

ARCHAEOLOGY ALONG THE KAVANGO RIVER/NAMIBIA

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ABSTRACT

Recent research of the DFG (German Science Foundation) SFB 389 ACACIA, the University of Cologne, yielded 73 archaeological sites along the southern banks of Kavango River/Namibia. Surface collections and some small excavations produced prehistoric artefacts, stratigraphic information and radiocarbon dates which have been used to establish a preliminary cultural sequence from the Early Stone Age to the late Iron Age. Ceramic LSA assemblages from the 1st millennium AD or earlier are among the relatively early occurrences of pottery in southern Africa. The Iron Age, beginning prior to AD 1000 can be divided into an earlier and a later stage which is represented by remnants of melting furnaces, settlements and abundant artefacts.

INTRODUCTION

Three Rivers form the southern and the northern frontiers of Namibia: The Orange River in the South of Namibia, the Kunene River in the North-West and the Kavango River in the North-East. These are the only permanent rivers in Namibia. Both the Kunene and the Orange Rivers flow in a westerly direction into the Atlantic. By contrast, the Kavango River, originating in central Angola to the North, flows in a south-east direction, ending in Botswana in an enormous inland delta. The large drainage system of the Kavango River separates Namibia's north-eastern territories from the rest of the country which is otherwise characterized by a drainage system focusing on the Atlantic Ocean. At the same time, the northern strip of Namibia, from Ovamboland to Caprivi, receives more than 500 mm of annual precipitation, thus allowing for agriculture during the rainy season from March to October. Along the central Kavango River the annual rainfall averages about 600 mm, which represents the maximum rainfall value throughout Namibia (Leser 1982:88).

Traditionally, the Kavango River was never regarded as a frontier, but as a linear oasis within the dry savannah landscape of north-eastern Namibia. Sections of the River marked the centre of neighbouring territories of the Kwangali, the Mbunza, the Sambyu and the Gciriku people, all of Bantu origin like their western neighbours the Ovambo. Following their oral tradition, Bantu people have occupied the central Kavango area for less than 500 years. Khoisan people are regarded as the only early inhabitants of the region.

The region is well known to students of African languages, due to the fact that no less than four different

Bantu language groups are concentrated in a relatively small area. The local wealth of languages has attracted long term linguistic research which has resulted in the development of historical models. W.G.Möhlig has spent three decades of research in the Kavango region. Among his complex historical models, a particular, now extinct language group, deserves special attention. Its speakers, reported as the Tchaube people, may have subsisted on mere hunting and gathering, with no food production, but at the same time producing iron (Fleisch & Möhlig 2002).

RECENT ARCHAEOLOGICAL RESEARCH BY ACACIA/SFB 389 OF COLOGNE UNIVERSITY

Archaeological knowledge about the Kavango region has always been very poor. Few archaeologists visited the area (Shackley 1986; Kinahan 1986; Jacobson 1987). For a long time, B. Sandelowsky (Windhoek) was the only archaeologist to undertake archaeological research in the area. At Vungu-Vungu she found an important Late Iron Age settlement, and her excavation at Kapako proved that iron production was present in the area as early as AD 840 (Sandelowsky 1979).

Since the ACACIA project ("Arid Climate, Adaptation and Cultural Innovation in Africa") was accepted by the German Research Council (Deutsche Forschungsgemeinschaft) as a special research unit "SFB 389" at Cologne University (Vogelsang *et al.* 2002), linguistic and archaeological investigations in the Kavango region have entered a new stage of research.

From 1996 to 1999, teams of Cologne University (Institut für Ur- und Frühgeschichte/Institute of Prehistoric Archaeology) conducted several archaeological surveys

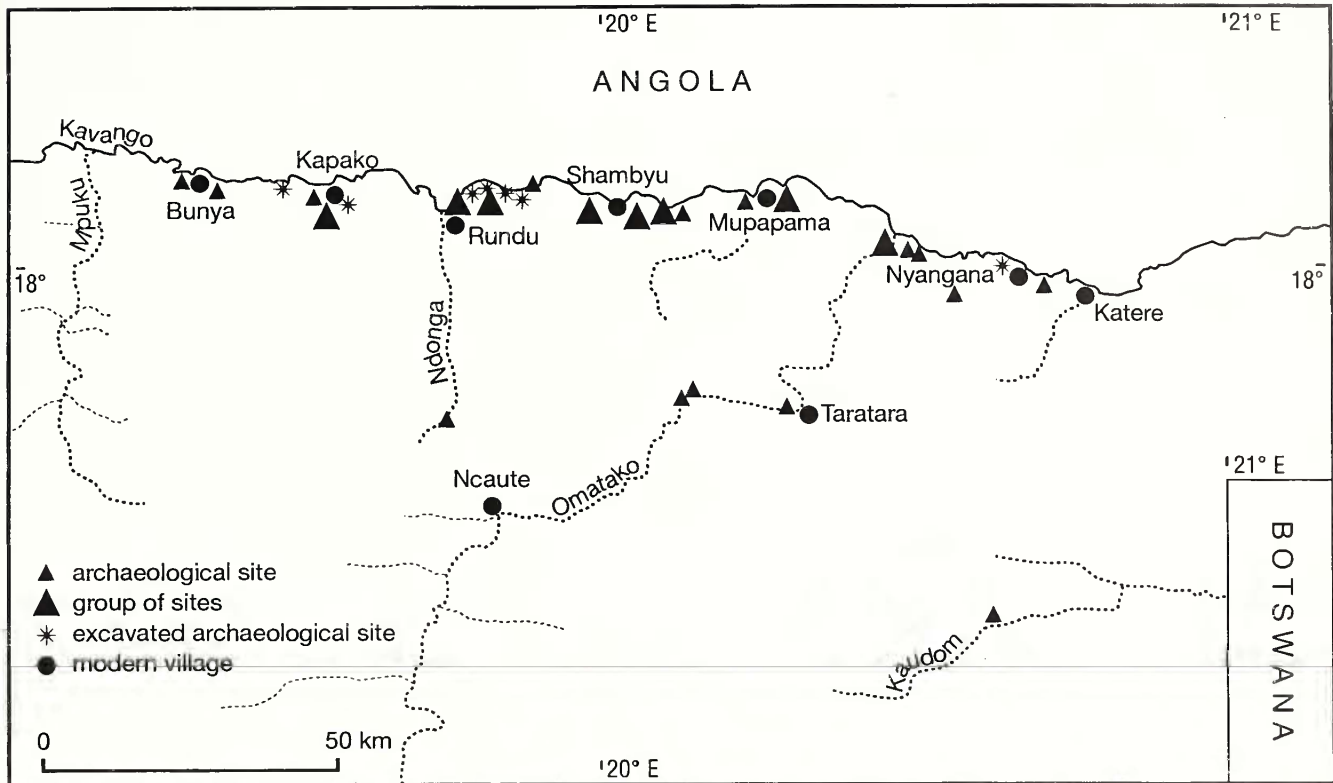


Fig. 1. Map of Rundu District, Namibia, with archaeological sites known before AD 2000.

along the banks of the Kavango River over a distance of about 100 km from east to west. The surveys had to be restricted to the southern banks of the Kavango River which belong to the Namibian territory. During the 1996-1999 campaigns, the whole Namibian territory around Rundu, the district capital, was accessible to the expeditions. The Angolan territory, north of the river, has never been visited. The civil war situation and the presence of UNITA made research impossible on the Angolan side. Due to the political climate from 2000 to 2002 no fieldwork has been carried out on both sides of the borderline.

Archaeological prospection was hampered by huge alluvial deposits covering more than two thirds of the river zone with no archaeological material exposed. Surveys had to concentrate on the eroded banks of the river (*Prallhang* banks) or on cliffs where the river had cut rare quartzite outcrops and calcareous crusts. This situation has led to distinct clusters of mapped archaeological sites. Thus, the archaeological map (Fig. 1) may not be interpreted in terms of prehistoric settlement patterns but must be understood as a mere, still incomplete, negative report of the alluvion distribution.

When surveying an area, where the archaeological situation is practically unknown, archaeologists must first aim at obtaining regional chronology of cultural development. A historical scale is essential for any further archaeological research, irrelevant of the direction these studies may take. More than 70 archaeological sites (see catalogue at the end of this paper) have been discovered so far and the principle stages of prehistoric occupation are already visible (for an overview of artefact inventories see Table 1).

PLEISTOCENE OCCUPATION: EARLY STONE AGE, MIDDLE STONE AGE AND EARLY LATER STONE AGE

Flakes and cores, possibly attributable to a kind of 'Developed Oldowan' Industry, hint at the earliest occupation of the area by *Homo erectus*, more than one million years ago (Site N99/14, Catalogue No.7) (Table 2).

Acheulian handaxes, flakes and cores of the 'Victoria West' method of artefact production attest a later stage of the Early Stone Age occupation, c. 500 000-130 000 years ago (f.e. Site N98/21, Catalogue No. 16; Fig. 2). Small numbers of Middle Stone Age sites, elsewhere connected with archaic *Homo sapiens*, are found in the Kavango region. Blades and flakes of the characteristic 'Levallois' method of artefact production are to be found at such sites (f.e. N98/22, Catalogue No. 11).

The Pleistocene/Holocene transition saw microlithic industries (Fig. 3) of the Messum-Menongue Complex (Richter 1993), dating to around BC 10 000. This is named after Menongue in Central Angola and Messum in the Central Namib Desert where microliths occur along side bifacially worked leaf-shaped points. Microlithic industries are attributed to the Later Stone Age, the Messum-Menongue Complex therefore comprises an early stage of this development. The artefacts illustrated come from the collection of the late Rev. Hartmann of Shambyu mission and are reported to be of local origin from the vicinity of the mission. The Cologne team was unable to localise the exact sites where the large number of related artefacts (bifacial leafpoints and large segments) were found. Parts of Hartmann's collection, containing abundant examples of

Table 1. Kavango Area. Artefact finds from 1996, 1998 and 1999 field surveys.

Site	Lithics n	Pottery n	Ornament n	Bones n	Slag/Ore n	Charcoal grs	Others n
N96/03-2	-	3	2	-	-	-	-
N96/03-3	10	92	-	-	-	0,52	4
N96/04	2	11	-	-	-	-	-
N96/05	1	14	-	1	-	-	-
N96/06	-	7	-	-	-	-	-
N96/07	1	2	-	-	-	-	-
N96/08	-	-	-	-	1	-	-
N96/09	-	1	-	-	-	-	-
N96/10	2	-	-	-	1	-	-
N96/11	-	2	-	-	-	-	-
N96/12	5	1	-	-	1	-	-
N96/14	6	-	-	-	-	-	-
N96/15	1	1	-	-	-	-	-
N96/16	7	1	-	-	-	-	-
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N98/14	3	-	-	-	-	-	-
N98/15	67	-	-	-	-	1,27	2
N98/16	35	1	-	-	-	-	-
N98/17	5	-	-	-	-	-	-
N98/18	4	-	-	-	-	-	-
N98/19	2	-	-	-	-	-	-
N98/20	5	-	-	-	-	-	-
N98/21	27	-	-	-	-	-	-
N98/22	6	-	-	-	-	-	-
N98/23	-	2	-	-	-	-	-
N98/24	3	-	-	-	-	-	-
N98/25	1	16	-	-	1	-	1
N98/26	3	1	-	-	-	-	-
N98/27	9	65	1	2	-	39,36	1
N98/28	3	-	-	-	-	-	-
N98/29	-	4	-	-	-	-	-
N98/30	4	7	-	4	2	-	-
N98/31	1	-	-	-	-	-	-
N98/32	119	613	103	161	59	164,7	111
N98/32-1	-	2	-	-	1	-	-
N98/32-2	70	1305	76	6	2	0,69	9
N98/33	4	13	-	-	-	-	-
N98/34	7	8	-	-	2	-	-
N98/35	-	1	-	-	-	-	-
N98/36	-	5	-	-	-	-	-
N98/37	1	1	-	-	2	-	-
N98/38	1	6	-	-	1	-	-
N98/39	23	88	-	1	1	-	5
N98/39-1	201	197	12	84	1	8,8	132
N98/40	5	1	-	1	-	-	-
N98/41	11	3	-	-	1	-	-
N98/42	-	4	-	-	-	-	-
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N99/14	8	2	-	3	-	-	-
N99/15	-	-	-	-	-	-	6
N99/16	17	-	-	-	-	-	1
N99/17	6	-	-	-	-	-	-
N99/18	7	-	-	-	-	-	2
N99/19	-	-	-	-	-	-	9
N99/20	3	47	2	25	-	131,9	63
N99/21	175	415	31	750	41	1	29

Table 2. Archaeological Chronology of the Kavango Area.

