MALI

An archaeological survey in the Songhay heartland of Mali

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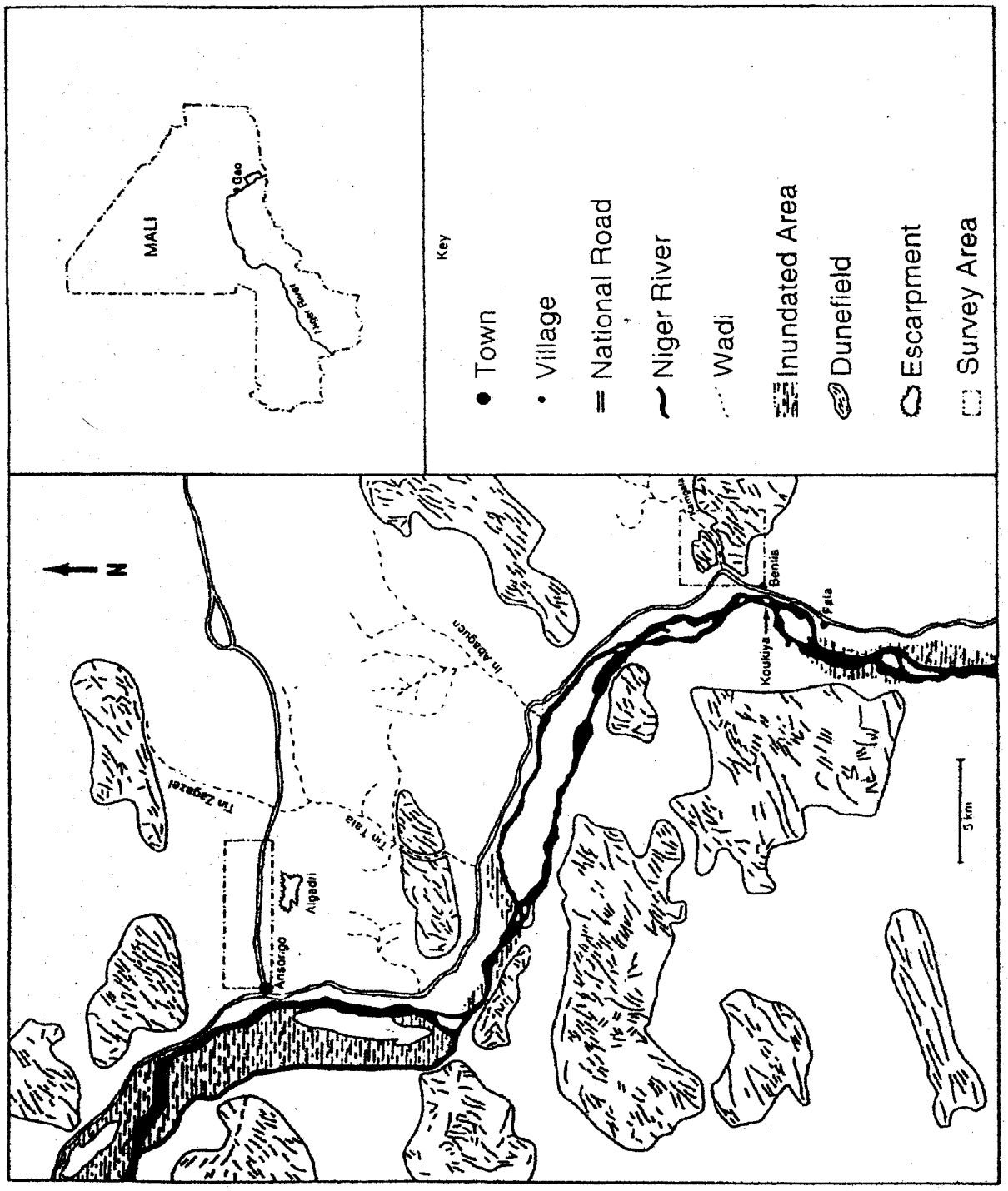
This report presents the results of an archaeological reconnaissance conducted during January and February of 1996 in eastern Mali in the area south of the Niger Bend[1]. The prime concern of this survey was to collect basic data on open-air sites in a region which has never received any systematic archaeological investigation until now, despite featuring prominently in historical and oral sources. My goal was to build a preliminary framework on the nature and distribution of archaeological sites for this region.

Our knowledge of the area south of the Niger Bend, also known as the Région de Gao, derives mostly from oral sources and Arabic chronicles or documents. The chronicles were for the most part written by North African traders and explorers from the 9th century A.D. onwards. The Ta'rik as-Sudan for instance, a well-known western Sudanese chronicle from the 17th century A.D., mentions the toponym of Koukiya, which has been identified by many scholars with the contemporary village of Bentia (located 180 km. south of the Niger Bend), as an important trading center between northern and southern regions of the Niger river. Moreover, Koukiya is described as the founding place of the first Songhay dynasty (Lange 1994:284), who were to rule one of West Africa's great empires, which during its apogee (1475 to 1600 AD) expanded over a territory of over 1,4000,000 km^2 (Hunwick 1985:347). The Ta'rik as-Sudan also seems to have been the most influential source for contemporary oral traditions of the Songhay ethnic group (Dramani-Issifou 1993: 152).

Archaeological investigations have mostly focused on Gao (Flight 1975, 1979; Insoll, 1993, 1994, 1996), situated on the Niger Bend, which from at least the 9th century A.D. onwards is claimed to have developed as a regional capital, first as that of the kingdom of Kaw-Kaw, later as that of the entire Songhay empire. To this day Gao constitutes the administrative capital of this region. South of Gao archaeological research was limited to investigations conducted during the colonial era. French explorers (Desplagnes 1907; De Gironcourt 1920) mainly focused on recording Islamic and pre-Islamic funerary monuments. The largest of these cemeteries was recorded by De Gironcourt in the vicinity of Bentia. It measures 15 ha. and consists of rows of gneiss and quartzite stelae of which many bear Kufic inscriptions (De Gironcourt 1920:34). In addition to the cemetery, De Gironcourt recorded the remains of a habitation site where today's village of Bentia is partly located, and strongly suggested it as the possible site of Koukiya (1920:34). The most recent study of Islamic funerary remains in the vicinity of Bentia was carried out by Paulo de Moraes Farias, from the Centre of West African Studies at the University of Birmingham (1995). Next to stelae from Issuk in Kidal and Gao, he inspected one that is located 10 km. to the northeast of Bentia. He concluded two possible dates for this stela: A.D. 1182 and A.D. 1201 (de Moraes Farias 1995:107).

This data as well as limited resources shaped the choice and size of the study area. The first step was to gather information on archaeological sites known by the inhabitants of Ansongo and Bentia, which helped us in selecting two transects that seemed the most promising for this investigation. Due to the fact that financial resources were limited as well as manpower, the survey had to be done by foot, by only myself and a colleague, Daouda Keita, from the Institut des Sciences Humaines. We were able to cover an area of 40 km^2 which was divided into two transects, each respectively situated to the northeast of modern settlements, the town of Ansongo (located 100 km. downstream of Gao) and the village of Bentia (Figure 1). Both are located within the dry Sahel zone, in which present day annual rainfall does not exceed 500 mm. (Vernet 1993:75). The vegetation is characterized by cram-cram grass, acacia type thorn trees and Doum palms. The annual Niger flood allows the cultivation of rice, millet, sorghum and groundnuts. Geomorphologically the area consists of a narrow strip of flood plain at the edges of the river, with

Figure 1. Location of 1996 survey.



fluvially modelled dunes adjacent to it and more distant fossil dunes. Relic river channels associated with levees run parallel to the modern river's course and wadis run from palaeodunes into the Niger.

The primary focus of this study was to obtain a variety of basic data on how sites vary with respect to size, surface features, artifacts, and location and finally to establish a broad chronology of site occupation with the help of surface collections of pottery and other material. Ceramic assemblages have been tentatively dated on the basis of comparison with dated assemblages from neighboring regions. In particular, the Ansongo and Bentia surface collection exhibits distinct similarities with pottery collected in the Ghourma Rharous region (McIntosh and McIntosh 1984) as well as with excavated material from Gao (Insoll 1996). For the Late Stone Age material I turned to Kevin MacDonald's (1996) investigations. In addition to the ceramic material, the use of associated artifacts, such as stone tools, slag and pipe fragments, provided further guidance in establishing a broad chronology for putative occupation periods.

For the analysis of ceramic assemblages the approach of attribute seriation has been chosen. This technique has been adopted by several scholars working in Mali as it tends to prevent the always present, and often neglected, variations in ceramic assemblages (McIntosh 1995). Assemblages have been classified into five preliminary groups, which are characterized as follows. (1) Period I (2nd/1st Millenium B.C.) (Figure 2): This earliest assemblage consists of mostly chaff tempered ware with inclusions of coarse sand; vessels are not slipped. The most often recurring decoration types are reminiscent of the Late Stone Age and earliest Iron Age ceramics in the southern Sahara and Sahel (Gaussen and Gaussen 1988; MacDonald 1994). They include stabbed comb impressions, simple twine roulettes, twisted cord roulettes, incised geometric patterns and cord wrapped stick decors. The presence of stone tools, such as ground stone axes and chipped stone tools occur with this assemblage. Sites probably dating to this period include AI-96, Kamgala and Djefilani Est.

