THE NEOLITHIC-EARLY IRON AGE INTERFACE: THE NORTHERN GHANA EVIDENCE

F.J. Kense

The three millennia between 2000 B.C. and A.D. 1000 witnessed three major developments which irreversibly altered the course of West African pre-history. The first entailed the transition to agriculture and domestic stock keeping; the second was the intensification of agricultural exploitation through means of an iron technology; and the third was the gradual integration of societies within trading networks that ultimately linked the forest areas of the south with the urbanized *entre pots* of the Niger River Basin.

The history of archaeological research in West Africa has been such that only very specific areas, mostly in Ghana, Mali, Nigeria and Senegal, are known in any detail. Even in these regions, available evidence for several crucial periods remains surprisingly incomplete or cursory, even after decades of archaeological investigation.

One of the "information gaps" in the pre-historic record extends from about 1000 B.C. through A.D. 1000 in northern Ghana. Archaeologically, this period lies between the end of the distinctive Kintampo culture and the appearance of several diverse later Iron Age groups throughout the region.

In fact, except for the isolated remains of an iron furnace from Brong Ahafo and some material from a disturbed context at Ntereso (both contexts date to 100 B.C. - A.D. 100), the general view has assumed a virtual abandonment of the region for much of the period. Flight wrote that:

> Were it not for the evidence of a few sherds from KI, it could be thought that the area was entirely uninhabited during the last millennium B.C.
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> (Flight 1976:22)

Posnansky extended, at least implicitly, the period of abandonment by a further thousand years when he noted that:

> . . . there is as yet no evidence of continuity between the Kintampo material of before 1000 B.C. and the Begho material of A.D. 1000
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> (Posnansky 1982:260)

Culture historical reconstructions which incorporate lengthy periods of abandonment have little descriptive or explanatory potential and are usually only resorted to by pre-historians in the near total absence of any evidence. Clearly it would be inexplicable for a region that has successfully supported a Neolithic tradition and numerous later Iron Age communities, to have been uninhabited for nearly two thousand years. As Posnansky suggested, it is probably the lack of excavation that is at fault and not the lack of evidence.

It may be added, however, that it is not an absolute lack of excavation in the region that has produced this bias, for considerable investigation has been undertaken over the years, but rather that the excavations have not been concentrated in the most suitable areas for the relevant information. But before one can hypothesize the probable location of sites, there has to be some understanding of the overall course of cultural development in the region.

Some indication of this development is provided by the research carried out at Daboya, Ghana since 1978 by Peter Shinnie and the writer. We originally selected Daboya for investigation because it seemed suitable for examining archaeologically the impact on material culture of the socio-political changes introduced by the establishment of the Gonja State in the Seventeenth century (Kense 1981). We soon realized, however, that the history of occupation at the site far exceeded the time depth we had anticipated for a late culture contact period.

In this paper, I present the evidence for the early Iron Age settlement at Daboya and specifically examine its relationship to the preceding Kintampo community. As a reflection of the available data, the comparison is based primarily on the material remains; nevertheless, the analysis indicates that although the area was not abandoned for any great length of time, the transition from the Terminal Late Stone Age to early Iron Age was a major cultural change.

Daboya (9°31'N. 1°22'W.), a modern day town of some two thousand inhabitants, is located along the west bank of the White Volta River. The river, which in spite of considerable seasonal fluctuations in height and force flows year-round, is gradually undercutting its west bank just below the town. This produces a fairly steep embankment of about four to five metres in some places. That this elevation is not solely a geological phenomenon is evident when the town is approached from the south and southwest, for it can be seen to rise distinctly as several tell-like mounds above the surrounding floodplain.

Although the general vegetation around Daboya is best described as savanna-woodland, remnants of gallery forests are still extant both up and downstream form the site while within the town itself, several huge kapok tree (*Ceiba pentandra*) and a couple of baobab trees (*Adonsonia digitata*) have been protected to serve as cover against rain and sun.

The overall site is about one square kilometre in area, but seriation of the cultural material and comparison of the radiocarbon dates make it clear that habitation has periodically shifted across the area. There has also been a general tendency for settlement to have moved northward and north-westward over time so that the oldest occupied areas are located to the south.

Although there is also a suggestion of total site area reduction, it is not clear as yet whether this reflects a decrease in population, a change in settlement concentration or cycles of abandonment and reoccupation in different areas. The total area of the site actually excavated during four seasons of work amounts to some .04% (416m²) of the entire site.

The earliest cultural material recovered from Daboya, termed Ware A in the local sequence, appeared in two distinct areas of the site. One area (Db R and Db V) was identified through remains brought to the surface by the excavation of a waterpipe trench some 12 years ago. It is located some 20 metres from the river shore. The other area (Db K and Db Z) is located at the other end of the site, some 250 metres from the river. This area produced the early material at the base of the units excavated, just below considerably later cultural remains.