Estimated Calendric age	Cultural unit	Sites along Kavango River	Omatako Khaudom
1900-2000 AD	modern Shambyu, Giriku Bunza	Sarasungu Katere	Tamsu
1500 AD	Late Iron Age	Vungu-Vungu	
1000AD	Early Iron Age	Kapako	
500 AD 0 1000 BC	Ceramic Late Stone Age	Ruuga Karangana	
5000 BC 10 000 BC	Late Stone Age Early LSA Messum-Menongue Complex	Rundu Shambyu Mission Ngandu Lodge 2	Taratara
50 000BC 100 000 BC 500 000 BC 1 000 000 BC	Middle Stone Age Upper Early Stone Age (Levallois) Lower Early Stone Age (Victoria-West) Developed Oldowan	Nyangana Ngandu Lodge 1 Mawanje	Ncaute

all Palaeolithic stages, are on display at the Shambyu Mission Museum, other parts are kept at the National Museum/Windhoek and at the Swakopmund Museum.

The fact that some very old prehistoric sites are still surprisingly well preserved illustrates the relative geomorphological equilibrium of some stretches of the Kavango river bank throughout the entire Pleistocene period.

Holocene Occupation: Later Stone Age, Ceramic Later Stone Age, Iron Age

By contrast, and most surprisingly, the evidence for early and mid-Holocene occupation of the area has remained very poor. Later Stone Age microlithic industries are, however, well known from neighbouring regions on the southern African subcontinent. Moreover, the private collection of the late Rev. Hartmann of Shambyu mission comprises

several thousand such microliths, information on their origin is unfortunately lacking. The Cologne expeditions have localised only a few undisturbed Later Stone Age sites (Fig. 3), all without organic preservation. Only one LSA site comes from a stratigraphic sequence near Rundu (N98/15, Catalogue No. 13).

Regionally, the Later Stone Age can be divided into an earlier pre-ceramic stage and a later ceramic stage. The Ceramic Later Stone Age (CLSA) is comparably well represented by a group of sites west of Rundu. These sites yielded microlithic tools along with pottery and, occasionally, with charcoal and bones. Based on the stratigraphic sequence at Ruuga, the local CLSA can now be dated to the 1st millennium AD (minimum age; Site N98/39, Catalogue No. 3). Some time ago CLSA occurrences still represented a rare phenomenon in southern Africa. Most of the pottery discovered was thought to have been introduced into the subcontinent by immigrating farmers of the Bantu language group in the Iron Age (*cf.* Hall 1987). Nevertheless, the last decades of research have seen an increasing number of CLSA occurrences, mainly in the southwestern part of the subcontinent, in the Cape Province, Central Namibia and Northern Namibia. Bones of domestic sheep connected with some of these finds suggest the presence of an early herding economy 2000 years ago, long before the first Bantu farmers reached southern Africa. The presence, in the same assemblages, of so many microlithic projectile points argues for hunting as another important economic component of the CLSA.

Most archaeological sites of the Kavango region can be attributed to the Iron Age which covers the last millennium. An earlier stage of the Iron age was already attested by B.Sandelowsky, at Kapako (N74/1, Catalogue No. 5), dated to the end of the first millennium AD. Between AD 1000 and AD 1500, a hiatus of 500 years interrupts the archaeological record. A later stage of the Iron Age is well represented by an abundance of sites dated to the last 500 years, the most important site of this stage being Vungu-Vungu (Sandelowsky's excavation N74/2, Catalogue No. 29, and our own excavation N98/32, Catalogue No. 34). While classification and dating of Iron Age sites are still under intensive analysis, two major economic systems can already be recognized:

The first system is characterized by large areas of iron ore exploitation. Here, close to the river banks near Nyangana, thousands of pits were dug into ferricrete layers, a few inches under the present surface (N98/45, Catalogue No. 55 and N98/46, Catalogue No. 60). Heaps of debris and used quartzite hammer stones are visible on the surface. As any traces of connected iron production or settlement are absent, these exploitation areas must be regarded as parts of a widespread economic system. Large amounts of iron ore were collected and presumably transported, on the Kavango River, to the centres of iron production yet to be found. Iron ingots and artefacts were produced for trade, not only for domestic use. Chieftains probably dominated such a system which might well have been part of the trade networks of the "Great Zimbabwe" period. Calendric data

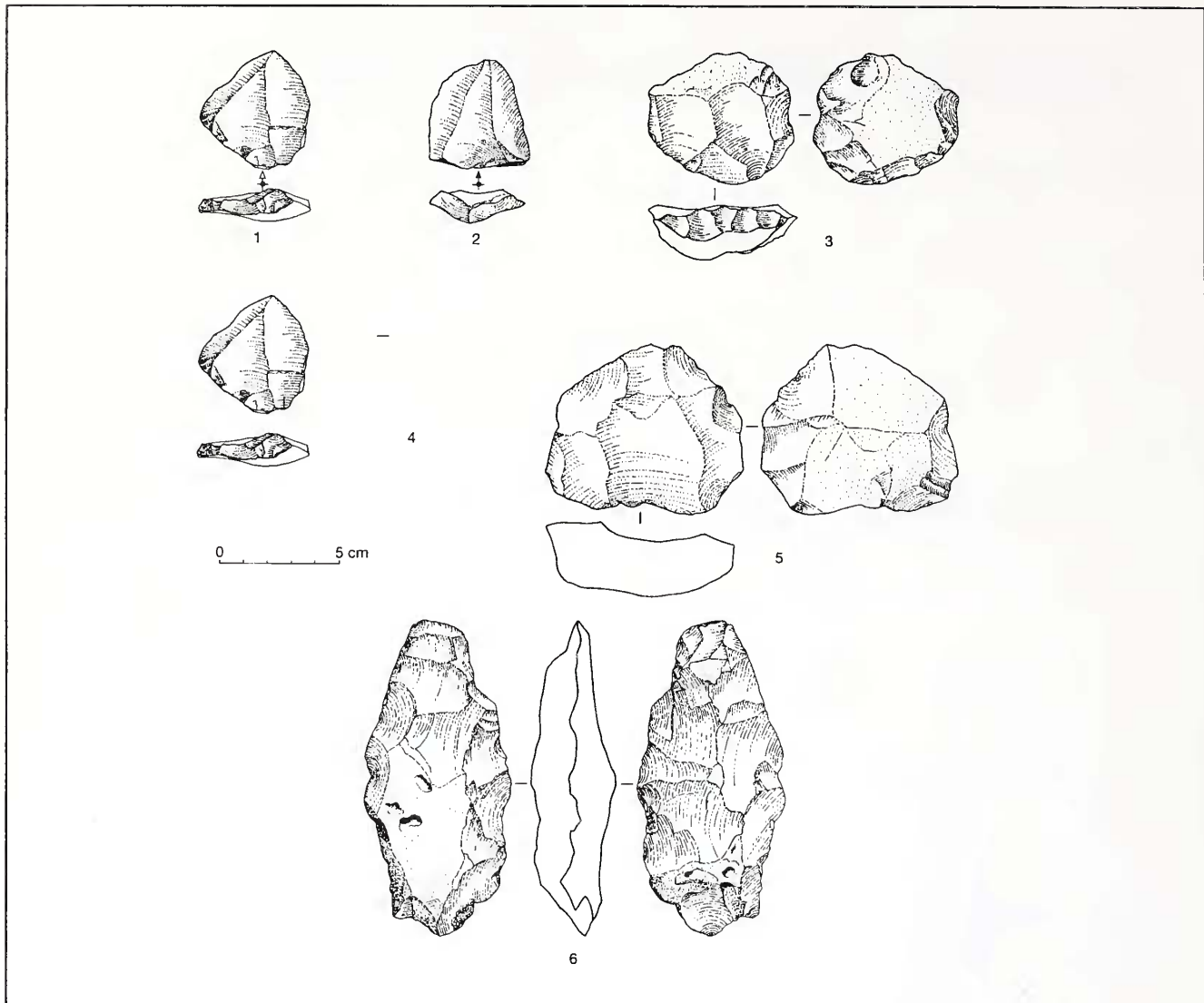


Fig. 2. Early Stone Age. Sandstone artefacts from Site N98/21 near Rundu. 1-5 Flakes and cores from the Victoria-West Concept. 1 Eclat à débordement partiel, 2 preferential flake with dièdre platform, 3 small core with faceted platform, 4 "horseshoe" Victoria-West core with faceted platform, 4 "horseshoe" Victoria-West core, 6 handaxe with sharp cutting edge (upper face, left).

as yet are not available, but it is well possible that the first system preceded the second one described below, as the second occurred only during the last 500 years. At present, however, a contemporaneous existence of both economic systems cannot be ruled out.

The second system is characterized by small exploitation sites. Here, iron ore was collected superficially, and iron production took place in nearby furnaces within small settlement sites. At Vungu-Vungu (N98/32, Catalogue No. 34), an excavation of a settlement yielded abundant archaeological material. Pottery, stone artefacts, ostrich eggshell ornaments, glass beads, charcoal and bone have been found along side the remnants of iron production such as tuyeres, slag and fragments of the furnaces. Charcoal and bone produced Radiocarbon dates falling within the last three centuries. Charcoal analysis proved highly specialised wood procurement, concentrated on *Acacia* species. Animal bones were, most surprisingly and in some accordance with

the "Tchaube" linguistic model mentioned above most exclusively from wild animals. While hunting is now attested as an important economic component for Vungu-Vungu, evidence is still ambiguous about the interpretation of the system as a whole. Was Vungu-Vungu a settlement of iron producing hunter-gatherers such as the reconstructed Tschaupe group? Was it an ephemeral hunting stand and an iron production site of Bantu farmers living elsewhere such as it is contested for the Gciriku group (Fisch 1994)?

At the present preliminary stage, the Pleistocene and Early/Mid-Holocene sequence can only be derived from comparisons with neighbouring regions and from the late Holocene cultural sequence which is of local origin and based on three main arguments:

1. The stratigraphy found by B. Sandelowsky at Kapako shows that the cross-hatching rim decoration found in

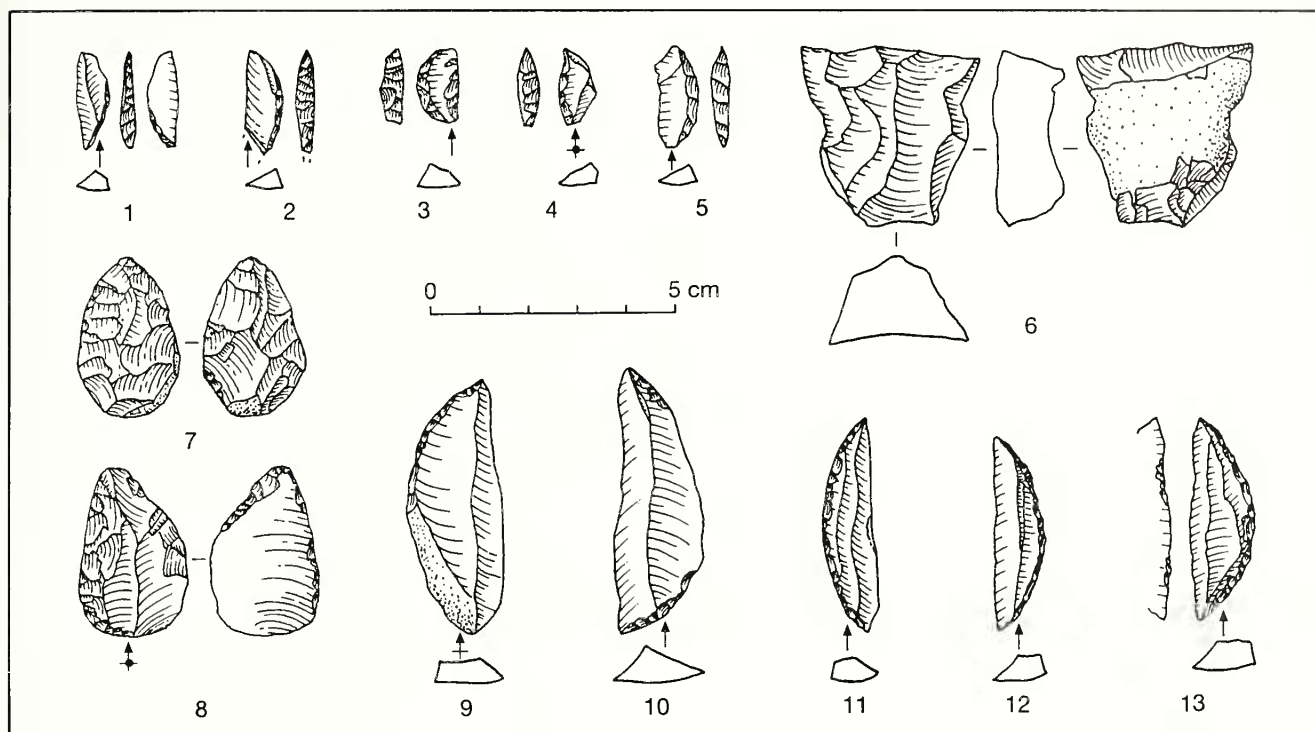


Fig. 3. Below (7-13). Early Later Stone Age from unknown site near Shambyu mission (coll. Rev. Hartmann, courtesy Swakopmund Museum). 7, 8, 10-13 Chalcedony, 9 sandstone. 7 Small leafpoint, 8 bifacially worked point, 9 backed point, 10 backed trapeze, 11-13 backed segments. Above (1-6) Later Stone Age from site N98/15 near Rundu. 1, 3, 4, 6 Chalcedony, 2, 5 sandstone. 1, 2, 5 Microlithic segments, 3 backed microlithic sidescraper, 4 microlithic sidescraper, 6 unidirectional bladelet core.

the upper layer at Kapako is younger than herring-bone decoration found in the lower layer at the site (Sandelowsky 1979:55). Cross-hatching under the rim is the most common pattern at Vungu-Vungu.