(2) Period II (late 1st Millenium B.C./early 1st Millenium A.D.) (Figure 3): The most preferred temper remains chaff and coarse sand and only few traces of slip and burnish are yet visible. Many vessels seem to exhibit plain surfaces or simple twisted cord roulette decorations. Some vessels resemble the well-fired 'China ware' from Jenne-jeno, dated to Phase I/II (c. 250 B.C. - A.D. 350) (McIntosh 1995:33). They are a distinctive category of thin-walled pottery with a highly burnished finish. The only sites dating to this period are AVII-96, Sahidan Thakouaro and Sahidan Thakouaro Nordouest.

(3) Period III (early 1st Millenium A.D. to A.D. 1200) (Figures 4 and 5): Chaff temper prevails with grog inclusions, red slip becomes more common as well as painted motifs in red, black and white. They form either broad bands, dotted lines or more geometric motifs of crosshatch, again similar in appearance to the ones at Jenne-jeno, which have been dated to around A.D. 350 - A.D. 850 (McIntosh 1995:35). Bottlenecks appear for the first time, also recorded at Gao where they have been dated to Period 4 (late 9th to 11th century A.D.) (Insoll 1996:36). Everted rims often exhibit multiple channels and typical twine impressions on the lip, such as in the pottery of Tongo Maaré Diabal dated to the first millennium A.D. (MacDonald pers. comm.). The most often recurring decor types are linear and arched dragged comb, stabbed stylus impressions, dragged grass, and cord roulettes (such as a variety of twisted cord and cord-wrapped stick roulettes). Considerable amounts of slag and metal objects as well as surface features such as furnace remains occur with ceramics of this period. Sites dating to this period include Bato Hondia II, Djefilani, Tando Husubiya, Bentia Village, BIII-96, BIV-96, BV-96, BVI-96.

(4) Period IV (AD. 1200 - AD. 1600) (Figure 6): Red slip decreases and chaff temper persists. Carinated vessel shapes occur for the first time, exhibiting black and white paint in horizontal and vertical lines. Everted rims show channeling with cord roulettes (i.e.: both twisted cord and accordion pleat roulettes). Grass incisions and dragged combed impressions are visible on simple rims. Again, vast amounts of slag and numerous metal objects are further markers of this period. The presence of differently-shaped segmented clay beads, of which the same have been identified in excavated layers at Gao, dated to the clay beads, of which the same have been identified in excavated layers at Gao,dated to the late 9th to 11th centuries A.D., might be taken as additional diagnostics (Insoll 1996:36).

Figure 2. Characteristic rim types from Ansongo and Bentia: Period I (2nd/1st Millenium B.C.) a. simple rim with dragged comb impressions; b. everted rim with twisted cord roulette; c. simple rim with impressed cord wrapped stick decor; d. simple rim with dragged comb impressions and twisted cord roulette; e. simple rim with stabbed comb and dragged comb impressions.

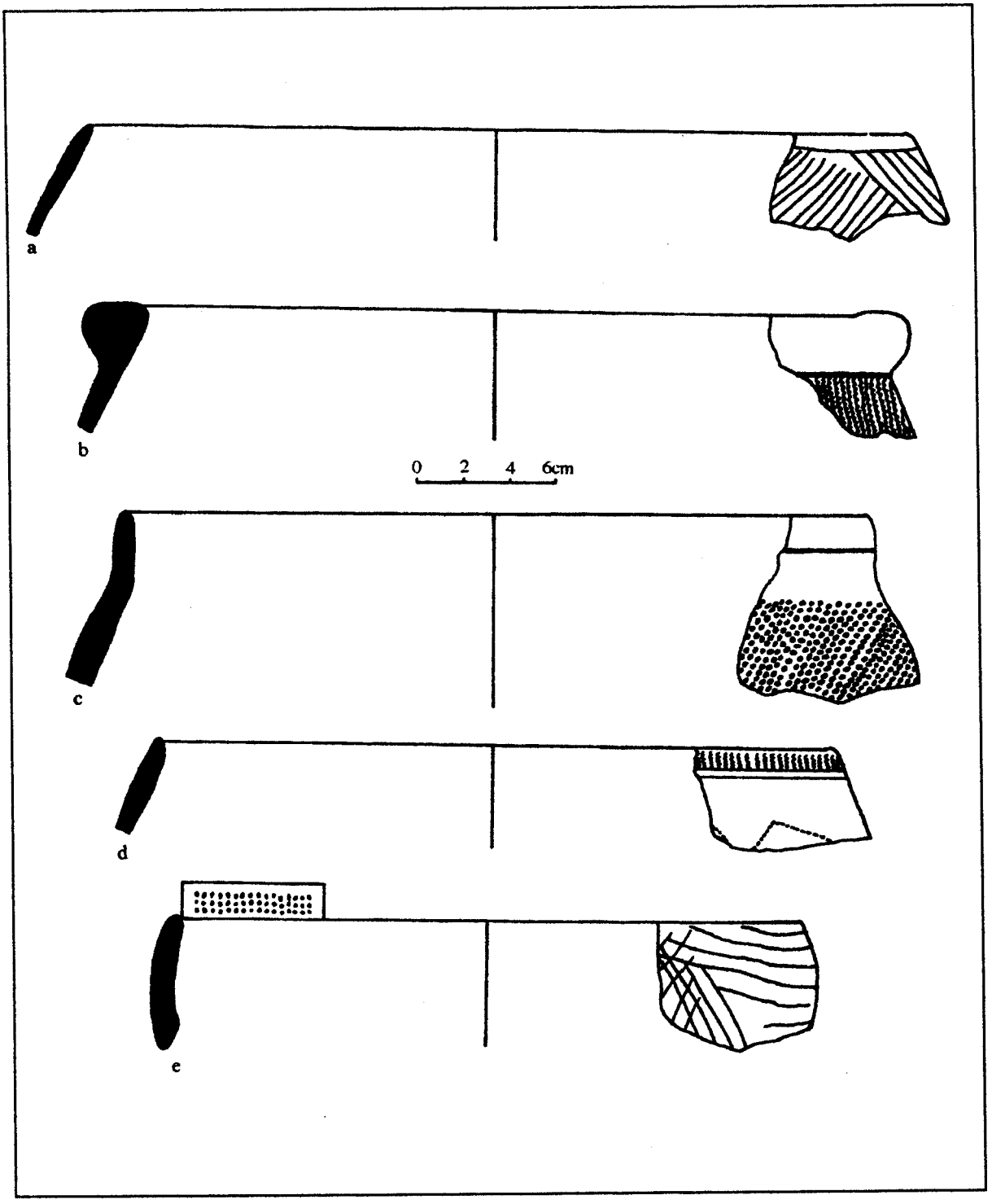
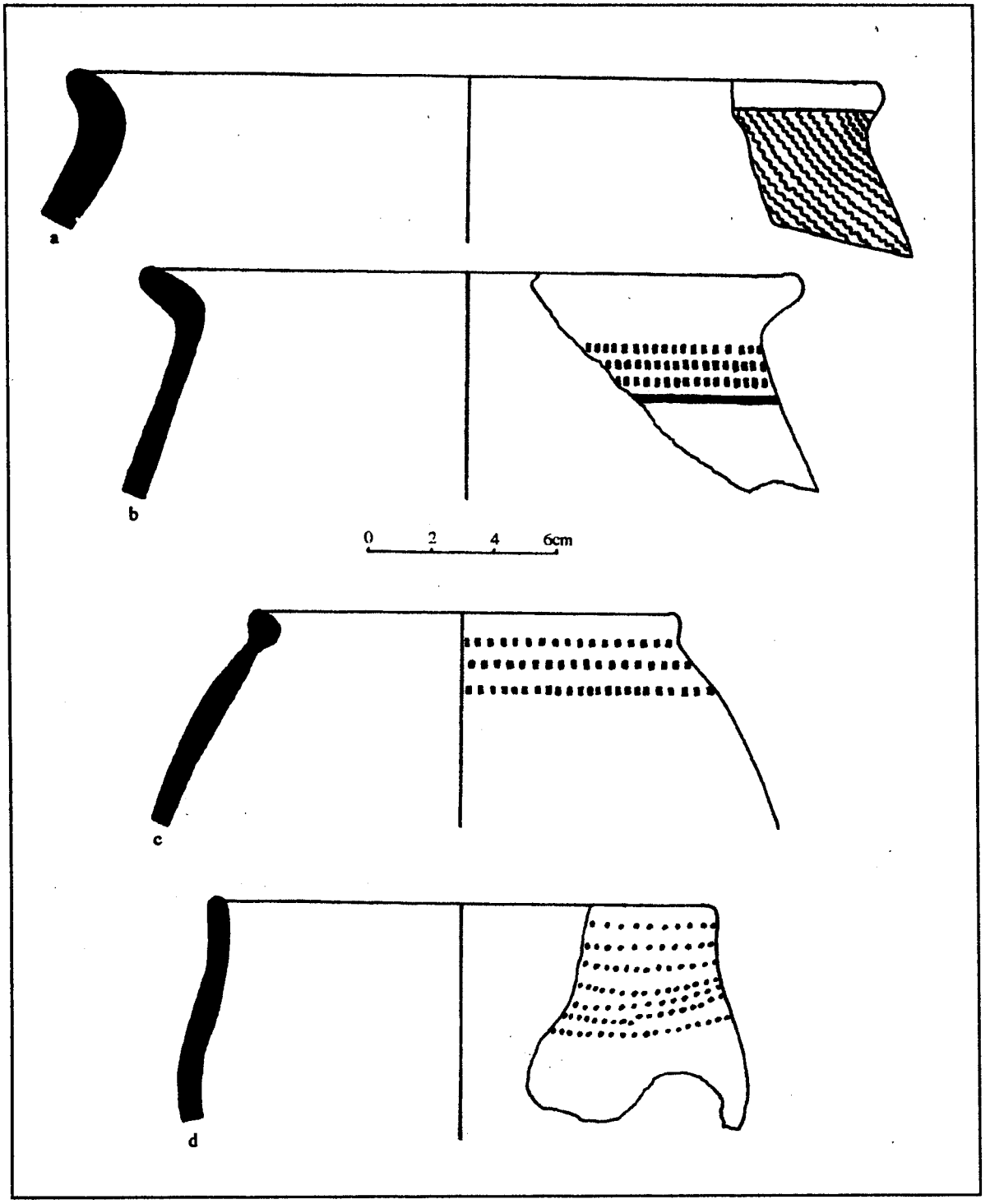