In both areas, the assemblages consisted of similar material. These included a very distinct type of pottery in terms of decoration and form, polished stone axes manufactured from a green stone, ground stone points (all with both edges serrated), stone beads, numerous so-called "terra-cotta cigars" and chunks of orangy-red burnt clay. The pottery, almost all unslipped and generally rather crudely formed, consisted of simple everted rim forms and mostly globular shaped vessels.

The decoration is predominantly comb-stamped or comb-impressed, either extending across the entire vessel, and often including the lip, or zoned across the neck or shoulder. A walking comb technique was also employed, although about 50% of the shreds were left plain. The enigmatic "terracotta cigars" were all broken fragments, and most had some form of scouring on both sides. Since 1978, all the "cigars" located at Daboya had been made from a kind of soft stone; only in 1982 was one recovered that was clearly manufactured from baked clay.

Unfortunately, as it was only a surface find, there is no indication as to provenience. The third group of material that is of interest comprises the chunks of burnt clay. Many of the fragments displayed the impressions of wood stalks in them, suggesting that the original mud had been packed between a wooden framework as in a wattle-and-daub construction. How or why these fragments became exposed to such intensive heat is not clear, but numerous chunks of such debris came from both areas where the Ware A material was found.

The Ware A assemblages closely resemble the material identified elsewhere in Ghana as characterizing the Kintampo culture (Davies 1967, 1973, 1980; Flight 1968, 1976). Much of this material is surprisingly uniform from most of the recognized sites and needs little further discussion here.

The radiocarbon dates associated with the Kintampo material from Daboya, of which there are now five, agree broadly with the chronology determined from other sites; there is, however, an indication from Daboya that the Kintampo may have commenced somewhat earlier and continued longer than has hitherto been recognized. That is, the Kintampo period may now be broadened to extend from the late third millennium B.C. through to the very early first millennium B.C. as evidenced from the following dates:

s-2371	Db R N20	12	2805±180 BP	1035 - 675 bc
s-2370	Db R M20	14	3405±155 BP	1610 - 1300 bc
s-2375	Db R N21	14	3195±325 BP	1570 - 920 bc
s-2373	Db R M21	15	2770±185 BP	1005 - 635 bc
s-2376	Db R N21	19	4235±150 BP	2435 - 2135 bc
s-2372	Db R M21	21	1285±450 BP	ad 215 - 1115

If the Daboya sequence for the Kintampo period can be confirmed by the additional results now awaited, it represents an important step in clarifying the position of the Kintampo culture in the pre-history of the region.

Although the context for the Ware A material proved elusive until 1982, that of Ware B was firmly established in 1978. The latter material was found in units excavated in twelve different areas, as well as in rubbish pits dug near to the project Rest House, although no surface materials were visible. One of the areas was identical to where the Kintampo material was recovered (Db R, Db V). Except for this latter area, the Ware B material always formed the earliest cultural component of the units investigated.

Extensive analysis of the Ware B material has resulted in the identification of three phases, each based on changes in the pottery style and decoration. BI consists generally of large-sized vessels with simple inverted rims and round-shouldered bodies. All these pots are decorated by a 'plaited' roulette technique that is not repeated in later ceramic traditions. On several of the earlier examples, it appears as if the process of rouletting was repeated along the upper portion of the vessel, resulting in a deeper and more complex impression.

On later vessels, there appears a dull red slip on the lip of inverted rims and often a broad, wavy channel across the upper portion of the vessel that is sometimes red-slipped as well. The few pots with simple everted rim forms utilized the same yellowish brown paste but were left undecorated. The B2 pottery was characterized by a change to single twisted roulette decoration that was deeply and clearly impressed into the fabric and the introduction of new vessel and rim forms. Similarity of paste and the stratigraphic relationship to BI provide the basis for suggesting a continuous tradition for these two phases.

The B2 vessels are also fairly large pots with globular bodies and everted, rolled rims that are heavily red slipped and polished. There is always a plain surface zone between the rim and the rest of the body which is rouletted. Contemporary with the B2 material is a group of sherds characterized by bands of chevrons, wavy lines, twisted roulettes or applied nodules delineated by incised grooves. Some of the decoration appears made by carved roulette, although this is being examined further.

Many of the designs are in raised relief. The vessels are not red slipped. This B3 material represents a unique grouping of

ceramics at Daboya, for these decorative patterns do not repeat themselves in later developments.

The radiometric dates associated with the Ware B material are informative. A total of nine dates, ranging from the first millennium B.C. (s-1856) through to the mid-first millennium A.D. (SFU-12) are as follows:

s-1856	Db100-15	2710±245 bp	760±245 bc
s-1858	DbF135-40	2340±100 bp	390±100 bc
s-1855	DbT a10-35	2135±290 bp	185±290 bc
Gx-6133	DbW A10-27	2010±140 bp	60±140 bc
SFU-274	DbH5 230-240cm bs	1870±100 bp ad	80±100
SFU-13	DbD150-7	1790±80 bp ad	160±80
SFU-273	DbH5 280-290cm bs	1770±110 bp ad	180±110
SFU-12	DbP2-26	1670±190 bp ad	280±190
T.L Alpha-562	DbWa 10-28	1500± 20 bp ad	150-750

The range firmly establishes the occupation of the area as covering precisely the period for which abandonment has been suggested. Whereas the only other evidence from this period had consisted of the two isolated recoveries discussed above, the Ware B material has a distinct spatial and temporal context at Daboya from which comparisons can be made with earlier and subsequent traditions.