2. The seriation of pottery decoration suggests that Vungu-Vungu as more recent than Ruuga, which might represent the oldest stage of pottery development.
3. Radiocarbon dates which date Ruuga to the 1st millennium AD or earlier, Kapako to ca AD 1000 and Vungu-Vungu to the last half millennium.

LATE HOLOCENE CHRONOLOGY: RELATIVE DATING BY SERIATION OF POTTERY ATTRIBUTES

Surface collection and excavation delivered a reasonable sample of potsherds (see Table 1: Inventory of archaeological objects). First comparison of ceramic decoration suggested that a very regular grammar of shapes and motives here to be found on vessels from all different Kavango localities and possible time ranges:

1. All pots were round-based, bowl-shaped or bag-shaped. There are no feet. There is not a single fragment of a flat bottom. There are no handles, lugs or nobs (Fig. 4).

2. Overall decoration never occurs and body decoration occurs only from the shoulder upwards, either under the rim or at the neck/shoulder and sometimes on the rim.

3. All motifs are organized in bands around the vessel.

Currently, potsherds from 108 vessels have undergone an attribute analysis. Attributes were: kind of fragment (rimsherd, bodysherd), weight, thickness, fabric, rim shape, rim structure, decoration/body, decoration/rim. 24 different patterns of body decoration and 20 different patterns of rim decoration have been observed so far. The decorations are made by the incision, impression and modelling of relief bands. Different techniques may be combined within one pattern.

Body decoration (Fig. 5)

- | | |
|----|---|
| W1 | Two interfering bands of parallel rhombic double-impressions, carried out by a double-toothed tool. |
| W2 | Band of impressed cross-hatching, carried out by a serrated tool (river shell?). |
| W3 | Band of incised herring-bone patterns on relief band. |
| W4 | Band of impressed parallel, oblique, coarse strokes, can also be applied to a relief band. |
| W5 | Band of incised cross-hatching on relief band, may be accompanied by a grooved line. |

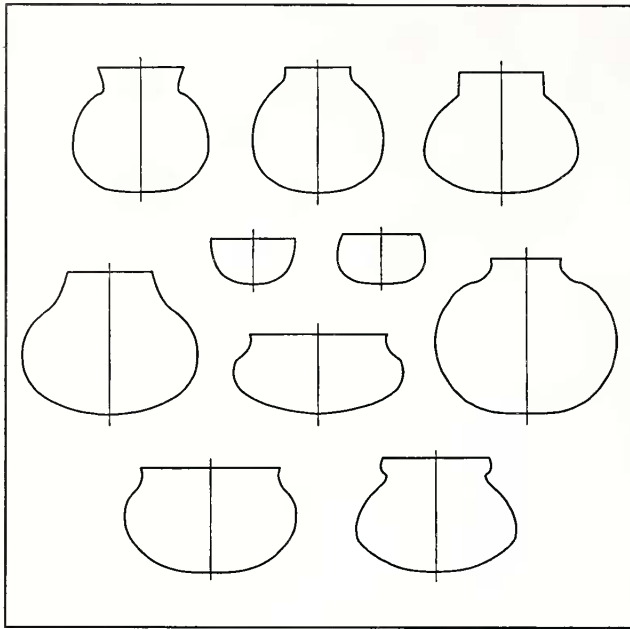


Fig. 4. Ceramic Later Stone Age, Iron Age and modern: Shapes of ceramic vessels (not to scale). Most of the indicated shapes are preliminary, as the vast majority of potsherds do not allow for exact reconstructions.

- W6 Zig-zag band of impressed oblique strokes, on relief band.
- W7 Interchanging groups of incised, oblique parallel lines combined with triangular impressions carried out by a three toothed tool.
- W8 Band of impressed crescents on relief band.
- W9 Band of impressed horizontal triangles accompanied by a band of vertical triangles.
- W10 Open zig-zag band of impressed oblique strokes, separated by small gaps, on relief band.
- W11 Band of impressed crosses, can also be applied to a relief band.
- W12 Relief line.
- W13 Band of hanging triangles, filled by incised cross-hatching.
- W14 Zig-zag band of incised triple lines, may be accompanied by incised horizontal line.
- W15 Band of double-impressions.
- W16 Incised, horizontal double line, with irregular cross-hatching.
- W17 Band of multiple impressions, lower and upper side accompanied by horizontal grooves.
- W18 Band of hanging triangles filled by incised horizontal lines.
- W19 Band of incised multiple horizontal lines
- W20 Thin relief band, interrupted by distant single impressions.
- W21 Incised, horizontal double line, crossed by incised oblique hatching.
- W22 Band of horizontal thumbnail impressions.
- W23 Thin relief band, upper and lower side accompanied by impressed, alternating strokes.

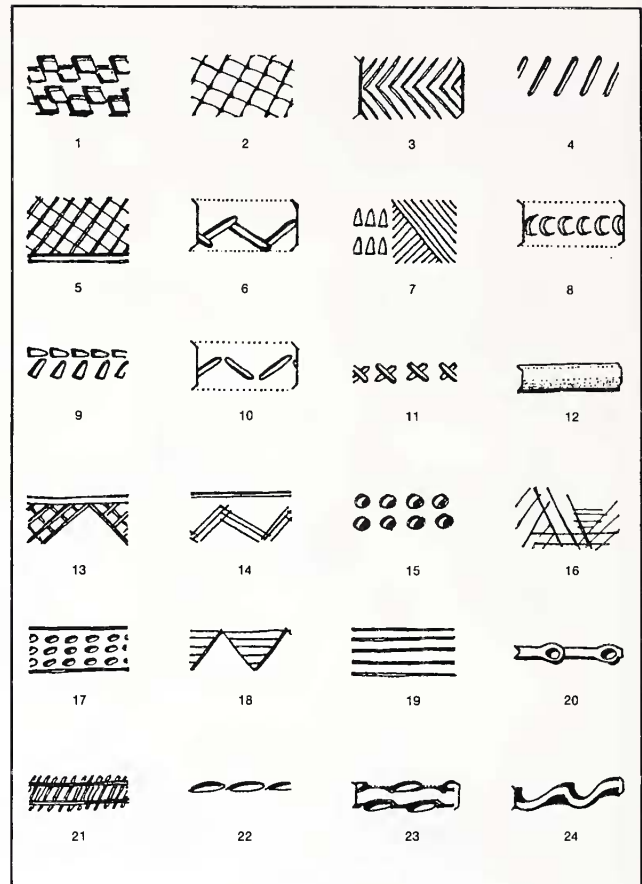


Fig. 5. Ceramic Later Stone Age, Iron Age and modern: Body (neck and shoulder) decoration, patterns W1 to W24.

- W2 Thin relief band, upper and lower side accompanied by alternating thumbnail impressions.

Rim decoration (Fig. 6)

- R1 Band of incised cross-hatching on relief band, may be accompanied by a grooved line.
- R2 Band of impressed parallel, oblique, coarse strokes
- R3 Impressed cross-hatching combined with horizontal group of lines, separated by vertical groove.
- R4 Bundle of incised thin horizontal lines, crossed by thin distant, vertical or oblique double-lines.
- R5 Band of incised cross-hatching on relief band, lower cross-hatching denser than upper.
- R6 Three or four incised, parallel horizontal lines.
- R7 Narrow band of incised, distant cross-hatching.
- R8 Band of incised herring-bones.
- R9 Band of double-impressions.
- R10 Band of mat-impression of unclear origin.
- R11 Band of impressed parallel, oblique, coarse strokes, accompanied by horizontal groove.
- R12 Band of impressed, distant horizontal strokes.
- R13 Narrow band of very regularly impressed, oblique parallel strokes.

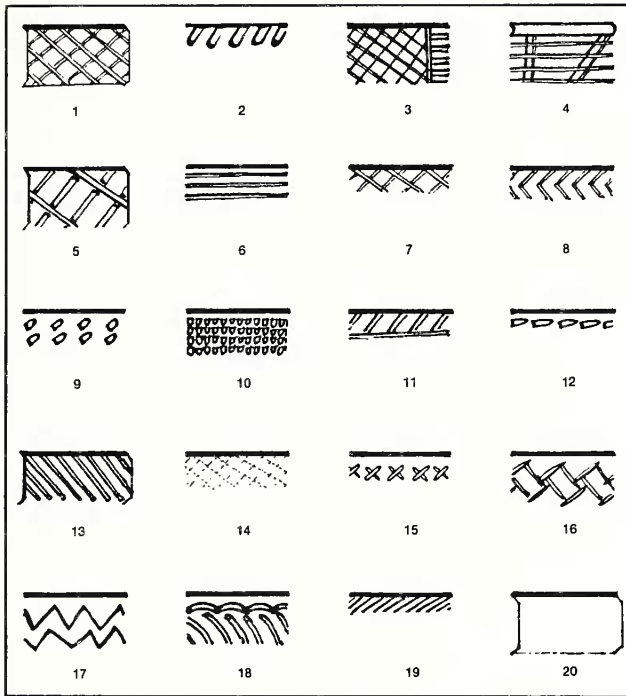


Fig. 6. Ceramic Later Stone Age, Iron Age and modern: Rim decoration, patterns R1 to R20.

- R14B and of incised cross-hatching, surface smoothed after decoration.
- R15 Band of hanging triangles, filled by incised cross-hatching.
- R16 Band of impressed, coarse cross-hatching.
- R17 Double-band of incised zig-zag lines, carried out on dry surface.
- R18 Band of impressed horizontal crescents, accompanied by band of rocker-stamps.
- R19 Narrow band of incised, oblique parallel lines
- R20 Plain relief band.

As can easily be seen, body (shoulder and neck) decoration follows the same principles as rim decoration. Bands of impressed or incised patterns are abundant, sometimes on top of a relief band and sometimes accompanied and delimited by an incised line. The relative homogeneity of patterns and the broad resemblance of decoration rules has made a statistical analysis possible, based on the above catalogue of decorative bands and carried out by the WinBASP (Irvin Scollar, Bonn) correspondence analysis software.

The table (Table 3) gives a selection of the most abundant patterns and some important sites. Patterns occurring only one or two times and small sites have been excluded for this simplified seriation table. The table also contains some surface finds and the contemporaneity of the assemblages (lines of the table) is as yet not confirmed. Nevertheless, the table already shows an order of distribution from East to West and, if compared with radiocarbon dates (Table 4), from more recent to more

ancient assemblages, thus replicating the sequence Vungu-Vungu - Kapako - Ruuga.

LATE HOLOCENE CHRONOLOGY: ABSOLUTE DATING

Organic material suitable for radiocarbon dating is very difficult to acquire in the Kavango region. The acid soils of the region tend to dissolve bone collagen in a very short time span. Bones older than 200 years usually do not contain any collagen, even if the overall conservation of bone seems to be fairly good. Thus, archaeological dating must almost fully rely on charcoal samples. As modern local land use economy includes annual burning of bushes and trees, charcoal is ubiquitous throughout the whole dry savannah region. Moreover, the river banks of the Kavango attract all kinds of everyday activities, such as fire making and cooking. As a consequence, all charcoal samples used for dating had to come from stratigraphic context. The 15 radiocarbon dates available so far cluster in three groups: The first group dates the CLSA from Ruuga, indicating a 1st millennium AD or earlier age. The second group is around 1000 A.D. and dates the Early Iron Age of Kapako. The third group is from the last 500 years and dates the late Iron Age from Vungu-Vungu and Nyangana (Table 4).