Figure 3. Characteristic rim types from Ansongo and Bentia: Period II (late 1st Millenium B.C./early 1st Millenium A.D.). a. everted rim with twisted cord roulette; b. everted rim with dragged stylus and impressed cord-wrapped cord; c. simple rim with stabbed comb decor; d. simple rim with stabbed comb decor.



The settlements of Bato Hondia I, Billimbiri Bero, Djira Hondia, BII-96, BVII-96, B VIII -96 .

(5) Period V (Historic occupation, A.D. 1600 onwards) (Figure 7): The island of Koukiya is the only site dating to this period due to the presence of several pipe fragments. Rim sherds show faint traces of red slip. Everted rims are characterized by plain decorations and dragged grass. Simple rims show applied fingertip decorations, simple twisted cord roulettes and rectangular stabbed stylus decors applied in single rows. Pipe fragments found on the island are further indicators for this period as tobacco was only imported to West Africa after A.D. 1591 (McIntosh 1984).

Ansongo Survey Results

The first portion of the survey covered a 25 km^2 transect at the northeastern edge of Ansongo in which 11 sites were recorded. Two additional sites, which are located 3 km. to the south of this transect shown to us by our informants, were included in this investigation due to their prominent size and richness in surface material and surface features.

Period I ($2^{nd}/1^{st}$ Millenium B.C.): AI-96 and Djefilani Est are the only sites dating to this period. Djefilani Est is situated 3 km. south of the transect next to the National Road leading to Niamey (Niger). It is located on top of what seems to be a remodeled dune, only a small distance away from the actual flood plain area bordering the Niger. It measures 21 ha. in size, and is with Djefilani the largest site within this survey area. Its location on top of a remodeled dune, has resulted in considerable accumulations of a sandy-loam matrix as well as in the formation of deep run-off channels caused by the rains. Archaeological surface materials include less pottery, in contrast to a considerable amount of lithic material (Figures 8a and b). Grindstones, bones, and stone bracelets (Figure 9) can also be found. Structural remains are visible in the form of tumuli. Similar structures have been recorded elsewhere in arid West Africa (i.e. Paris 1996). These are mainly located in the southern and southeastern part of the site. There seem to be two types, flat stone circles formed by boulders (1.5 and 2.5 m in diameter) and demonstrably more recent tombs typical of the Islamic period, characterized by one prominent stone put vertically into the ground pointing east.

AI-96 is not located on top of a dune but in the plain between the dunes. It exhibits a light surface scatter of pottery and lithic remains with no visible structural features, covering an area of 3 ha. in size. Due to its limited size and material culture it might be suggested that AI-96 was used as a temporary place for manufacturing stone tools.

Period II (late 1st Millenium B.C./early 1st Millenium A.D.): AVII-96 is the only settlement, which exhibits ceramics diagnostic of this period. It is located at a distance of around 5 km. eastwards and 1 km. northwards of point 0 (Ansongo's telephone antenna) on top of a dune. Surface material, cover an area of 4 ha. and mainly exhibit pottery and stone toots. One metal object (a 'pin') has been identified. Due to the fact that no surface features are visible and artifacts are in few number, AVII-96 might have been a temporary settlement.

Period III (early 1st Millenium A.D. to A.D. 1200): Bato Hondia II and Djefilani may be grouped into this period. Bato Hondia II is situated around 2 km. northeast of point 0, on top a remodeled dune, with artifact scatter covering 16 ha. Surface artifacts include pottery, grindstones, human and animal remains and slag. Additionally, one can identify the remains of granary foundations. They are characterized by boulders laid out in circular shapes (a tradition one can still observe in contemporary settlements of this region).

Djefilani is situated just opposite Djefilani Est at the other side of the National Road. It is located on top of a remodeled dune within the flood plain bordering the Niger, and covers an area of 21 ha. Its surface is littered with artifacts such as pottery, slag, grindstones and other stone implements, as well as human bones. Surface features are also numerous including tombs characterized by flat circles of boulders, exhibiting a cruciform shaped inner division or two parallel lines (max. diameter of 2 m). Another form of interment visible at Djefilani are urn burials reminiscent of the Inland Niger Delta. They exhibit rims of 'man-sized' pots usually vertically-positioned into the soil containing primary and secondary burials (McIntosh 1995:45). At the northern base of Djefilani one can find the remains of seven furnaces and corresponding slag material. The furnaces show circles of slag eroding from the ground (presumably furnace bases) which are ca. 50 cm. in diameter. No other

Figure 4. Characteristic rim types from Ansongo: Period III (early 1st Millenium A.D. .to A.D. 1200). a. simple rim with multiple channels and twisted cord roulettes; b. everted rim with multiple channels on the lip and impressed cord-wrapped stick; c. everted rim with multiple channels on the lip stabbed stylus impressions and twisted cord roulettes; d. everted rim with multiple channels on the lip and dragged stylus and impressed cordwrapped stick; e. bottleneck with twisted cord roulette; f. bottleneck with multiple channels.

