a series of military advances with the aim to subjugate the region. As so common in the Sahelian and Sudanic zones of Africa, these military actions were combined with slave raids (Gronenborn 2001; Reyna 1990). But, as can be inferred from 19th century's analogies, interaction between raiders and the enslaved was by no means a simple and unilineal process. Rather, a complicated network between the Borno military commanders and local headmen should have emerged and the latter might quite often have sold their politically weaker neighbors to the Muslims. Also, fierce resistance was organized by the non-Muslims and the sultans finally had to leave the region. However, with the adoption of firearms by the Kanem-Borno army during the middle of the 16th century, the region was finally subdued and parts of the population were led into slavery; others migrated southward (Gronenborn 2001). The appearance of "exotic" trade goods in burials as well as on settlement sites with the beginning of the slave raids from the north is thus seen in connection with these raids. Likely

Figure 3. Mege; burial with beads. The rightmost one is of quartz (L 10, W 12, W 2 g). The carnelian/jasper specimens vary in length from 13 to 15 mm, and in weight between 2 and 3 g; the width is always 11 mm.

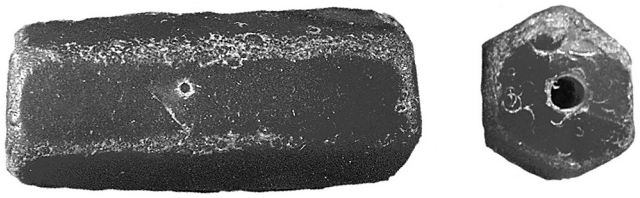

Figure 4. Ndufu; Carnelian bead. L 29 mm, D 13 mm, W 7 g.

through alliances with local potentates, slaves had been exchanged for beads and copper alloys. Indeed, as historic accounts show, still during the terminal 19th century, beads were used as an exchange medium in the trade on slave markets in northern Cameroon (Fig. 5). This is reflected by the following passage from Passarge (1895:433 [translation by the author]):

> Beads come in two sorts called *garambú* and *gursáli*, respectively. The *gursáli* are large and keg-shaped, the drilling hole shows spiral grooving. Three kinds can be differentiated according to color and translucency. *Bákki* are dark blue and opaque, *schúdi* are of sky blue color and slightly translucent, and *fálli* are bluish-white and translucent. The *garambú* are small, flat disks. Of these I have only seen bluish-white beads with a shine. The Fulbe women prefer the *gursáli*. These are also used to buy ivory, while the *garambú* are used in the slave trade.

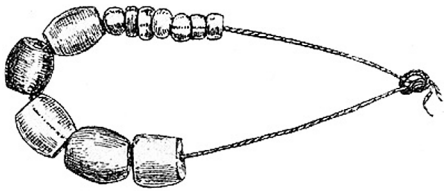

Figure 5. *Garambú* and *gursáli* beads from Kukawa market, Borno; 3/10 nat. size (Passarge 1895:433, Fig. 205).

Another trade item from the non-Muslim lands to the south of the lake which is mentioned by al-Maqrizi, is ivory. Also, during the 16th century iron seems to have been a major export article. By then local powerful princedoms had emerged under the pressure of the slave raids, of which many were, curiously enough, allied with Kanem-Borno; slave raids had largely ceased in the region and were directed further south where they continued up to the early 20th century (Gronenborn 2000; MacEachern 1993).

As so often is the case on the African continent, and seemingly also for the southern Chad Basin during the 14th to 16th centuries, a link may be established between trade beads, external slavers, and local potentates: non-muslim people were exchanged for beads and other "exotic" pieces of adornment in the course of the merciless Islamic slave trade (e.g., Hogendoorn and Johnson 1986); a theme recurrent elsewhere in the history of slavery (e.g., Perdue 1979).

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30. NOTES ON THE EUROPEAN BEAD INDUSTRY–1897, by Albert Hartshorne (1986, 9:20)

Up to about forty years ago beads of the ordinary self colours were made by small workers in Bethnal Green and Shoreditch [London]. They bought their coloured glass canes from the glass-makers and melted them at a jet, dropping the metal upon a copper wire coated with whitening, the wire being turned during the process, and when cold the beads would slip off. The men were, however, so careless and unpunctual that the trade came to an end. Bead-making at the present day is in continental hands, principally in the district of which Reichenberg, the second manufacturing town in Bohemia, is the centre. The largest export from hence is of glass beads coming chiefly from Gablonz and finding their principal market in Paris. Figured beads come from Venice as of yore. The opening up of Africa is giving an impetus to the trade, and an idea may be formed of its extent by the fact of between sixty and seventy tons of beads having been lately destroyed by fire on the premises of Mr. L. Levin, a bead merchant in Bevis Marks. (Albert Hartshorne, 1897, *Old English Glasses*, p. 106 n.)

31. A NOTE ON CHEVRON AND OTHER BEADS FROM TRINIDAD, by Charles A. Hoffman and Thomas F. Lynch (1990, 17:14)

Two large, Spanish, faceted chevron beads were found in the Late Ceramic site of Mamoral, in central Trinidad.