CONCLUSIONS

Four very restricted surveys of the Kavango area, between 1996 and 1999 have yielded a rough framework of a regional cultural sequence with Early Stone Age, Middle Stone Age, Early Later Stone Age, Later Stone Age, Early Iron Age, Late Iron Age and modern occurrences. For the most ancient finds, calendar dates are not available and the archaeological context is still vague. Regional characteristics can be described only from the ELSA onwards.

During the Late Pleistocene/Early Holocene ELSA the region was part of a south Angolan/North Namibian context area (Messum-Menongue complex). Early/Mid Holocene LSA assemblages do not show any regional difference, compared to the neighbouring Wilton/LSA microlithic complexes.

During the late Holocene, cultural development was essentially different from the rest of Namibia and, from time to time, parallels Angolan and southern Zambian traditions, as indicated by pottery decoration.

The ceramic LSA (e.g. near Ruuga) occurs to be one of the relatively ancient occurrences of pottery along side micro-lithic tools in southern Africa. As yet, nothing is known about the economy of the Kavango CLSA during the late second and first millennium BC. As stratigraphies are rare and of low quality admixture of CLSA assemblages with younger elements cannot be ruled out. Thus, the characteristics of CLSA pottery can only be described on a preliminary level and request more in-depth investigation. Nevertheless, the very early uncalibrated date, of 3600 BP for the earliest CLSA pottery at Ruuga must be taken with caution.

Table 3. Presence/absence seriation results of some selected decoration patterns and archaeological sites.

site	locality	W20	W6	W4	R1	R5	W10	R2	W5	W11	W15
N98/43	Ndonga	X			X						
N96/05	Shambyu		X		X						
N98/32 surface	Vungu-Vungu	X	X	X	X	X	X		X		
N98/32 excav.	Vungu-Vungu		X	X	X	X	X	X	X		
N98/30	Vungu-Vungu				X	X			X	X	
N98/38	Kapako							X	X		
N98/39	Ruuga				X				X	X	X
N98/33	Rundu								X		X
n occurrences		2	3	2	6	3	2	2	6	2	2

Table 4. Radiocarbon dates from the Kavango region (all uncal. BP).

KN-5190	Sarasungu N98/27	charcoal	280+-30
KN-5191	Vungu Vungu N98/32	charcoal	85+-30
KN-5313	Vungu Vungu N98/32	bone collagene	20+-40
KN-5329	Vungu Vungu N98/32	bone collagene	40 +-60
KN-5330	Vungu Vungu N98/32	bone collagene	100+-50
Pta-236	Vungu-Vungu N74/1	charcoal	320+-45
KN-5375	Nyangana N98/43	charcoal	120+-35
KN-5376	Nyangana N98/43	charcoal	235+-35
KN-5377	Nyangana N98/43	charcoal	220+-35
Pta-234	Kapako N74/2	charcoal	840+-50
KN-5574	Kapako, lower	charcoal	180+-33
KN-5575	Kapako, upper	charcoal	1070+-49
KN-5576	Ruuga N98/39, upper	charcoal	3265+-35
KN-5577	Ruuga N98/39, central	charcoal	1440+-35
KN-5578	Ruuga N98/39, lower	charcoal	2670+-40

Iron technology occurs prior to AD 1000 in the region (e.g. near Kapako). This is connected with frequent herring-bone pottery decoration which is matched by similar decoration patterns from pottery found at the Caninguirí fortified site in Central Angola (Ervedosa 1980).

Late Iron Age sites from the last half millennium are most abundant in the Kavango region. Near Vungu-Vungu, a very dense cluster of sites has been found with iron melting furnaces, iron ore sources and settlements. Hunting connected with iron melting and processing played a major role in the economy of the Vungu-Vungu inhabitants who might be identified either with the Shambyu or with the Tchaube people.

CATALOGUE OF ARCHAEOLOGICAL SITES

The order of listed sites is from west to east (Figs 7 & 8).

1. Site N97/09, Bunja/Rundu District, 19.21E; 17.51S, LIA

On the ground of the Roman Catholic Mission of Bunja, about 45 km west of Rundu town. 30-40 cm dark cultural

layer eroding from a steep slope along the Kavango river. Archaeological site extending over 100 x 150 m. Pottery (Vungu-Vungu type; Fig. 9) from cultural layer. Surface collection from cultural layer eroding from the slope of the Kavango River bank.

2. Site N98/40, Karrangana/Rundu District, 19.24E; 17.52S, LIA, LSA

Area 1: Slight hill between Mbunza and Karrangana villages. Abandoned settlement with some old trees and vegetation-free area. Loose artefact scatter of 100 x 80 m. Pottery (Kapako Type, Fig. 9) and LSA stone artefacts from a harvested maize field. Surface collection.

Area 2: North of the road Rundu-Nkurunkuru (50 m south of area 1). Dune, partly destroyed by road construction. Eroding dune displays a stratigraphic section of 3 m height. Patinated blade fragment from natural section. Surface collection.

3. Site N98/39, Ruuga/Rundu District, 19.31E; 17.52S, LSA, IA

Western part of Ruuga village. Shallow hill with northern

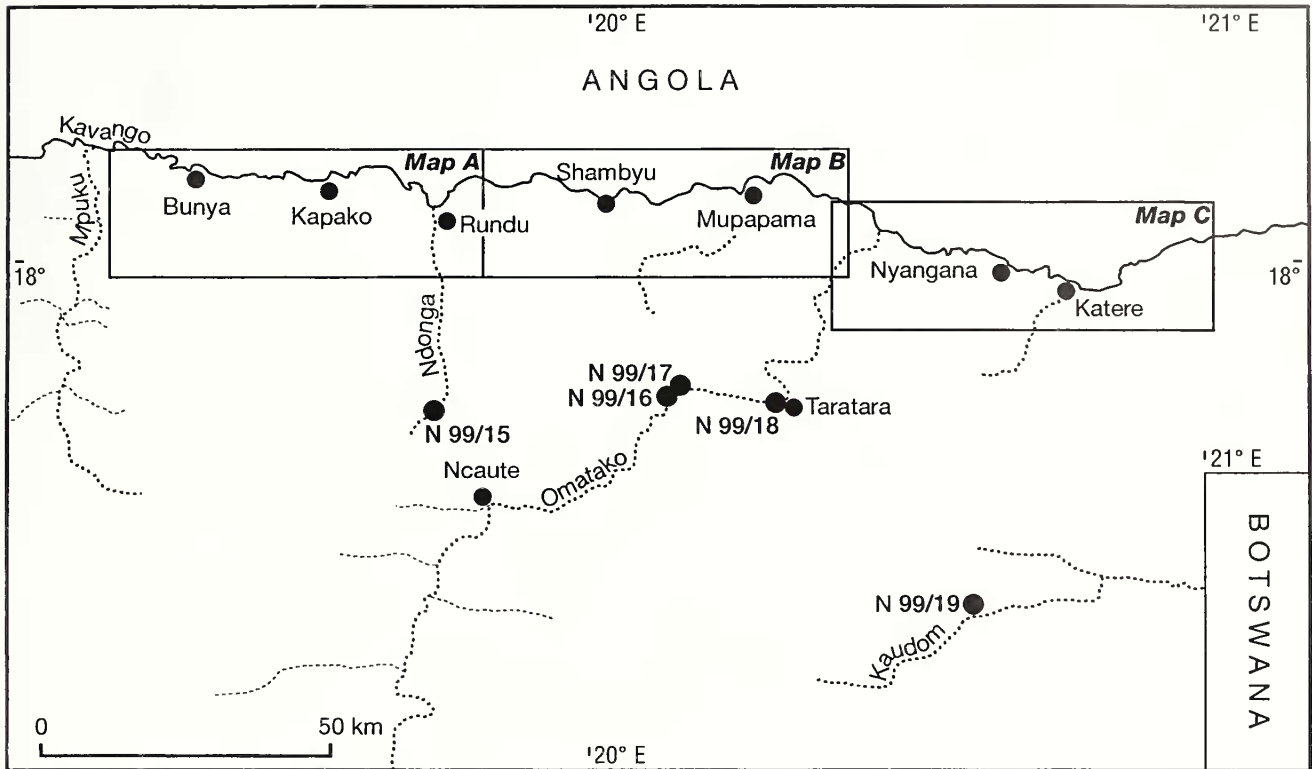


Fig. 7. Map of Rundu District, Namibia. Overview and archaeological sites near Ndonga, Omatako and Khaudom dry river beds. For Kavango sites, see detailed maps A-C.

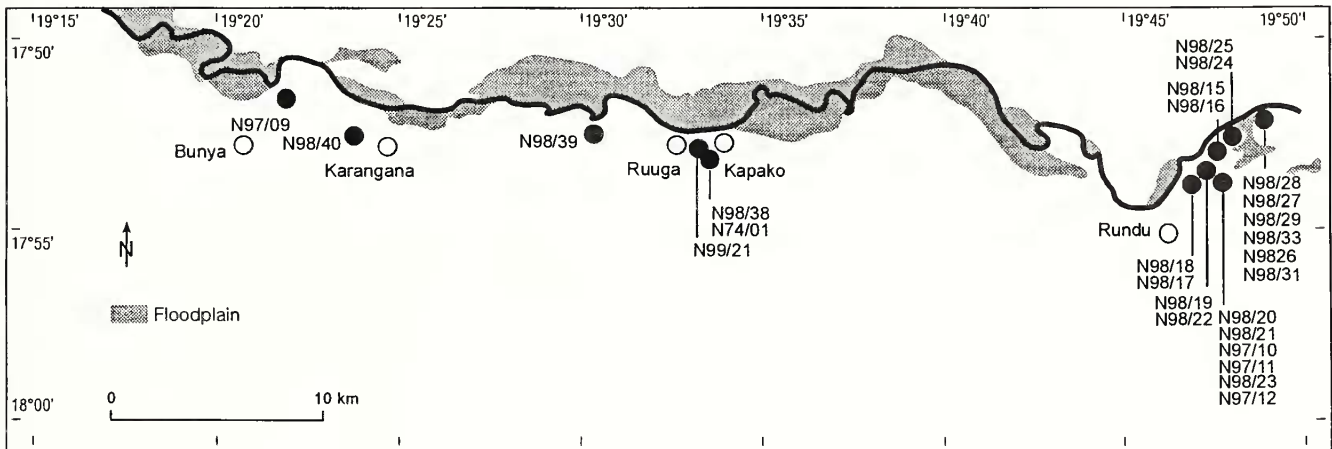


Fig. 8. Map of Rundu District, Namibia. Overview and archaeological sites near Ndonga, Omatako and Khaudom dry river beds. For Kavango sites, see detailed maps A-C.

Prallhang slope along the Kavango river. On the top abandoned settlement site with old tree and vegetation-free area (Fig. 10). Hill consisting of a calcareous crust. Extension of the archaeological site marked by an artefact scatter of 300 x 100 m. Decorated (Kapako and Vungu-Vungu Type, Figs 9 & 11) and undecorated pottery, stone artefacts and iron slags from a harvested maize field. Trial excavation of 3 m², to a depth of 1 m. Archaeological finds excavated by artificial levels within homogenous, fine grained grey-brownish sand with silty and humic components.

Within the stratigraphic section, one occupational

horizon could be identified which delivered three somewhat ambiguous radiocarbon dates (see Table 4), indicating a minimum age, of the archaeological finds of ca 1440 BP (uncal.) Or AD 600 (uncal.)