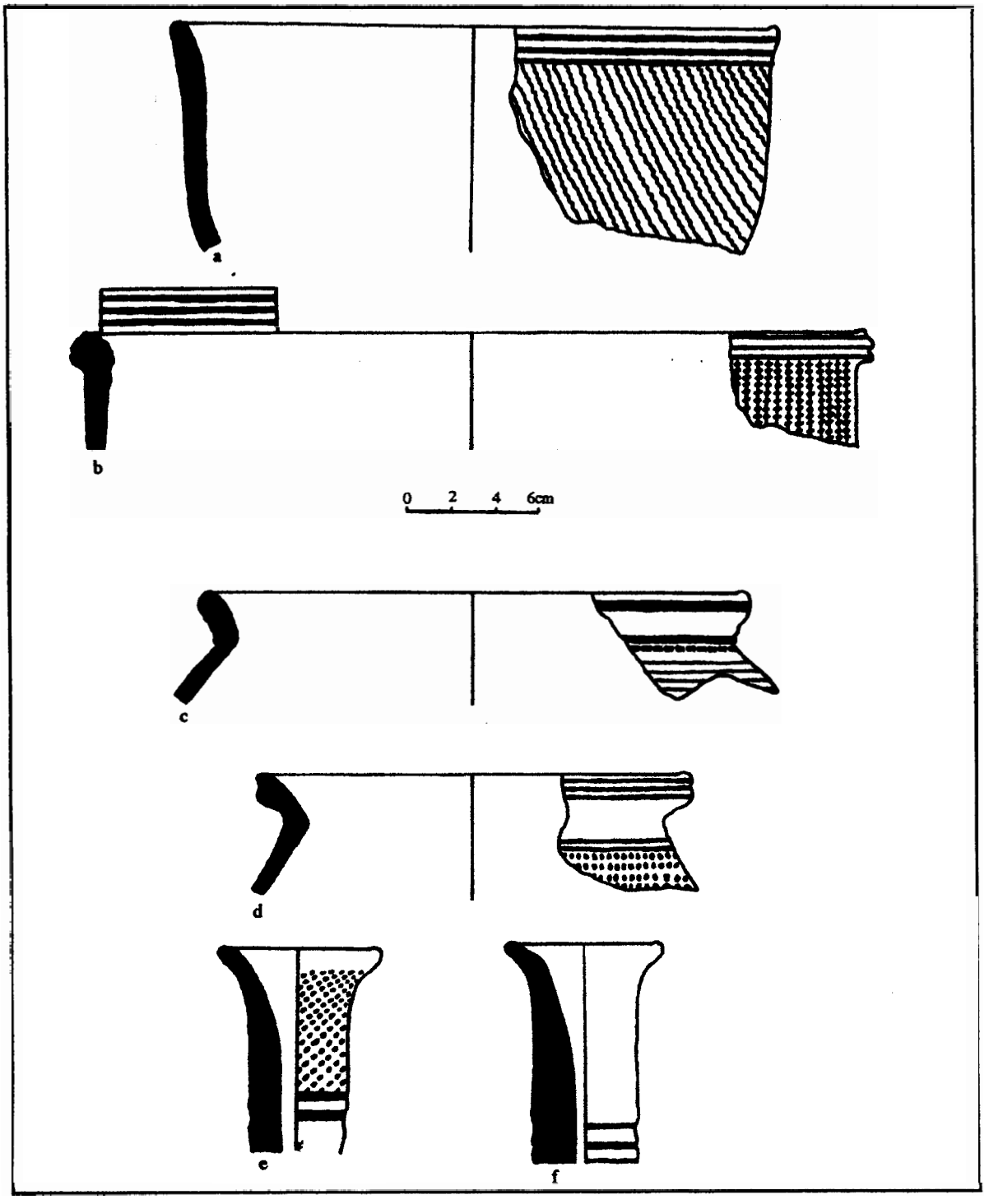


Figure 5. Characteristic rim types from Bentia: Period III (early 1st Millenium A.D.-A.D. 1200). a. simple rim with dragged grass and stylus decor; b. simple rim with multiple channels and white paint; c. everted rim with multiple channels on the lip and upper body stabbed comb and twisted cord roulettes; e. plain bottle-neck; d. bottleneck with multiple channels twisted cord roulettes and black paint.

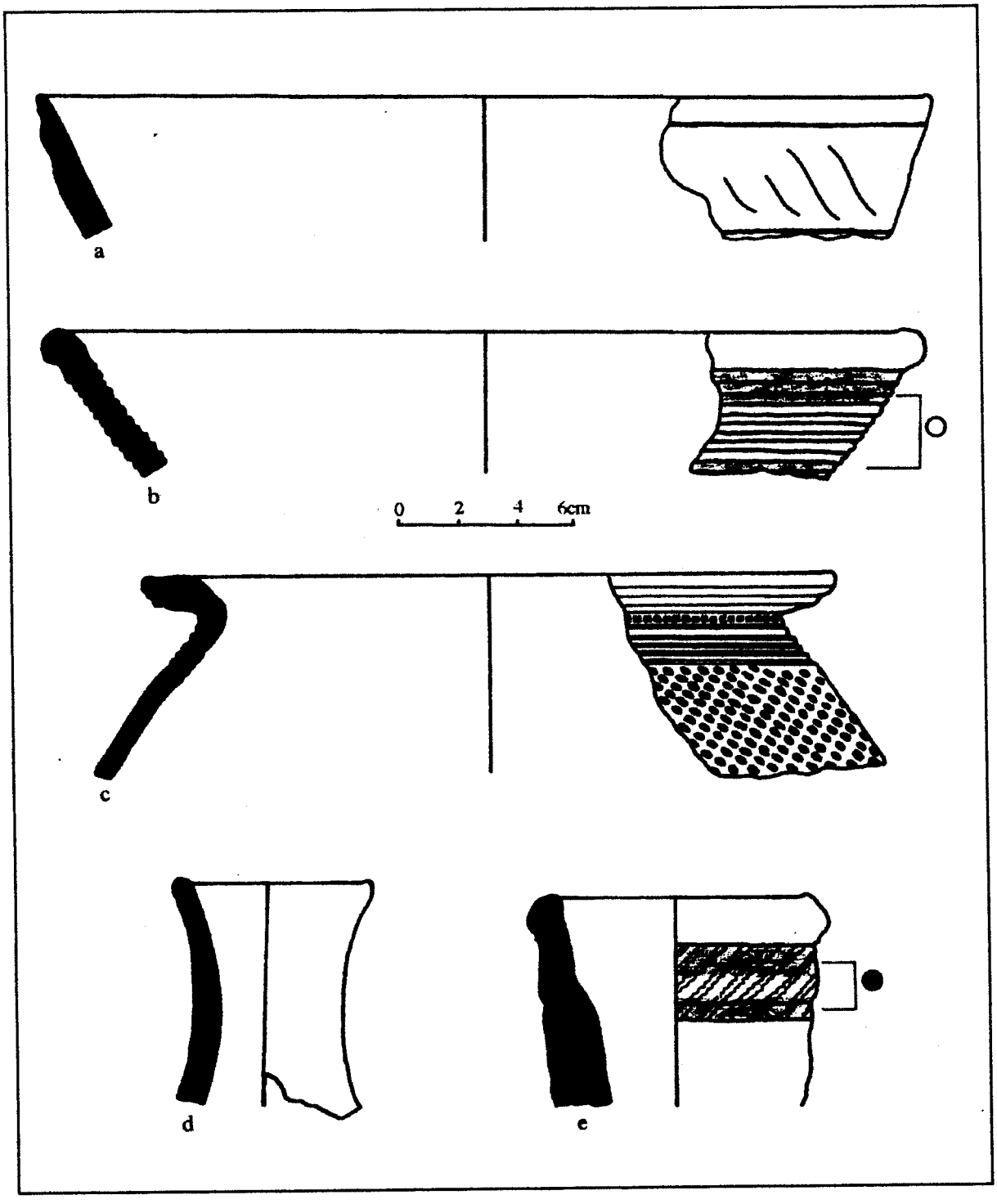


Figure 6. Characteristic rim types from Ansongo and Bentia: Period IV (A.D. 1200 to A.D.1600) a. everted rim with carination and black paint in horizontal and vertical lines; b. simple rim with dragged grass and impressed cord-wrapped stick; c. everted rim with a single channel on the lip and matt impressions; d. everted rim with multiple channels on the lip and matt impressions.

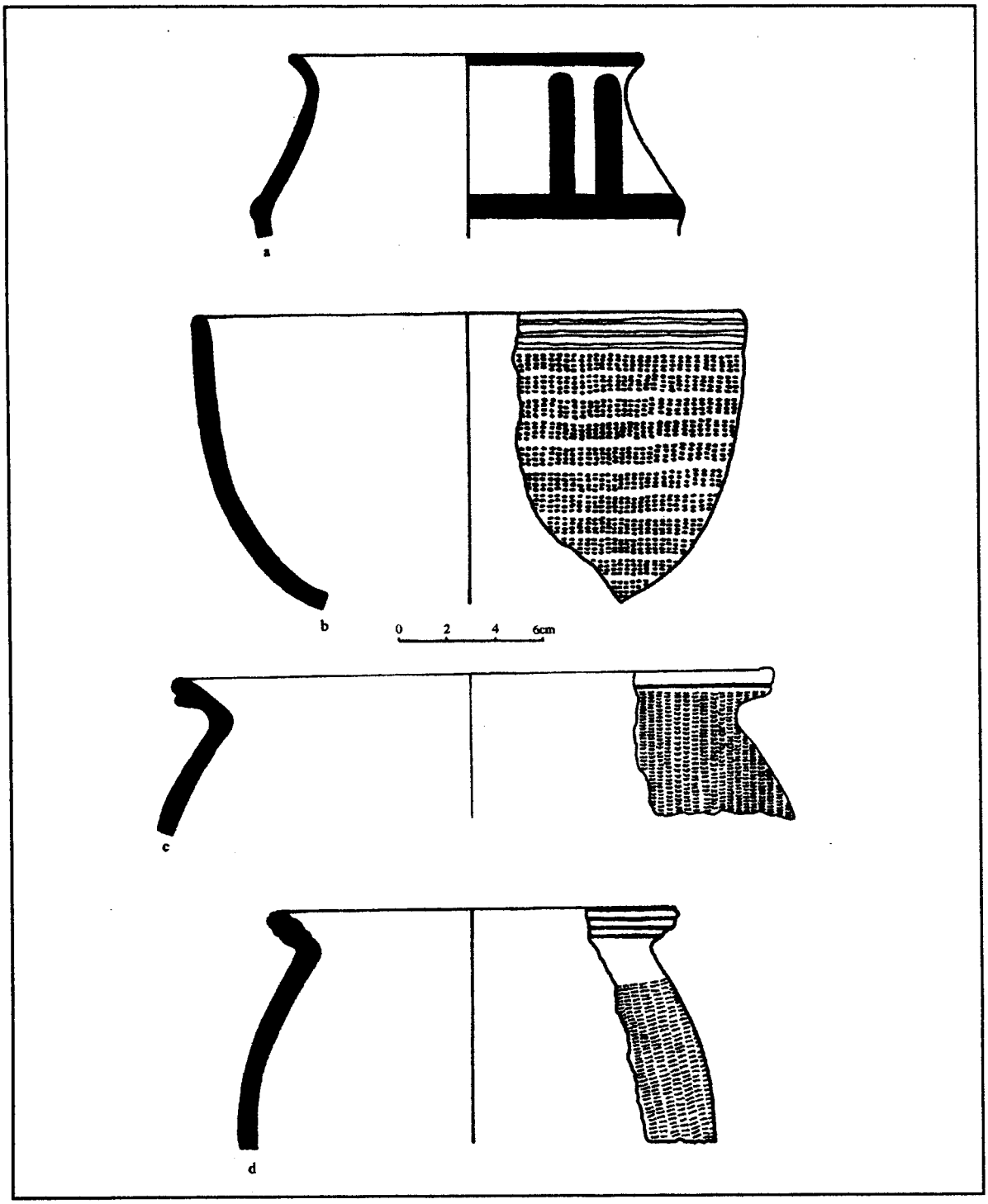


Figure 7. Characteristic rim types from Bentia: Period V (Historic, A.D. 1600 onwards) a. everted rim with nubbin; b. everted rim with dragged grass decor; c. and d. simple rims with mat impressions.