In contrast to the assemblages associated with the Kintampo period, that of Ware B from Daboya consists of markedly fewer classes of material. Apart from the pottery, the only materials recovered were several grinding stone fragments, a section of an iron bangle and some bits of iron slag.

The absence of lithic materials other than the grinding stones is significant for it suggests, in conjunction with the admittedly sparse evidence of iron objects, that the technological base for the Ware B society was metallurgical. Sometime during the latter half of the first millennium B.C., therefore, iron technology was introduced to the peoples of the northern region.

Having established the existence of an early Iron Age tradition in this region which seemingly closely followed a successful "neolithic" tradition, it is of interest to know whether this technological change either represented a gradual incorporation of a new technique within an ongoing cultural system or formed an integral part of more radical cultural changes.

Since many sub-systems of a culture such as language, kinship and ideational variables remain unknowable, our reconstruction of culture change depends largely on the extant material remains. Although these remains are themselves not complete, they provide the most concrete evidence of cultural continuity or change in a particular area.

It is clear from the Daboya evidence that the cultures associated with the Ware A (Kintampo) and Ware B materials represent two quite distinct traditions. The differences are manifest not only in the presence or absence of an iron technology (itself inversely related to the presence of a lithic technology) but in all other material aspects as well. Ceramic forms and decoration techniques bear little relation to each other nor, incidentally, to later developments.

Significantly, many of the classes of material found in the Kintampo period disappeared in the early Iron Age period. These include stone beads, "terracotta cigars" and the burnt clay chunks. The stone beads were possibly replaced by metal or shell ones; whatever purposes the "cigars" fulfilled in the Kintampo tradition ceased to be important, for apparently no other item replaced them, and a change in house wall construction from the wattle-and-daub technique to layered mud would explain the absence of the chunks.

Although the cessation of stone bead manufacture may be largely a functional response to a new technology, that of the "cigars" and wattle-and-daub suggests more culture specific behavioural changes. The two traditions are sufficiently different that it seems most likely that the early Iron Age period represents the appearance of an intrusive group (or groups) and not a cultural transition from the preceding Late Stone Age population.

The extent to which organic remains were preserved at Daboya has been disappointing, particularly for reconstructing subsistence patterns. It is clear that by the early Iron Age period, the people at Daboya kept sheep, goats, cattle, chicken (guinea fowl?) and dog in substantial quantity and that all but the latter formed a sizeable portion of their diet.

This was in addition to dependence on fish and other aquatic animals, birds, rodents and various ungulates. Although direct evidence is lacking, the presence of grinding stones and the apparent permanence of the community suggests that agriculture was an important part of subsistence strategy. The evidence is less conclusive for the Kintampo period, both at Daboya and elsewhere. In fact, very little faunal material has been recovered from the Kintampo levels excavated in the two areas at Daboya, and none of it has been identified as domesticated.

The flotation of soil samples from one Kintampo area in 1983 (Db V) also failed to produce any evidence of botanical remains. The soil matrix was extremely clayey in texture and very hard-packed which, if this indicates water-related formation processes at the site, would have made the chances for preservation of biological material quite poor.

It is of interest, however, that from area Db V, from which both Kintampo and Ware B material were recovered, a number of domesticated faunal remains were recovered from the spits of the latter component only. Whether this is significant in terms of differences in the economic bases of the two groups or merely reflects differences in site function cannot be resolved at present.

The archaeological evidence from Daboya has demonstrated the existence of a sedentary, early Iron Age community from at least the mid-first millennium B.C. through to the mid-first millennium A.D. This has confirmed what was previously only poorly known from some isolated and incomplete evidence. Any historical reconstruction of the region which

hypothesizes a lengthy period of regional abandonment can now be rejected confidently.

It is clear that the cultural tradition represented by the Ware B group is quite distinct from that of the Kintampo. This suggests that the appearance of the early Iron Age peoples at Daboya represented the arrival of a new population group. In the absence of comparative material from the region, it remains impossible, unfortunately, to determine their antecedents at present or whether they represent a single expansion or several localized developments.

I hesitate to invoke dramatic, long-distance migrations, presumably from the north, to explain the appearance of the early Iron Age in this region. Rather, I view the early Iron Age communities as the result of gradual, but steady, infiltration into a sparsely populated region by small, iron-using groups with an intensified dependence on agriculture and animal husbandry.

This occurred between 800 and 500 B.C.., by which time the Kintampo had formally disappeared. The groups also carried with them different cultural ideals in ceramic, house construction and technology reflecting radical socio-cultural changes in the identity of the population.

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