4. Site N98/38, Kapako/Rundu District, 19.33E; 17.52S, LIA.

Located on a cliff consisting of a calcareous crust. The cliff has a northern and eastern slope along the Kavango River. The steep slopes are products of the fluvial erosion. At the top of cliff a large *Acacia* tree marks an old farmsite with loose artefact scatter. Archaeological finds from a 100

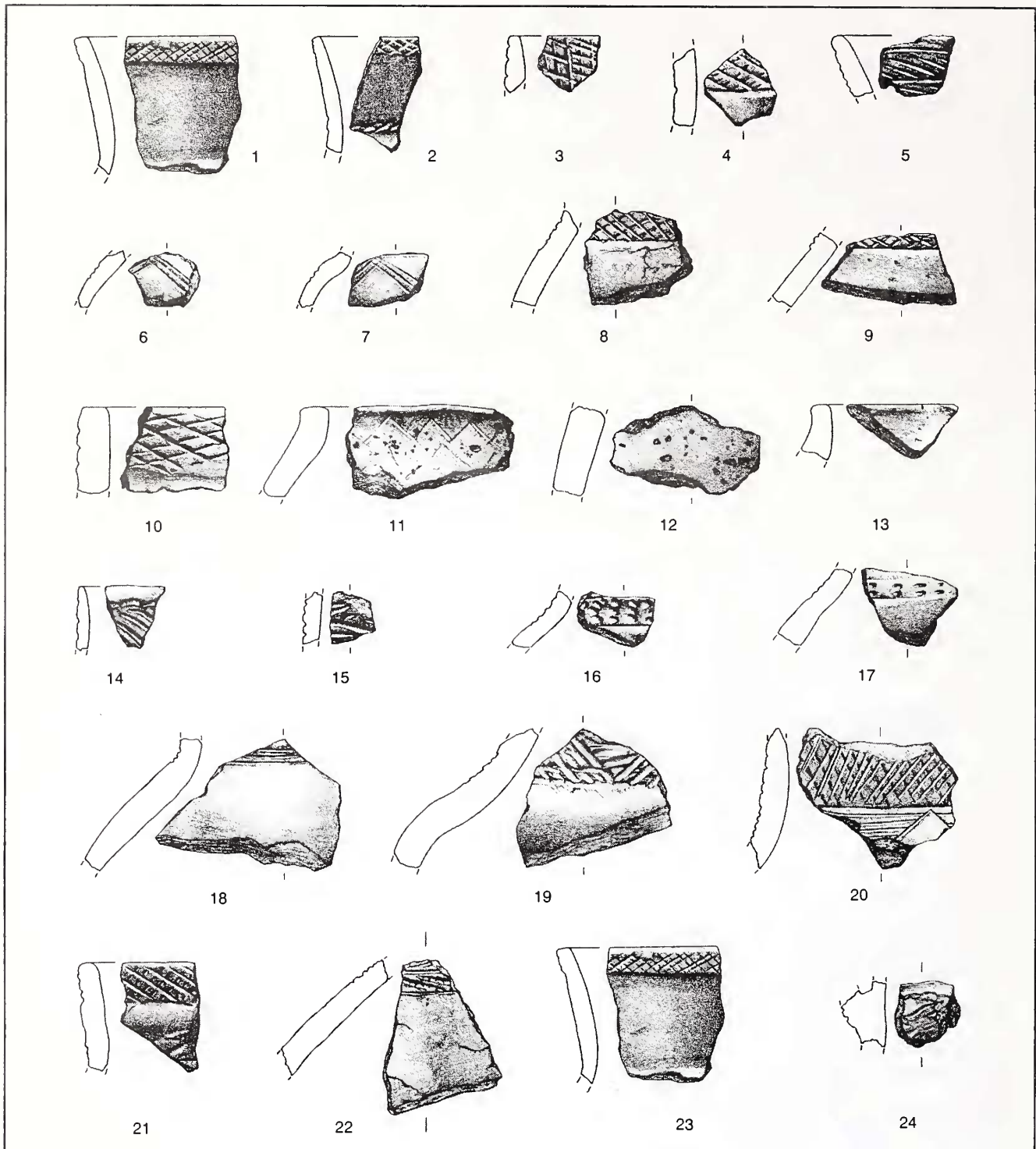


Fig. 9. Pottery from archaeological sites west of Rundu/Namibia. 1-4: Bunja N97/09. 5: Karangana N98/40. 6-24: Ruuga N98/39. Scale: half-size.

x 100 m area on a harvested maize field. Pottery (Vungu-Vungu-Type and others, Fig. 11), glass and iron. The site presumably represents the last stage of iron melting during the 19/20th century (Fig. 12).

5. Site N74/1, Kapako/Rundu District, 19.33E; 17.52S, IA

Beatrice Sandelowsky's excavation of 1974 (Sandelowsky 1979). The test trench near Kapako Mission

delivered a stratigraphic sequence with two principal archaeological horizons. The sequence displays the Kapako ceramic stage as older, and the Vungu-Vungu ceramic stage as younger.

6. Site N99/21, Kapako/Rundu District, 19.34E; 17.52S, IA

About 250 m west of Kapako Mission, on a cliff over the Kavango River, an artefact scatter with pottery (Kapako



Fig. 10. View of site N98/39. Kavango River in the background.

Type and Vungu-Vungu Type, Fig. 13) and ostrich eggshell beads was located. A test trench of 2 x 2 m was excavated to a maximum depth of 50 cm where a calcareous crust stopped excavation. Stratigraphy (Fig. 14).

1. Surface, loose sand.
2. Shallow pit of consolidated, dark-brown, silty sand.
3. Loose brown-grey fine-grained sand, disturbed. Archaeological finds.
4. Consolidated, fine-grained, dark-brown Sand with charcoal and bone fragments. Archaeological finds, fragmented skull of a child in upright position.
5. Consolidated, light brown, fine-grained sand. Archaeological finds.
6. Slightly consolidated, light brown, fine-grained sand. Sterile.
7. Calcareous crust.

Most probably, the ostrich eggshell beads were part of the skull burial.

7. Site N99/14, Mawanje/Rundu/Rundu District, 19.44E; 17.58S, ESA

In a gravel quarry west of the road from Rundu to Ncaute, near Mawanje village, a quaternary sequence with artefacts and bones from 4,5 m depth was observed. Surface collection.

8. Site N98/18, Ngandu-West/Rundu/Rundu District, 19.46E; 17.54S, MSA

In front of a huge sandstone cliff at the northern fringe of Rundu town. Small alluvial peninsula called Sarasungu. On alluvial ground, about 150 m north of the sandstone cliff, sand dune with MSA artefacts. Surface collection.

9. Site N98/17, Ngandu-West/Rundu/Rundu District, 19°46E; 17.54S, ESA, LSA

Near N98/18, some steps downhill from Ngandu Lodge, a tourist bungalow complex on the edge of the Rundu sandstone cliff, the slope with abundant debris accidentally exploited for use in roadworks. Exploitation work

uncovered 20 x 20 m artefact scatter with MSA quartzite flakes. Surface collection.

10. Site N98/19, Ngandu-West/Rundu/Rundu District, 19.46E; 17.54S, MSA

Site number N 98/19 refers to single, redeposited MSA quartzite artefacts found on the surface between N98/17 and N98/18 on alluvial ground with sand dunes in front of the sandstone cliff. Surface collection.

11. Site N98/22, Ngandu-East/Rundu/Rundu District, 19.46E; 17.54S, MSA, LSA

East of the indicated coordinate, on an area extending over 600 m from east to west, on alluvial ground in front of the Rundu sandstone cliff. Area marked by extensive quarry exploitation of sandstone debris. Single, redeposited MSA and LSA artefacts of quartzite and chalcedony. Large number of profile sections within the indicated area caused by exploitation works. Surface collection.

12. Site N98/16, Sarasungu-South/Rundu/Rundu District, 19.46E; 17.53S, MSA, LSA

100 m West of track connecting Ngandu Lodge and Sarasungu Lodge. Dune area with large commercial sand excavation pits displaying several profiles. Sections show a 4 m sequence of alluvial and aeolic sands with an incorporated calcareous crust. Fragments of the calcareous crust contained MSA artefacts.

Artefact scatter of 10 x 10 m in an area where the calcareous crust is uncovered *in situ*. Surface finds of MSA artefacts of quartzite and LSA artefacts of chalcedony also displaying varnish surfaces. These finds originate presumably from surfaces of sand dunes deposited on top of the calcareous crust. Wind erosion displaced dunes until the recent, hard level of the calcareous crust was revealed. Imperishable artefacts were left behind on the recent projection surface. Surface collection.

13. Site N98/15, Sarasungu-South/Rundu/Rundu District, 19.46E; 17.53S, LSA

25 m East of the track connecting Ngandu Lodge and Sarasungu Lodge. Dune field on alluvial ground with large Eucalyptus plantation. 3 x 2 m surface scatter of LSA artefacts near the edge of a sand exploitation pit.

Artefact scatter investigated by 3 x 2 m test trench with LSA *in situ* horizon between 0,35 - 0,6 m depth. The excavated section and a second section, revealed by the sand exploitation works at 20 m further north, displayed a principal stratigraphic sequence of 2 m depth. The stratigraphy consists of a sequence of still water sediments, fluvial sediments and, on top, dune sands. The calcareous crust (*cf.* N98/16), found only 125 m away from here, was not present within the stratigraphic section and is also not to be observed in the surrounding 20.000 m². The crust was probably eroded by an old branch of the Kavango river which must have flown through the N98/15 area. The LSA occupation must have taken place at a time when the dunes had already been deposited on the river bank. Stratigraphy:

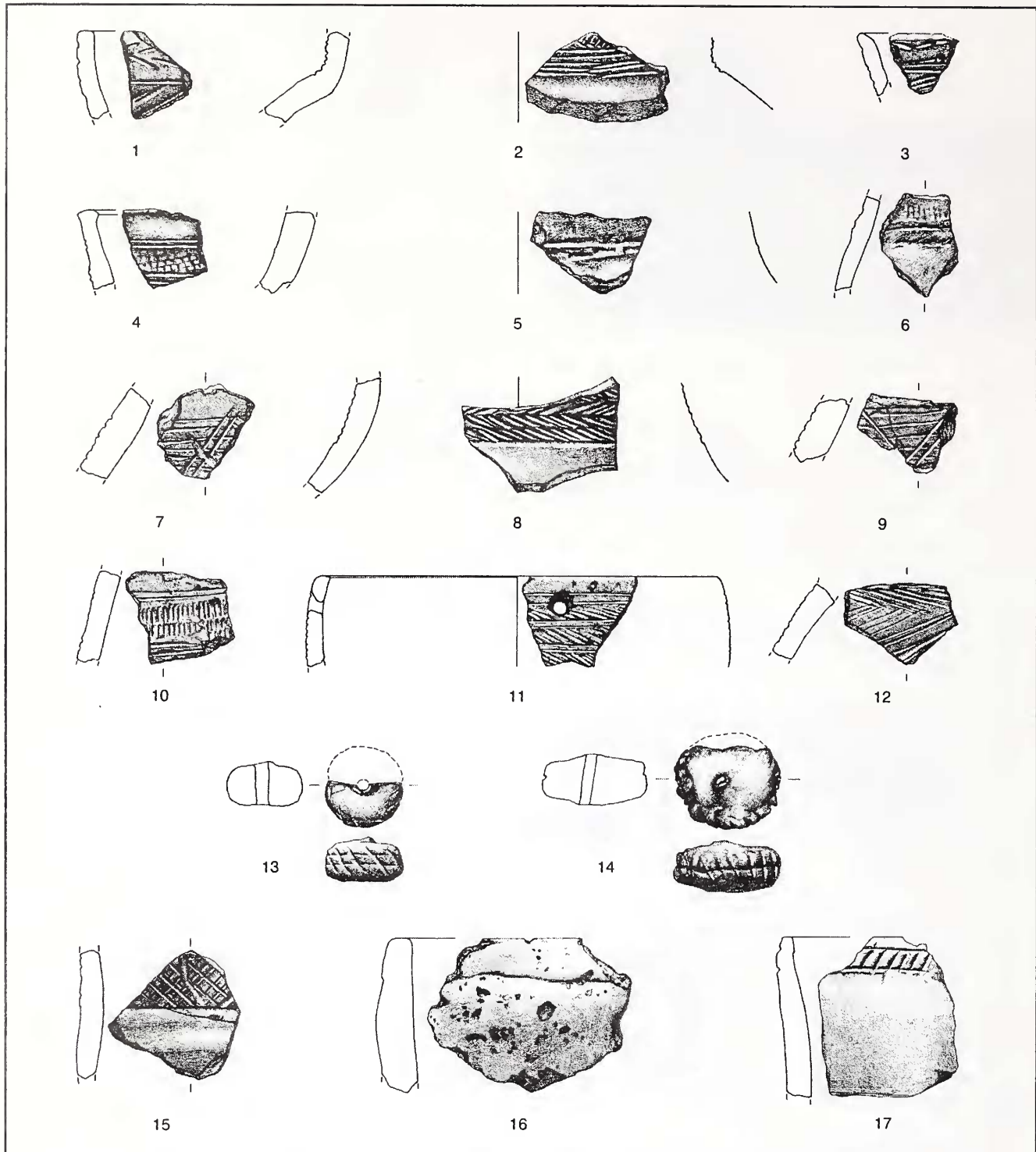


Fig. 11. Pottery from archaeological sites west of Rundu/Namibia. 1-4: Bunja N97/09. 5: Karangana N98/40. 6-24: Ruuga N98/39. Scale: half-size.