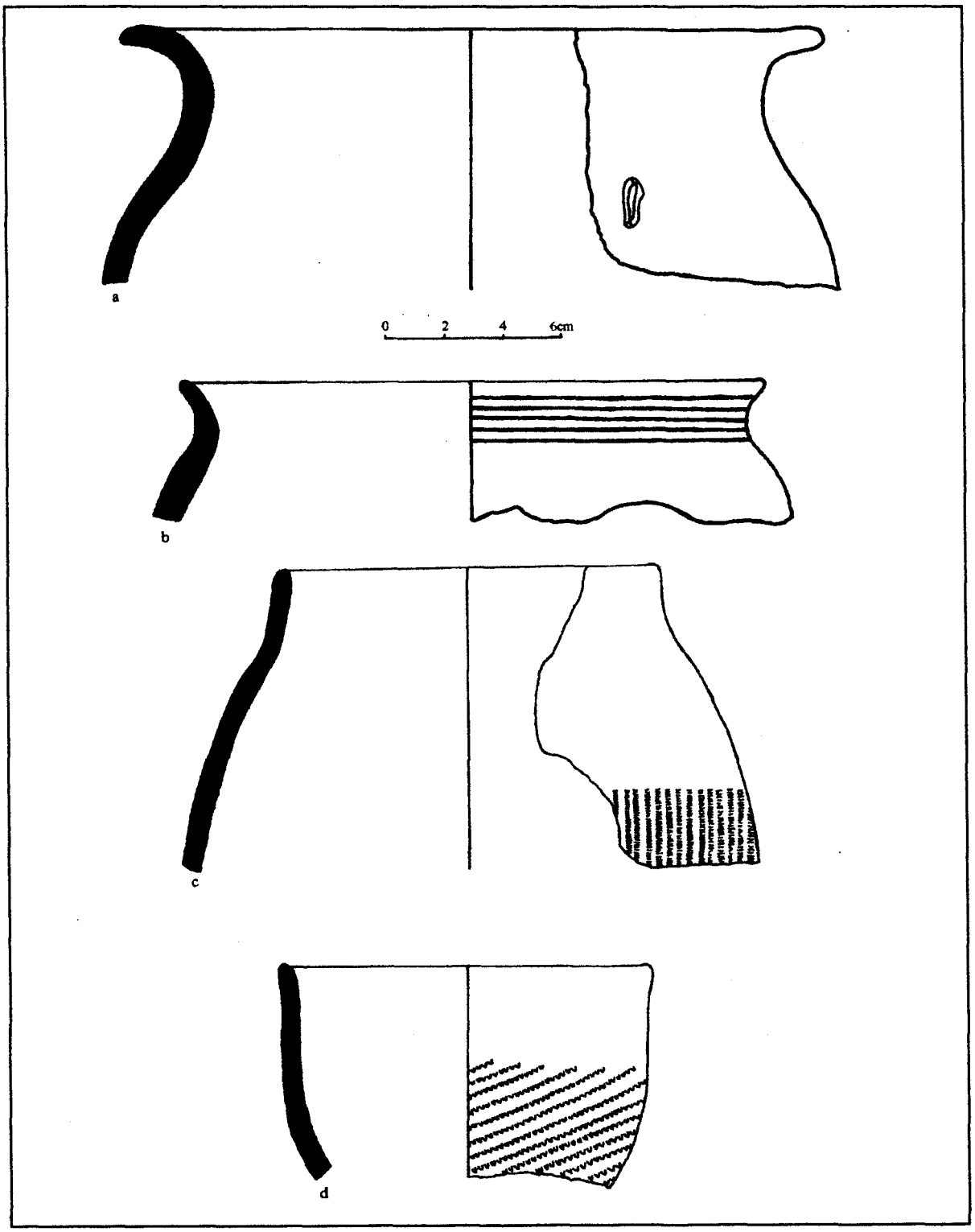


Figure 8. a. Scraper and b. Bifacial Point from Djefilani Est.

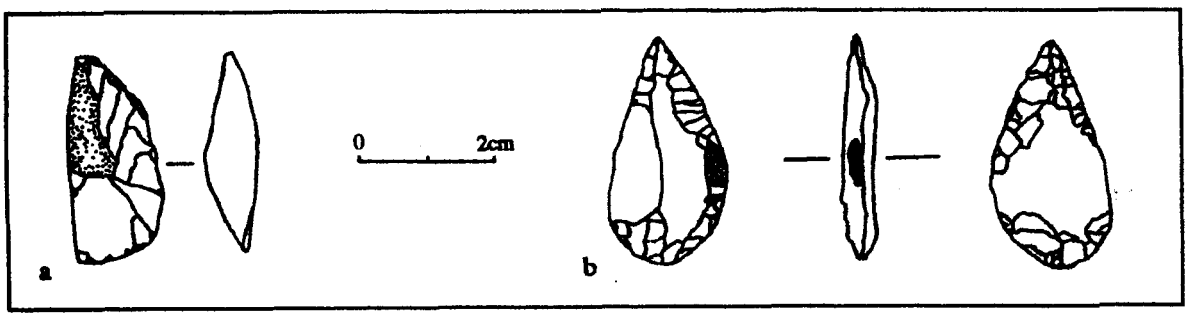
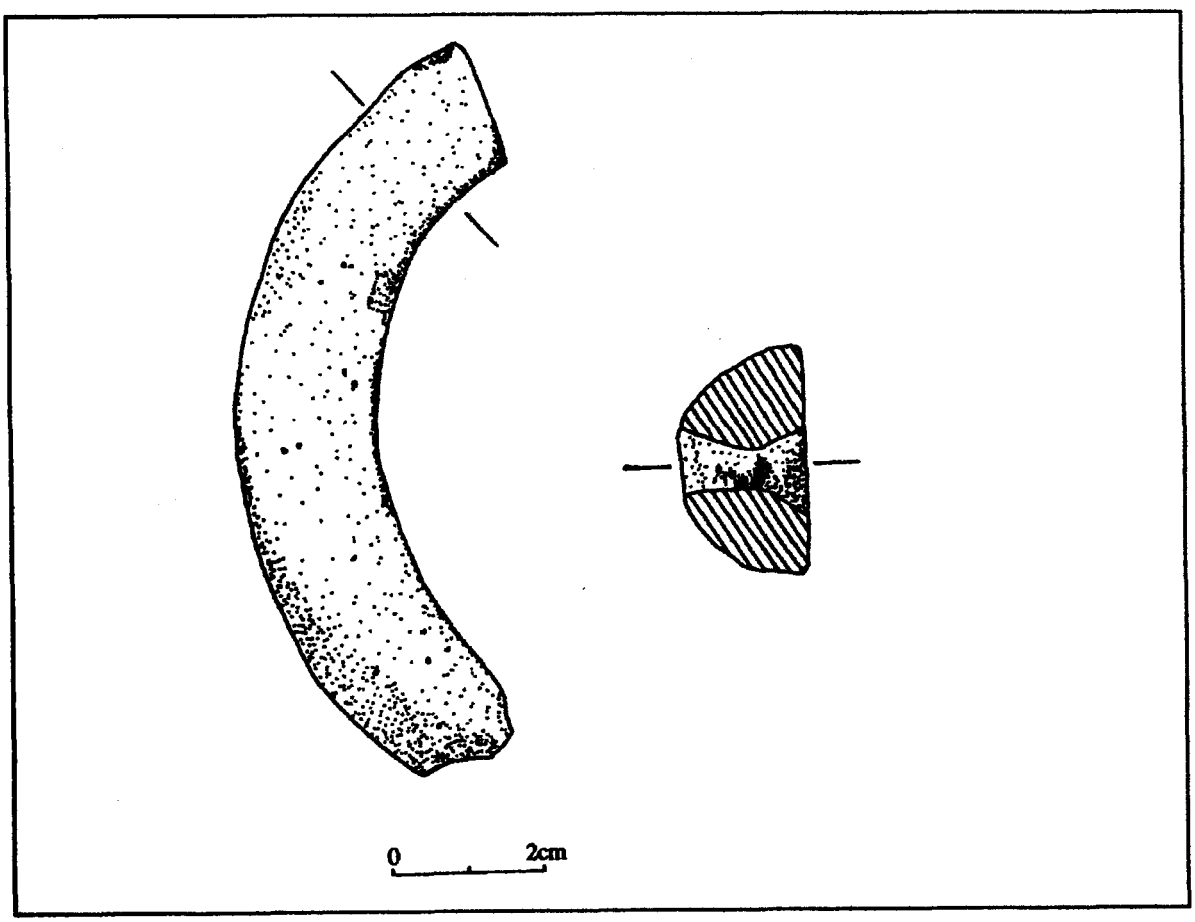


Figure 9. Stone Bracelet from Djefilani Est.



surface material is associated with this area. Djefilani's size and diversity of material culture as well as its furnaces might be taken as indicators of permanent habitation.

Period IV (AD.1200 - AD.1600): Sites dating to this period include Bato Hondia I and Djira Hondia. Bato Hondia I is located around 500 m south of Bato Hondia II and is halfway buried underneath the modern village of Badii Haoussa. An area of only 17 ha. is exposed, considering the substantial portion, which is covered by the modern village. Its location on top of a remodeled dune next to the contemporary village might have led to the mixture of ancient and modern surface material.

Next to the usual artifacts such as pottery, slag and metal objects one can see left- avers of disintegrating cattle, tins, shoes and clothes, bottle sherds and cooking pots.

Djira Hondia is located around 1.6 km. northeast of Ansongo on top of a remodeled dune, covering an area of 13 ha. Due to its closeness to town and to the village of Badji Haoussa its southern end is used as a contemporary cemetery. Surface artifacts seem very scattered which might be due to the rains that caused the formation of deep run-off channels. Materials include few pottery, stone tools (that might attest to a long occupation sequence), and slag.

Period V (Historic occupation, A.D.1600 onwards): Sites dating to this period only include Fakou Hondia. It is situated on top of a dune some 2.8 km. northeast of Ansongo covering an area less than the in size. It does not show any evidence of domestic architecture. Instead it exhibits a mosque, consisting of two distinct areas encircled by large boulders. It bears two entrances on its southwestern and northwestern side. A prominent capstone indicates the eastern direction of Mecca. No surface material has been associated with this structure.

There are also sites that cannot be grouped into periods due to their lack of associated surface remains. An interesting fact is that all these sites are located in interdunal depressions. Three of these sites (AII-96 > 1 ha., AV-96 17 ha. and AVI-96 3.5 ha.) are iron production localities including evidence such as low slag heaps, tuyère fragments and the stubs of several furnace shafts protruding through the soil. Due to the limited amount of furnace remains present, a maximum of seven at the site of A VI-96, iron production does not seem to have been on an industrial scale. Their location, away from habitation sites, confirm iron production as a confined and discrete activity as was the case historically throughout much of West Africa. AIII-96 and AIV-96 remain enigmatic in their function due to the fact that surface material is restricted to linear rows of boulders with no other visible associated artifacts.

Bentia Survey Results

The second phase of this survey was carried out in a 15 km^2 transect in the northeastern fringes of Bentia, the village associated with the founding of the Songhay dynasty; 16 sites were identified of which two types emerged, habitation sites and Islamic necropoli.

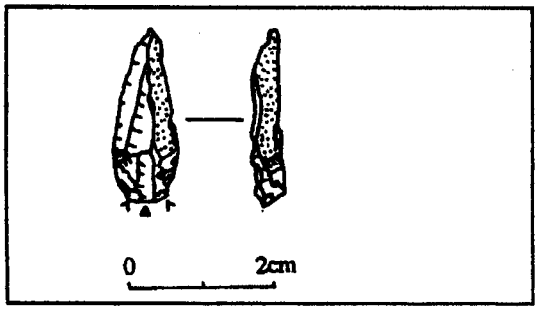
Period I (2nd/1st Millenium B.C.): Kamgala is the only site in the Bentia survey region dating to this period. It is located around 3 km. northeast of the village's mosque, which we haven chosen as our point of reference. Kamgala covers an area of 2 ha. in the midst of a millet field, on top of, which looked like a degraded dune field. Its surface remains mainly consist of lithic material (Figure 10) and few diagnostic potsherds. One biconically perforated quartz bead, typical of the LSA, provided additional evidence for the broad occupation period of Kamgala. In the northern part of the site one can identify bone remains protruding from the soil.

Period II (late 1st Millenium B.C./early 1st Millenium A.D.): Sites dating to this period include Sahidan Thakouaro (which can be translated as 'Hill of Stones') and Sahidan Thakouaro Nordouest. Sahidan Thakouaro can be found around 4 km. northeast of point 0 and exhibits all characteristics of a tell site located on a fossil dune. Substantial amounts of pottery are spread over an area of 25 ha. Other surface material includes lithics, slag, metal fragments and numerous beads, of which 50 were recorded. Surface features are visible in the form of granary-foundations, exhibiting diameters of max. 180 cm. The diversity of surface artifacts and the steepness of its tell formation might be taken as indicators for a long-term occupation, spanning over several distinct periods, but including some occupation during Period II. At the northeastern foot of the Sahidan Thakouaro there is located Sahidan Thakouaro Nordouest, covering an area of 2 ha. in size. Surface artifacts include pottery, bone remains, metal fragments and slag. In the southeastern quadrant there are remains of tuyères associated with one furnace.

Period III (early 1st Millenium A.D. - A.D. 1200): This seems to have been the most prolific settlement period within this survey area as six out of nineteen sites date to this time, including Tando Husubiya, Bentia Village, BIII-96, BIV-96, BV-96 and BVI-96.

Tando Husubiya occupies an area of 18 ha. around 1.4 km. northwest of Bentia's mosque. It

Figure 10. Unifacial Point from Kamgala.

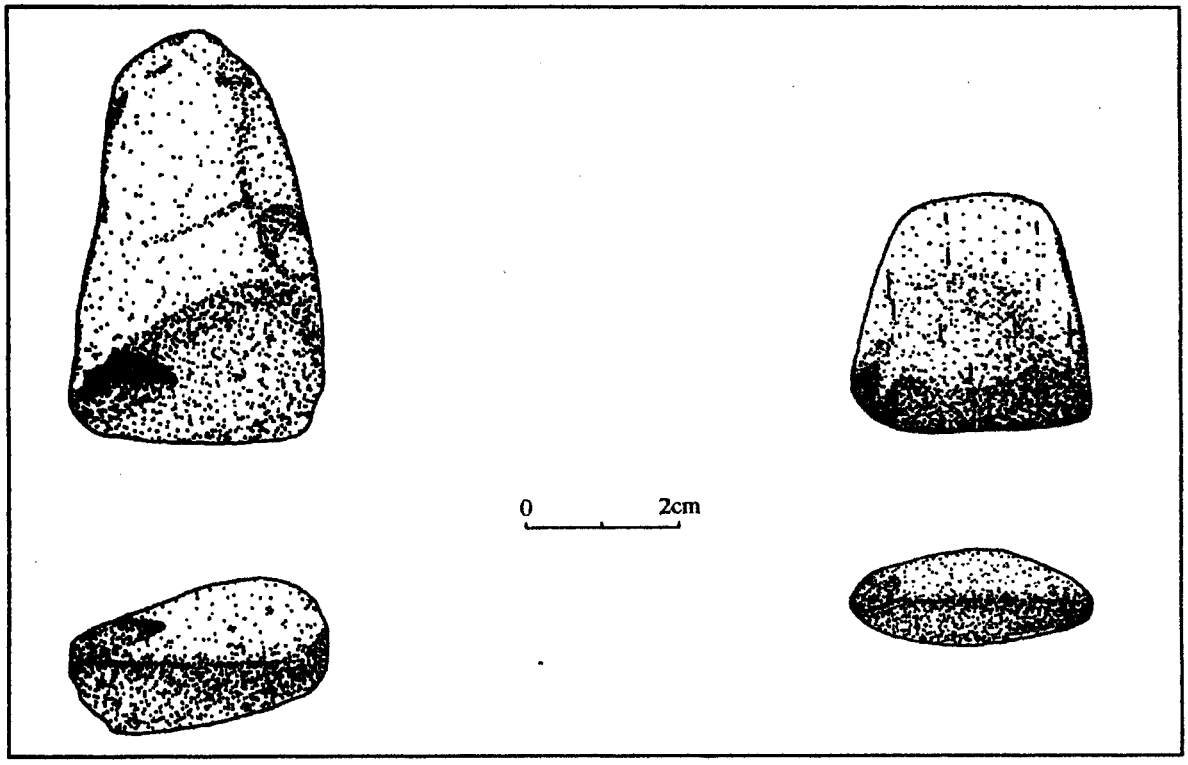


features a rock-formation on top of a dune at its northwestern end and millet fields to the south. Within the latter part of the site one can identify a light scatter of surface material such as pottery, beads, slag and metal. The eastern part of Tando Husubiya appears to have been a cemetery with many skeletons eroding from the ground. They are oriented north-south in extended postures. The northwestern part mostly yields lithic material, with pottery being the most common artifact towards the center. Due to the presence of lithic material Tando Husubiya might have been already inhabited during earlier periods, although there is no pottery evidence to this effect.