- | | |
|---|---|
| 1. Loose, light-yellow sand, 0-12 cm. | 8. Very consolidated, fluvial, brown and white sandy layers, 92-122 cm. |
| 2. Grey, fluvial sand, 13-18 cm. | 9. Laminated, consolidated grey silty layers of limnic origin, 161-163 cm. |
| 3. Slightly consolidated, yellow dune sand, 19-32 cm. | 10. Interchanging grey silty and sandy layers (fluvial and limnic), 164-190 cm. |
| 4. Thin humic band, 33-34 cm. | 14. Site N99/20, Sarasungu-South/Rundu/Rundu District, 19.46E; 17.53S, modern. |
| 5. Consolidated, yellow dune sand, archaeological finds, 35-60 cm. | |
| 6. Consolidated, grey-brown dune sand, nodular, "eisenfleckig", 61-92 cm. | |
| 7. Fluvial, fine-grained, more or less consolidated sandy | |



Fig. 12. Site N98/38. Eroded calcareous crust at the Kavango River bank.

East of the track from Ngandu Lodge to Sarasungu Lodge, in a dunefield with eucalyptus trees, near site N98/15, surface finds such as glass, pottery (Fig. 13), beads and bones indicate the remnants of a former settlement site. A test trench of 3 x 2 m was excavated to a maximum depth of 0,7m. This yielded a posthole and part of a rubbish pit.

15. Site N98/20, Ngandu-East/Rundu/Rundu District, 19°46E; 17.54S, MSA, LSA

450 m East of track between Rundu town and Sarasungu Lodge and 100 m north of sandstone cliff. Erosion channel in an eroded bank along the Kavango River. Natural 2 m high section uncovered by the river. Homogenous, loose, grey sand with stones and pebbles. The sediment does not show any layers. 0,4-0,8 m below surface some stone artefacts of MSA and LSA (chips, flakes, backed bladelet). Surface collection.

16. Site N98/21, Ngandu-East/Rundu/Rundu District, 19.46E; 17.54S, ESA

410 m East of track connecting Rundu town and Sarasungu Lodge. 50 m west of site N98/20. 100 m north of sandstone cliff in an eroded bank along the Kavango River. Stone artefact scatter of 20 x 20 m. ESA artefacts (handaxe, flakes) from redeposited gravels (Fig. 15). Surface collection (Fig. 2).

17. Site N97/10, Sarasungu/Rundu/Rundu District, 19.46E; 17.54S, LSA

Eastern end of Rundu town, near crossroad to Sarasungu Lodge, 200 m east of the track. Superficial artefact scatter of 10 x 10 m, some eroding from a given profile. LSA assemblage with microlithic segment and flakes. Surface collection.

18. Site N97/11, Sarasungu/ Rundu/Rundu District, 19.46E; 17.54S, LSA

300 m East of N97/10. Single find of a microlithic segment of chalcedony. Surface collection.

19. Site N98/23, Sarasungu/Rundu/Rundu District, 19.46E; 17.53S, modern

10 m South of the track between Rundu and Sarasungu Lodge, 200 m south of the Lodge. 2 x 2 m artefact scatter with recent pottery (Fig. 16). Surface collection.

20. Site N97/12, Rundu/Rundu District, 19.46E; 17.54S, LSA

800 m East of N97/10 at the eastern entrance of Rundu town. Profile section which extends to N97/10. Small artefact scatter 1 x 1 m above the profile. A microlithic segment and a flake, both of chalcedony. Surface collection.

21. Site N98/24, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, MSA

On the southern banks of Kavango River, 50 m east of the abandoned police station. Artefact scatter of 50 x 30 m. Several quartzite flakes of MSA. The quartzite raw material was taken from huge quartzite boulders incorporated in a calcareous crust which is exposed near the site, on both banks of the Kavango River. Surface collection.

22. Site N98/25, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, LIA

Sand dune on the Kavango River bank, 1 km east of Sarasungu Lodge. Loose 5 x 5 m artefact scatter with slag and pottery (Fig. 16). Several fireplaces were visible. 10 m east of the site another fireplace with some potsherds. Surface collection.

23. Site N98/28, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, modern

On the southern banks of Kavango River, 100 m west of site N98/27 and marked by the remnants of a small house. Personal communication by neighbours identified the ruin as remnants of a military post which was erected after displacement of the former occupants of the area in the 1970's. The archaeological site, 7 m west of the ruin, is a stone knapping pile of 3 x 4 m with abundant quartzite artefacts. Among the artefacts are no formal tools, but chips, chunks, flakes and cores. The artefacts represent stone artefact production of very recent age. Surface collection.

24. Site N98/27, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, LIA

Sand dune on southern bank of Kavango River. 100 m east of site N98/25. 250 x 50 m Area cleaned of vegetation by burning. Artefact scatter of 50 x 30 m with potsherds (Fig. 16). In short distance ruins of a stone house. Surface collection and excavation of a small test trench in order that datable material be collected. For Radiocarbon date see Table 4.

25. Site N98/29, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, modern

Sand dune on southern bank of Kavango River. 100 m East of site N98/27. Two artefact scatters, each 20 x 30 m with potsherds. Surface collection.

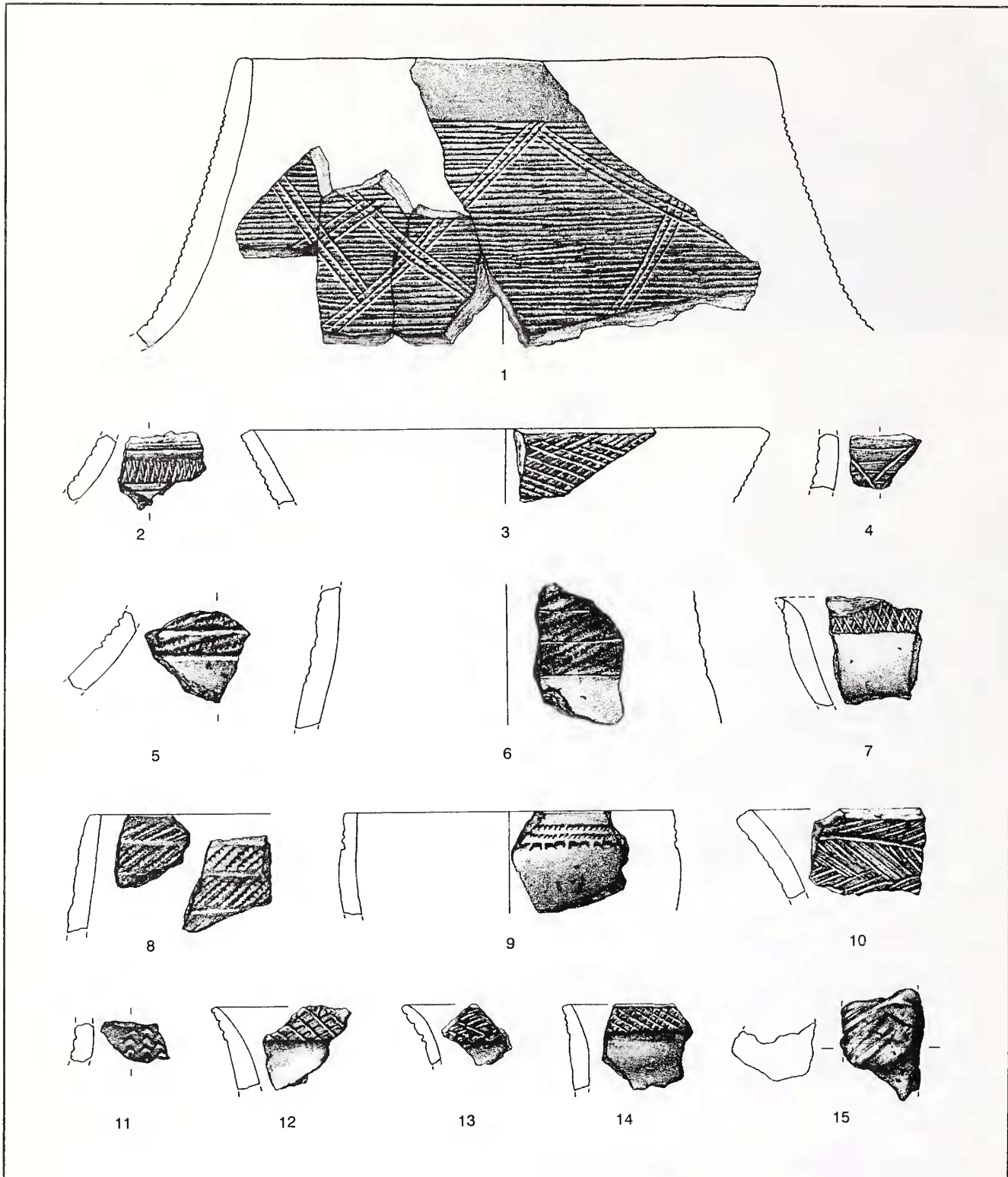


Fig. 13. Pottery from archaeological sites west of Rundu/Namibia. 2-15Kapako N99/21. Pottery from Rundu town. 1: Sarasungu N99/20. Scale: half-size.

26. Site N98/33, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, modern

Sand dune on southern bank of Kavango River. Area of 20 x 20 m cleaned of vegetation. Two artefact scatters, both covering an area of 3 x 3 m, at 10 m distance from each other. Pottery (Fig. 16) and stone artefacts. Both artefact scatters are centred around fireplaces. Relation between

fireplaces and artefact scatters remains unclear. Eucalyptus plantation at 20 m from the site. Surface collection.

27. Site N98/26, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, ESA, IA

C. 200 m South of Kavango River, 30 m north of a Eucalyptus plantation, 1 km east of a police post. Loose

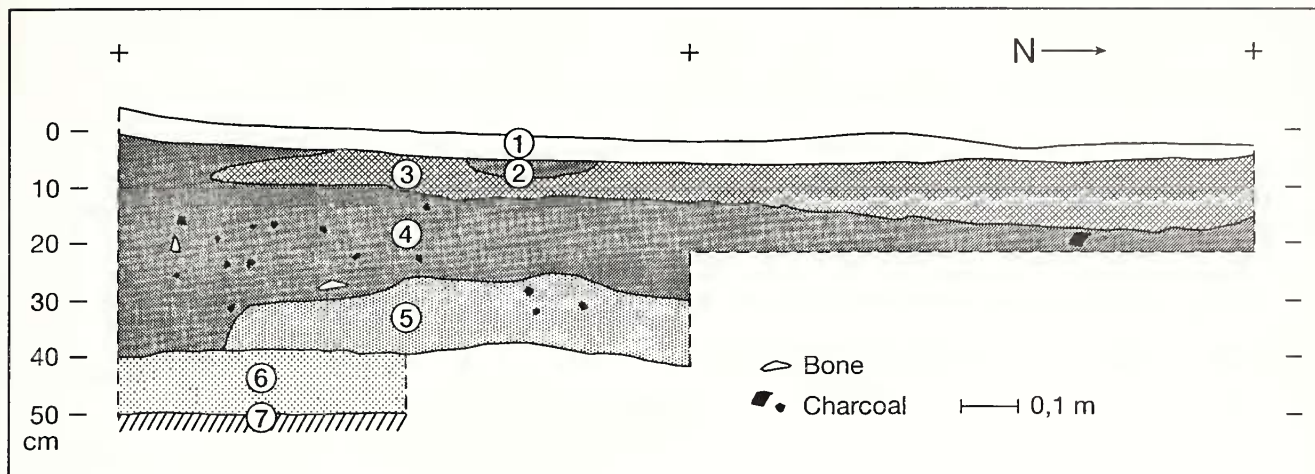


Fig. 14. Profile section of test trench at site N99/21.



Fig. 15 Site N98/21 near Rundu. Artefacts eroding from redeposited gravels.

artefact scatter of 10 x 5 m. All along the river bank exposed remnants of a calcareous crust. This served as raw material source for quartzite nodules use for the production of stone artefacts as found on the site. Two ESA flakes and undecorated pottery. Surface collection.

28. Site N98/31, Immigration Office/Rundu/Rundu District, 19.47E; 17.52S, LSA

Sand dune on the southern river bank of Kavango river. Single stone artefact (core). The dune is at a distance of 50 m from the present course of the river. Surface collection.