The site of Bentia Village lies halfway buried underneath the contemporary village of Bentia. Surface artifacts cover an area of 33 ha., but the true extent of this site must be at least double the size. Although Bentia Village yielded mostly pottery dating to Period III, it might have already been occupied during former times due to the fact that lithic material as well as a bifacial projected point were identified on its surface. Not one surface feature was identified, which might be the result of erosional processes visible all over the site.

BIII-96 is located 2.2 km. northeast of Bentia's mosque on top of a dune with its eastern half occupied by a millet field. It covers an area of 2 ha. in size. Surface artifacts seem very scattered and mainly consist of pottery and slag. The only features are nine small capstones (30 cm. high, 20 cm. wide) occupying the central part of the site, with human bone remains nearby. This may be a fairly recent cemetery intrusive on an older site.

Figure 11. Hachettes from BVI-96.



BIV-96 measures 1 ha., and is located 2 km. northeast of our reference point. BV96 (>1 ha.) is located 600 m to the southeast of BIV-96. Both sites are situated on top of dunes, exhibiting few pottery and slag fragments.

BVI-96 lies at a distance of 3 km. northeast of Bentia. It occupies a dune and its base to the south and southeast, covering an area of 9 ha. Surface collected pottery is characteristic of Period III. However, lithic material (Figure 11) located in the southern part occupying the dune-top points to the possibility of a long sequence of occupation. The southern part is littered with slag with the remains of one furnace and tuyères in its northwestern quadrant. Pottery as well as lithic material can be found to the west of the smelting area.

Period IV (A.D.1200 - A.D.1600): Sites such as Bilimbiri Bero, BII-96, BVII-96 and BVIII-96 date to this period. Bilimbiri Bero was the largest site identified on this survey, measuring a total of 80 ha. It occupies what seem to be three or four dunes characterized by a depression at its centre exhibiting a millet field. It lies around 300 m to the west of BVI-96. Surface features include a total of 53 granary foundations, which are mostly located in the northwestern and southeastern quarters of the site. Two graves, in the form of tumuli, are situated in the northwest. One measures 10 m in length, the other 4 m. Other structural features include several stone heaps of unknown function and linear rows of boulders (max. 4 m in length). Surface artifacts mainly consist of pottery and slag remains. In addition, one grindstone and a few bone and metal fragments were identified. Another class of important surface artifacts are beads, of which 205 pieces were collected in total. They include glass and semi-precious stone beads as well as segmented ceramic clay beads. Due to the fact that the same classes of beads have been identified further upstream at Gao (Insoll 1996:82), inter-regional trade links might be suggested. Gao is believed to have been a manufacturing place as well as a trade entrepÙt for certain carnelian beads, blue glass and segmented clay beads (Insoll 1996:82), exchanging these goods and other as yet unknown materials with ivory from Igbo-Ukwu in Nigeria (Insoll and Shaw 1997: 15). Hence it might be stated that the Bentia region with the site of Bilimbiri Bero in particular constituted an important trade link between Gao to the north and Igbo-Ukwu to the south.

BII-96 is located 3.5 km. northeast of point 0, again on top of a dune which is surrounded by millet fields. It covers an area of 2 ha. in size, mostly exhibiting pottery, few metal fragments and beads. Remains of human skeletons are visible eroding from the surface. Three granary foundations are visible in the easternmost part of the site.

BVII-96 is located around 180 m to the west of Bilimbiri Bero, occupying an area of 31 ha. in the plain. The site exhibits slight elevations in the north, west and southwest, where most of the archaeological material is concentrated. A mosque (3.30 m in diameter), characterized by boulders forming a circle with one prominent capstone pointing east, is located in the north. The eastern part of the site exhibits faint traces of three furnace remains with a concentration of slag south of it. The center is mostly made up of pottery, where we also identified one hachette (Figure 12). The southern part of BVII-96 has granary foundations and two grindstones positioned vertically into the ground. A tumulus, 80 cm. in diameter, consisting of stones and pottery was also recorded.

BVIII-96, situated 2.6 km. northeast of Bentia, is located on top of a dune, covering an area 17 ha. in size. Surface artifacts mainly consist of pottery, bones, slag, few beads and metal fragments. The northeastern half of BVIII-96 is occupied by a stone tomb, which forms a circle (1.5 m in diameter) that is divided on its interior by a cross shaped stone alignment. The remains of at least six granaries are also visible.

Three necropoli bearing Arabic inscribed tombstones are also included here since one of them was dated to this period. This site-type is invariably located in between relic dunes. The largest, measuring 15 ha., is Alwalidjey Sud, situated some 500 m to the east of Bentia, which might be identified with the Islamic 'Necropole de Bentia' which De Gironcourt recorded. Houdas dated this cemetery to the 14th-15th century A.D. by using De Gironcourt's (1920:34) estampages of the Kufic inscriptions taken from the gneiss and quartzite stelae oriented in a north-south direction. It is important to mention that this striking historical site is seriously threatened by looting activities evidenced by a considerable amount of hollow traces of torn-out stelae. The cemeteries of Alwalidjoy and Alwalidjey Nord are situated respectively around 1.5 km. and 2.5 km.

northeast of Bentia. Alwalidjey Nord, less than 1 ha. in size, bears ten tombstones vertically set into the ground similar to the Bentia necropolis, however, only one bears inscriptions. Alwalidjey exhibits 27 tombstones in an area of 2 ha. of which 14 showed eroded traces of Arabic inscriptions. No surface material could be associated with the necropoli.

Period V (Historic occupation, A.D. 1600): The only habitation site associated with this period is 'l'île de Koukiya', which is an island 3 ha. in size, located on an islet in the Niger River across from the modern village. Bentia's inhabitants claim this island to be the site of the legendary Koukiya from the Ta'rik as Sudan. Within its limited space the vestiges of the last village, supposedly abandoned during the 1950s, are clearly visible. They include a mosque, a single compound, tombs and graineries. Surface collected material consisted of pottery, beads, stone bracelets, axes, spindle whorls and tobacco pipe fragments. Due to its limited size the islet of Koukiya could not have sustained more than two extended families and might thus only be seen as a symbolic location for Songhay origins.

What initial conclusions can be drawn from the rich data collected in the region south of the Niger Bend? What does it say of the late prehistoric and early historic periods, which are believed to have witnessed significant trading activities along the river and the emergence of the first Songhay dynasty? An important observation is that human occupation in this region has been continuous since the 2nd Millenium B.C. The Niger river and its tributaries would have had an important part to play as agricultural food production has been particularly favorable along its floodplains as well as facilitating the ability to move at relative ease and thus contributing to the interaction between its diverse inhabitants on a social as well as an economic basis.

The most impressive evidence brought forward by this preliminary survey is a pattern potentially indicative of urban developments. Due to the fact that no excavation data was collected this investigation has focused on the actual site size in order to distinguish urban versus rural settlements. The following tentative category of site size hierarchy can be proposed for the Ansongo and Bentia study zone: Sites ranging between 30 and 80 ha. may be comparable to known prehistoric 'cities' such as Jenne-jeno (33 ha) (McIntosh and McIntosh 1993). Sites of between 10 to 25 ha. form an intermediate category, and communities of less than 1 ha. to 10 ha. are either satellites of larger settlements or villages and hamlets. Following these tentative thresholds of site sizes, Ansongo does not seem to exhibit any in the putative urban category since the largest sites, Djefilani and Djefilani Est, only measure up to 21 ha. It remains likely that we are dealing here with only 'large villages'. Bentia, in contrast, exhibits three sites that are quite impressive in size, Bilimbiri Bero (80 ha), Bentia Village (33 ha), and BVII-96 (31 ha).

Also, due to the presence of urban sites in conjunction with intermediate and rural settlements Bentia exhibits a particular phenomenon of settlement pattern, which has been termed 'urban clustering' (McIntosh 1991) (Figure 13). This form of

Figure 12. Hachette from BVII-96.

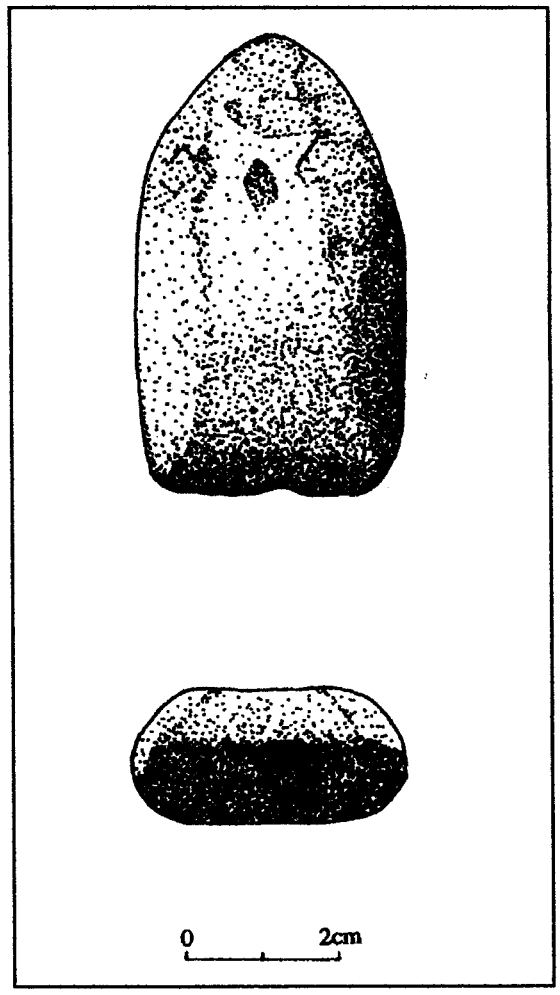
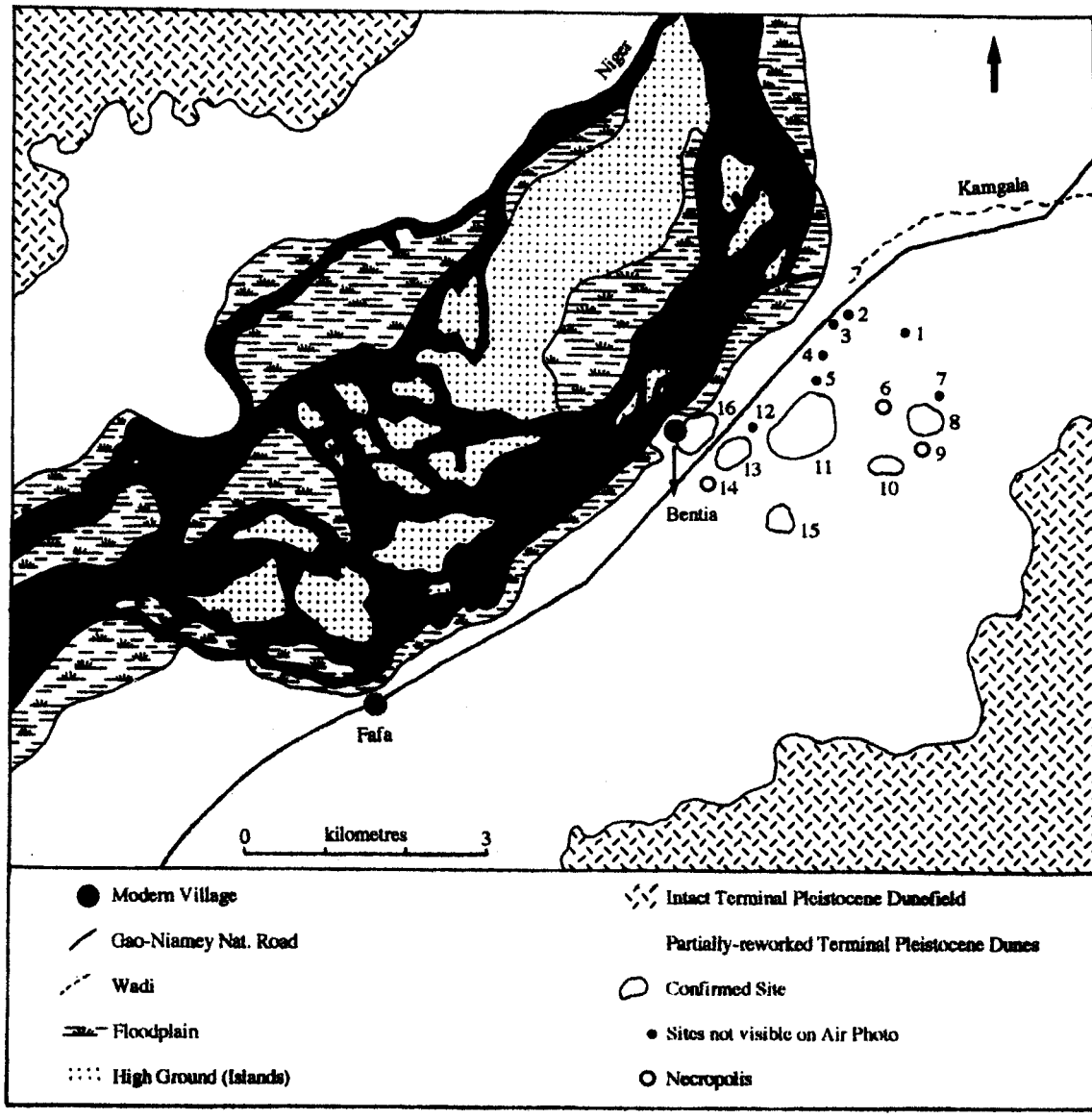


Figure 13. Bentia Survey region showing landforms and sites. 1. BI-96. 2. BII-96. 3. Kamgala. 4. BIII-96. 5. BIV-96. 6. Alwalidjoy. 7.Sahidan Thakouaro Nordouest. 8.Sahidan Thakouaro. 9. Alwalidjey Nord. 10. BVIII-96. 11. Bilimbiri Bero. 12. BVI-96. 13. BVII-96. 14. Alwalidjey Sud. 15.Tando Husubiya. 16. Bentia Village. The smallest of the three islands facing Bentia is Koukiya.



spatial patterning can be found in regions as diverse as the Méma (located northwest of the Inland Niger Delta) (Togola 1996) and the Upper Inland Niger Delta around Dia and Jenny (McIntosh 1991, 1998). These spatial patterns are believed to be characteristic of the beginnings of urbanism (McIntosh 1991:199), which sees the development of a central site within a network of smaller communities, all simultaneously occupied in close proximity, providing various services to its hinterland. Alternative patterns might be groupings of equally sized sites, or a constellation of several small sites with no apparent dominant site (Togola 1996:103).

The settlement of Bentia Village (33 ha) seems to have constituted the central site during Period III (late 1st Millenium B.C.-1200 A.D.). The large intermediary sites of Sahidan Thakouaro (25 ha) and Tando Husubiya (18 ha) were occupied

ha) and Tando Husubiya (18 ha) were occupied during the same period as well as the rural sites of BIII-96 (2 ha), BIV-96 (1 ha), and BVI-96 (9 ha). During Period IV (1st Millenium A.D.-16th century A.D.) Bilimbiri Bero (80 ha) might have formed the most prominent settlement in Bentia, with two secondary centers at the site of B VII-96 (31 ha) and BVIII-96 (31 ha). Two rural sites, BI-96 (3 ha) and BII-96 (2 ha) also date to this Period IV. As a consequence it can be stated that the tentative results from the Bentia study zone indicate a pattern in settlement potentially indicative of urban beginnings. Indeed, Period III (early 1st Millenium A.D. - A.D. 1200) is characterized by one central site within a network of smaller communities and Period IV (A.D. 1200 - A.D. 1600) might even have witnessed the occupation of two urban centers within a network of smaller sites.

The 1996 preliminary survey in the region south of the Niger Bend has produced exciting results for the late prehistoric and early historic periods, which have been the focus of this study. A previously archaeologically unknown area has not only attested human occupation going as far back as the 2nd Millenium A.D., but potential evidence for early urban centers has been brought forward. Prestige goods in the form of glass and semi-precious stone beads indicate inter-regional and long-distance trade with centers such as Gao further upstream and Igbo-Ukwu in Nigeria (Insoll and Shaw 1997). Specialized functions are best attested by the iron production sites adjacent to the habitation settlements. Islamic necropolises with Arabic inscribed tombstones point to the fact that a small Muslim community was already settled in this area during the 12th and 15th centuries A.D., which confirms the region's status as a trading entrepÙt between lands to the north and the south. Another point worth mentioning here is that the Arab chronicles, which date from the 9th century A.D. onwards, mention that Bentia/Koukiya was inhabited by a Songhay dynasty long before the shift of capital northwards to Gao was effected. The archaeological data seems to corroborate this view since the site of Bentia Village (33 ha. in size), which might tentatively be identified with the Koukiya from the historical records, has been occupied from at least the beginning of the 1st Millenium A.D. onwards. On the other hand human occupation at the site of Gao seems to have started in the late 6th century A.D. (Insoll 1996).

As promising as these results might be further investigations of much greater detail are needed. The phenomenon of urban clustering can only be understood by extending the survey area and by focusing on the retrieval of geomorphological data which is vital to our understanding why particular landforms were chosen for habitation. Another imperative task is the need of a good sequence of radiocarbon dates which is necessary to reconstruct absolute occupation periods of these sites. A reliable regional ceramic sequence can only be built up by the systematic excavation of a deeply stratified site. These most basic requirements are necessary before we might hope to investigate aspects of cultural economic and environmental processes to ameliorate our understanding of the rich past of Mali's Songhay heartland.

Footnote

1. A version of this paper was presented at the annual conference of the Society of African Archaeologists at Poznan in September of 1996.

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