29. Site N74/2, / Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA (Fig. 17).

Beatrice Sandelowsky's excavation of 1974 (Sandelowsky 1979). The test trench near Vungu Vungu dairy delivered a stratigraphic sequence with one archaeological horizon rich in pottery and bone fragments. This site is thoroughly described in Sandelowsky's 1979 paper.

The pottery, with its characteristic bands of cross-hatched incisions, gave the name to the "Vungu Vungu Type" of LIA pottery. Sandelowsky's excavation yielded a radiocarbon age for this pottery of AD 1630 +45 (Pta-

236). The Vungu Vungu group of sites, including the following catalogues entries 27-36 is currently under analysis and will be published separately by Eileen Kose, Cologne.

30. Site N96/3, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

Eastern part of the Vungu Vungu dairy area and east of B.Sandelowsky's excavation (Sandelowsky 1979). Loose artefact scatter of 60 x 400 m. Numerous recent disturbance connected with military activity.

Within the N96/3 area four different areas have been defined: N96/3-1; N96/3-2; N96/3-3; N96/3-4 (=N98/32-2). Activities on the site include surface collection and test excavations. Finds: iron slag, pottery, stone artefacts, bone, charcoal.

31. Site N98/37, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

C. 200 m East of the pump station of Vungu Vungu dairy on the southern bank of Kavango River. Iron slag, potsherds (Fig. 18), core. Surface collection.

32. Site N98/36, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

C. 250 m East of the pump station of Vungu Vungu dairy on the southern bank of Kavango river. Potsherds (Fig. 18). Surface collection.

33. Site N98/35, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

C. 50 m West of site N98/32. 20 x 8 m large pit. Erosion channel. Potsherd. Surface collection.

34. Site N98/32, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

Area of erosion parallel to Kavango river, 10 m west of large erosion channel (Fig. 19) running to the river from south to north. 7 x 4 m Artefact scatter with fireplace. A test trench was excavated around the remnants of an iron

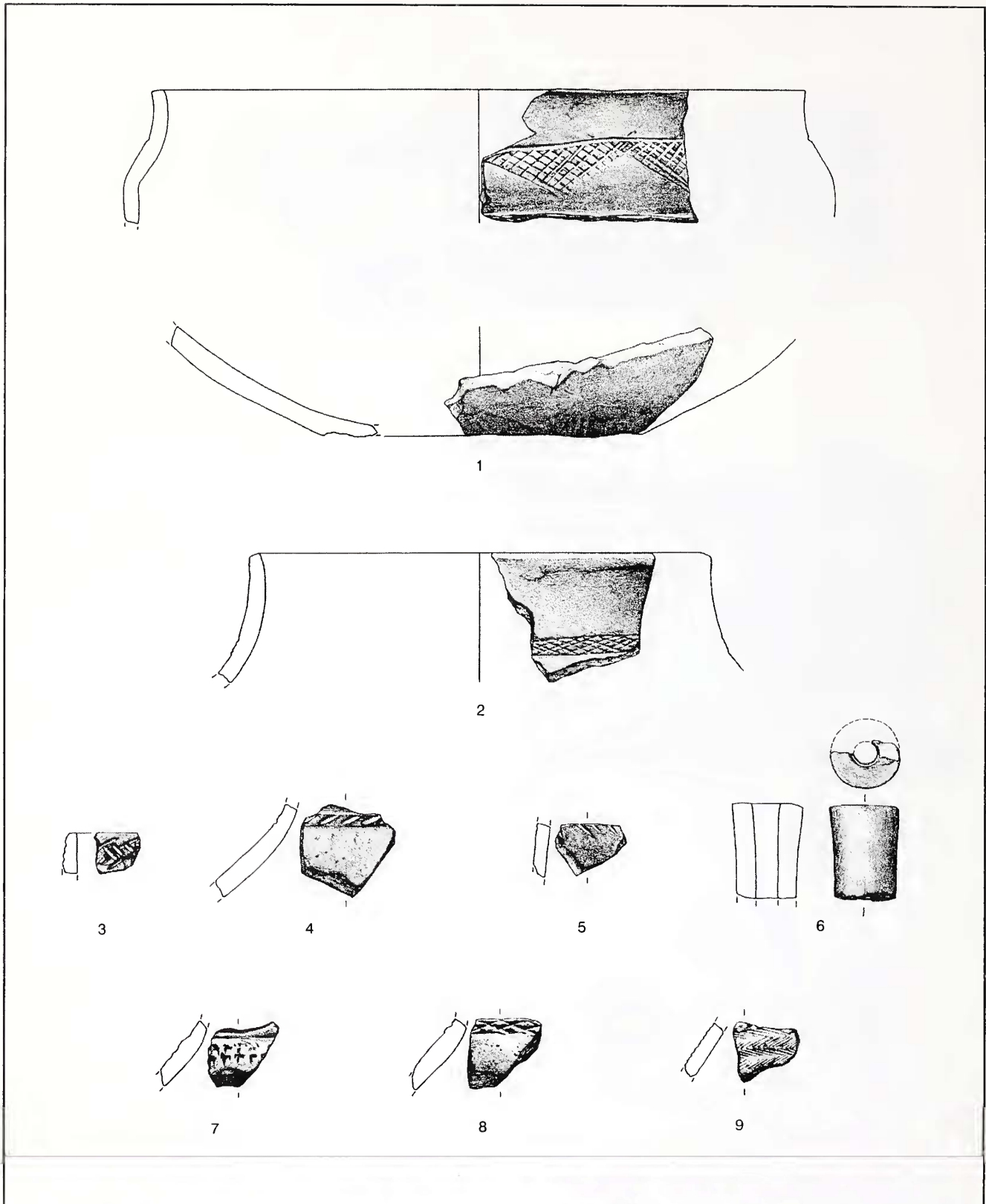


Fig. 16. Pottery from archaeological sites near Rundu/Namibia. 1 Sarasungu N98/23. 2: Rundu Immigration office N98/25. 3-6 Immigration office N98/26 (6: clay pipe). 7-9 Immigration office N98/33. Scale: half-size.

furnace (Fig. 20). Iron slag, ostrich eggshell bead, bone. The pottery, with bands of incised criss-cross patterns, gave the name to the Vungu-Vungu Type (Figs 18-21). For Radio-carbon dates see table 4.

35. Site N98/30, Vungu Vungu dairy/ Rundu District, 19.51E; 17.52S, LIA

Area of erosion parallel to Kavango river. 20 m east of large erosion channel. 30 m east of site N98/32. 10 x 4 m

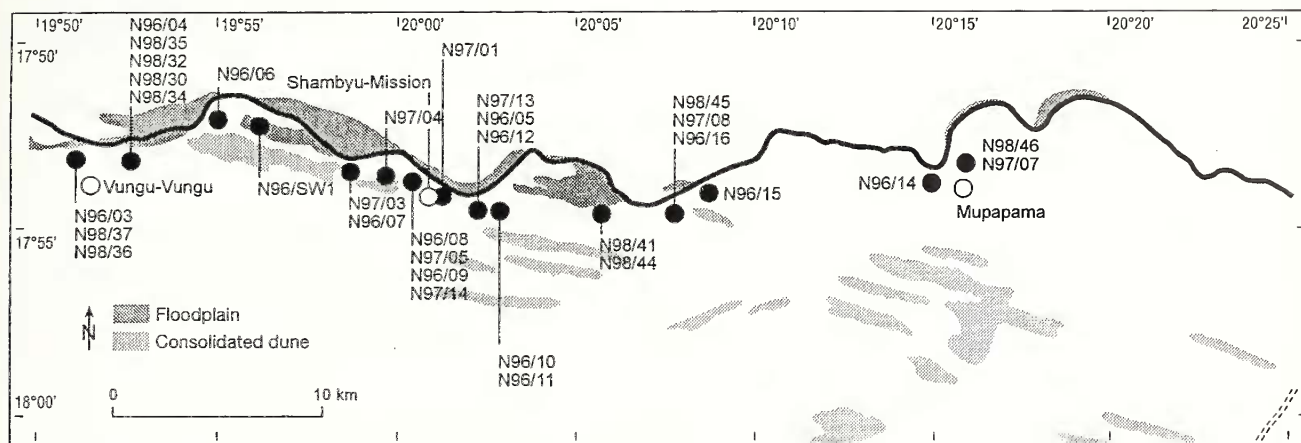


Fig. 17. Rundu District, Namibia, detailed Map B (cf. Fig. 7). Archaeological sites east of Rundu, between Vungu-Vungu and Mupapama.

dense artefact scatter. Iron slag, bone, stone artefacts, pottery (Fig. 21-22). Surface collection.

36. Site N98/34, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

Area of erosion on the southern bank of Kavango river, 150 m west of the dairy area. 70-80 m east of erosion channel (cf. N98/30 and N98/32). Dense artefact scatter of 15 x 8 m. Abundant iron slag, remnants of iron stove, pottery, stone artefacts. Surface collection.

37. Site N96/4, Vungu Vungu dairy/ Rundu District, 19.51E; 17.53S, LIA

0,4 m High erosion step on alluvial sand, sandy, humiferous horizon with pottery. 30 x 2 m artefact scatter. Pottery (Fig. 21), charcoal, stone artefacts. Surface collection.

38. Site N96/6, Vungu Vungu dairy/ Rundu District, 19.54E; 17.51S, LIA

Slight hill with trees. 10 m south of the river, ashy horizon eroding from the slope. Charcoal, pottery. Four different artefact scatters with pottery, charcoal and tuyère. Surface collection.

39. Site N96/SW1, Rundu District, 19.56E; 17.52S, LIA

Southern bank of Kavango river, 10 m south of the river. 300 m East of small island. 15 m East of erosion channel. 5 x 5 m Artefact scatter. Pottery, bones. Surface collection.

40. Site N97/03, Shambyu-Ngone/Rundu District, 19.58E; 17.53S, ESA

C. 30 m North of the river shore, 0,5 - 0, 8 m under water, in front of small island. Heavily eroded stone artefacts with water polish. For quartzite handaxes, two cores. Surface collection.

41. Site N96/7, Shambyu/Rundu District, 19.58E; 17.53S, unclassified

West of Shambyu Mission, flat hill with area of erosion along the river. 0,7 m thick grey layer on yellow, sandy substrate. Artefacts. Surface collection.

42. Site N96/8, Shambyu/Rundu District, 20.01E; 17.54S, LIA

1,28 km West of Shambyu Mission, 6-8 m high slope along the Kavango river. Possible furnace site. Large iron slags (Ofensau) within a 20 x 60 m slag scatter. No other archaeological finds. Surface collection.

43. Site N97/04, Shambyu/ Rundu District, 19.59E; 17.53S, ESA

On the slight slope of the southern river bank of Kavango River, c. 800 m west of the Shambyu Mission buildings, a single handaxe was found. Surface collection.

44. Site N97/14, Shambyu/Rundu District, 20.00E; 17.54S, LIA

The site is about 200 m west of site N97/05. On the southern bank of Kavango River, c. 800 m south of the present river, circular structures indicate a former village site with an artefact scatter of 40 x 40 m. Undecorated and decorated pottery of the Vungu-Vungu type have been found. Surface collection.

45. Site N96/9, Shambyu/Rundu District, 20.00E; 17.54S, IA

Undecorated rim sherd was collected c. 1 km south of Kavango River. Surface collection.

46. Site N97/05, Shambyu/Rundu District, 20.00E; 17.54S, ELSA, LSA

The site called Otjikoto is 500 m west of Shambyu mission on the river bank. Archaeological artefacts were eroded from an old river bank consisting of red sand and

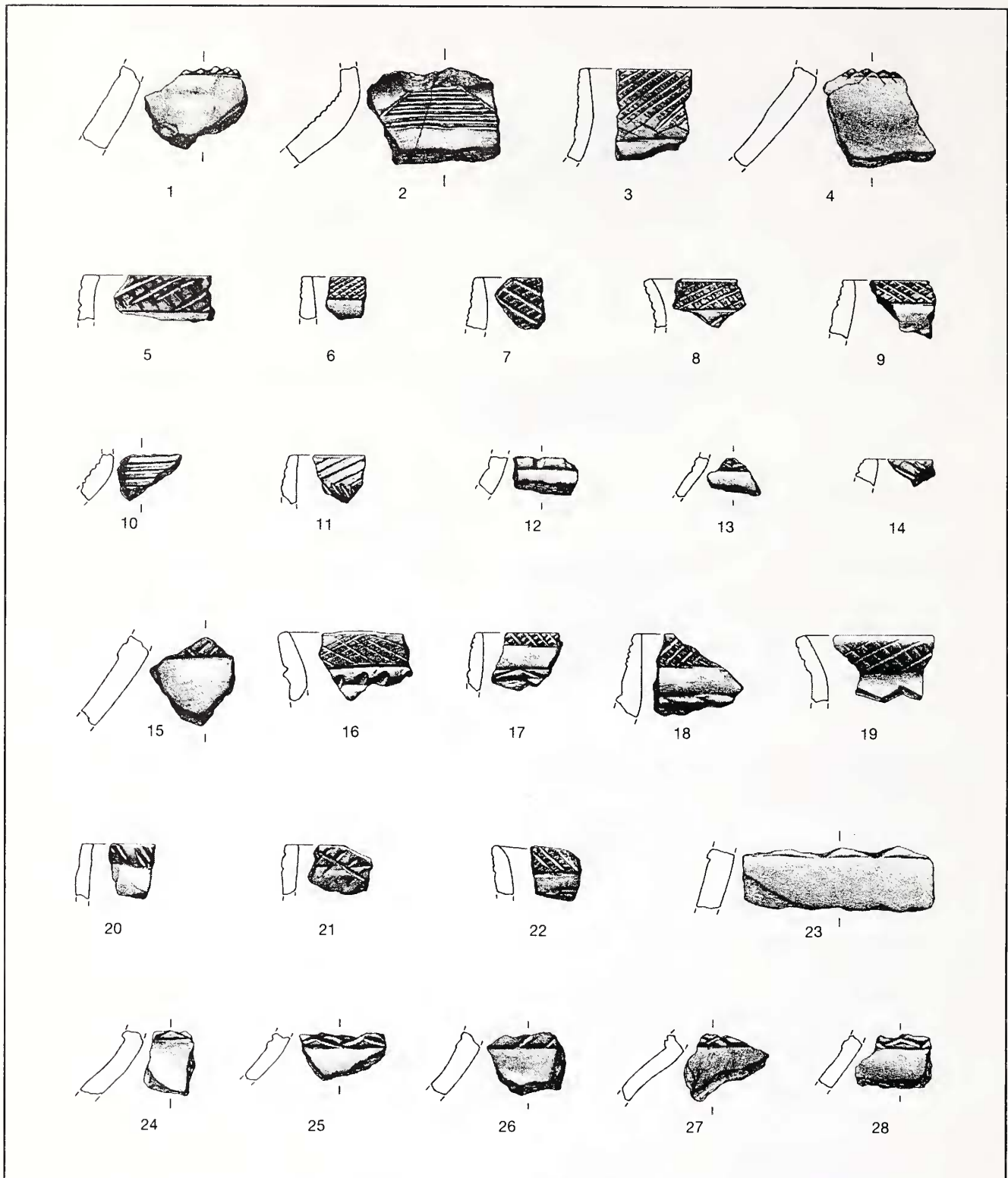


Fig. 18. Pottery from archaeological sites east of Rundu/Nambia, near Vungu-Vungu. 1 Vungu-Vungu N98/37. 2: Vungu-Vungu N98/36. 3-28 Vungu-Vungu N98/32. Scale: half-size.

underlying gravel. The river bank is 5-6 m high, at a distance of 250 m - 300 m from the present course of the river. Among the artefacts are micro-segments, sometimes burned, blade fragments, cores, flakes, and numerous chunks made of quartzite. Surface collection.

47. Site N97/01, Shambyu Catholic Mission/Rundu District, 20.00E; 17.54, LSA, IA

On the southern banks of Kavango River, east of the Mission building and in the mission's garden, an artefact scatter of 10 x 2 m was localised. Undecorated pottery,



Fig. 19. Site Vungu-Vungu N98/32. Excavation surface with remnants of iron melting furnace.

stone tools (including a microlithic segment of chalcedony) and unretouched artefacts (including a blade of chalcedony). Surface collection.

48. Site N97/13, Shambyu/Rundu District, 20.02E; 17.54S, LSA, IA

Area 1: Near the slight slope of the southern bank of Kavango River, 1,5 km east of Shambyu Mission between the tombs of Chief Mushinga and Chief Bomagandu, one area of dispersed artefacts and one dense artefact scatter were identified (50 x 30 m).

Remnants of a former Iron melting site were found: iron slag, iron ore and tuyere fragments. Decorated and undecorated pottery was also found. The site is located near to a former Royal Kraal which existed until the time of Chief Mbangendu in the 1940's.

Area 2: C. 7 m Southwest of the tomb of Chief Mampa Mushinga and at the western fringe of an iron melting site, an artefact scatter was identified. The iron melting site lies on red, ferrous gravel layers covered by calcretes.

The site had previously been identified in 1996, but only in 1997 were some microlithic segments found along side other stone tools, unretouched stone artefacts and decorated and undecorated pottery. Surface collection.

49. Site N96/05, Shambyu/Rundu District, 20.02E; 17.54S, LIA

Artefact scatter (300 x 100 m) on the river bank c. 1, 5 km east of Shambyu mission. Iron slag, pottery, quartzite artefacts. Furnaces (Ofensau). At the eastern periphery of the area, near a small cemetery, the tomb of chief Mbanbangandu. Among the artefacts are decorated and undecorated sherds (Fig. 22), retouched and un-retouched stone artefacts, bones, ostrich eggshell beads and charcoal. The site was revisited in 1998 and fragments of tuyeres found, thus indicating iron smelting. Surface collection.

50. Site N 96/12, Shambyu/Rundu District, 20.02E; 17.53S, unclassified

C. 150 m SSW of Kavango river near the chief's tombs.

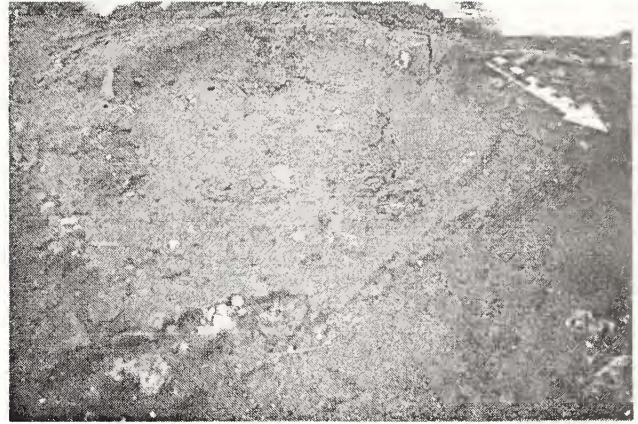


Fig. 20. Site Vungu-Vungu N98/32. Excavation surface with remnants of iron melting stove.

Artefacts eroding from the river bank. Stone artefacts. Surface collection.

51. Site N96/10, Shambyu/Rundu District, 20.03E; 17.54S, unclassified

Stone artefacts and pottery from erosion channel 1,5 km north of Kavango River. Surface collection.

52. Site N96/11, Shambyu/Rundu District, 20.03E; 17.53S, unclassified

C. 200 m North of Kavango river. 10 x 10 m pottery sherd scatter on dune. Surface collection.

53. Site N98/41, Shambyu/Rundu District, 20.05E; 17.54S, MSA, IA, modern

Artefact scatter (50 x 50 m) near old river bank of Kavango river. Levallois flakes (MSA) and pottery, iron slag and modern cans indicating a farm site. Surface collection.

10.554. Site N98/44, Shambyu/Rundu District, 20.05E; 17.54S, LIA

West of a modern farmsite at Tjæ, on a Kalahari sand dune covered by ferrous crust. Under the crust is a calcareous crust with nodules of sandstone containing iron. Within the overlying ferrous crust nodules of iron ore are to be found over an area of 150 x 200 m. Numerous accumulations of debris indicate the former iron exploitation of the area.

55. Site N98/45, Shambyu/Rundu District, 20.07E; 17.54S, ESA, MSA, IA

The site (70 x 200 m) is on the southern bank of Kavango river close to the Shambyu-Nyangana road. Iron exploitation area with pits near sand stone formation (Fig. 23). Heaps of debris from quarry work (Fig. 24). Finds of iron ore. No related archaeological finds but ESA and MSA stone artefacts. Surface collection.

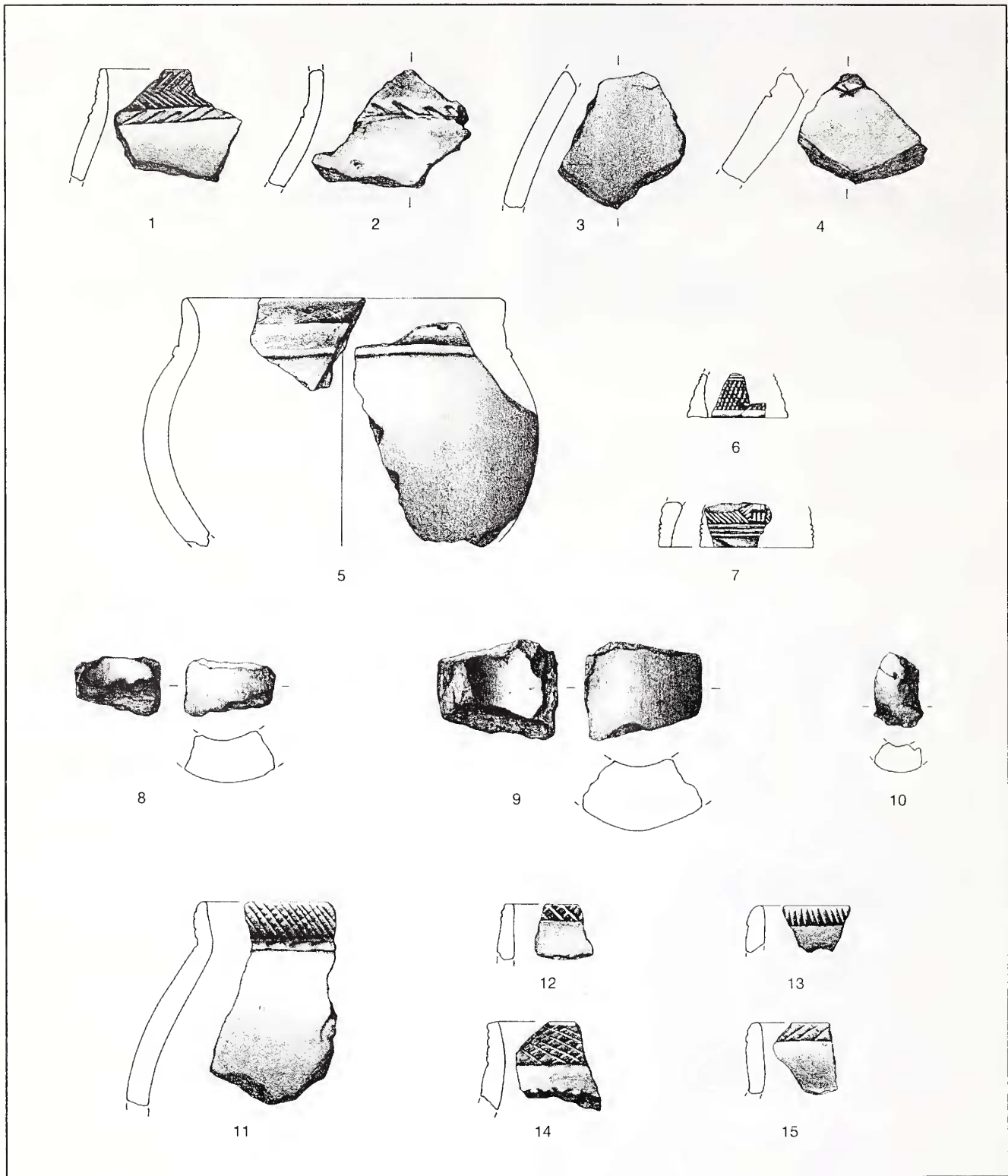


Fig. 21 Pottery from archaeological sites east of Rundu/Nambia, near Vungu-Vungu. 1-10 Vungu-Vungu N98/32 (6-7 clay pipes, 8-10 tuyeres). 11: Vungu-Vungu N96/4. 12-15 Vungu-Vungu N98/30. Scale 2/3.

56. Site N97/08, Katondo/Shambyu/Rundu District, 20.07E; 17.54S, LSA

Stone artefact scatter near gravel pit. Surface collection.

57. Site N96/16, Shambyu/Rundu District, 20.07E; 17.54S, unclassified

Numerous quartzite artefacts from a steep slope 50 m SE

of Kavango River. Surface collection.

58. Site N96/15, Shambyu/Rundu District, 20.08E; 17.53S, LIA

Artefact scatters near gravel pit. Pottery and stone artefacts. Surface collection.

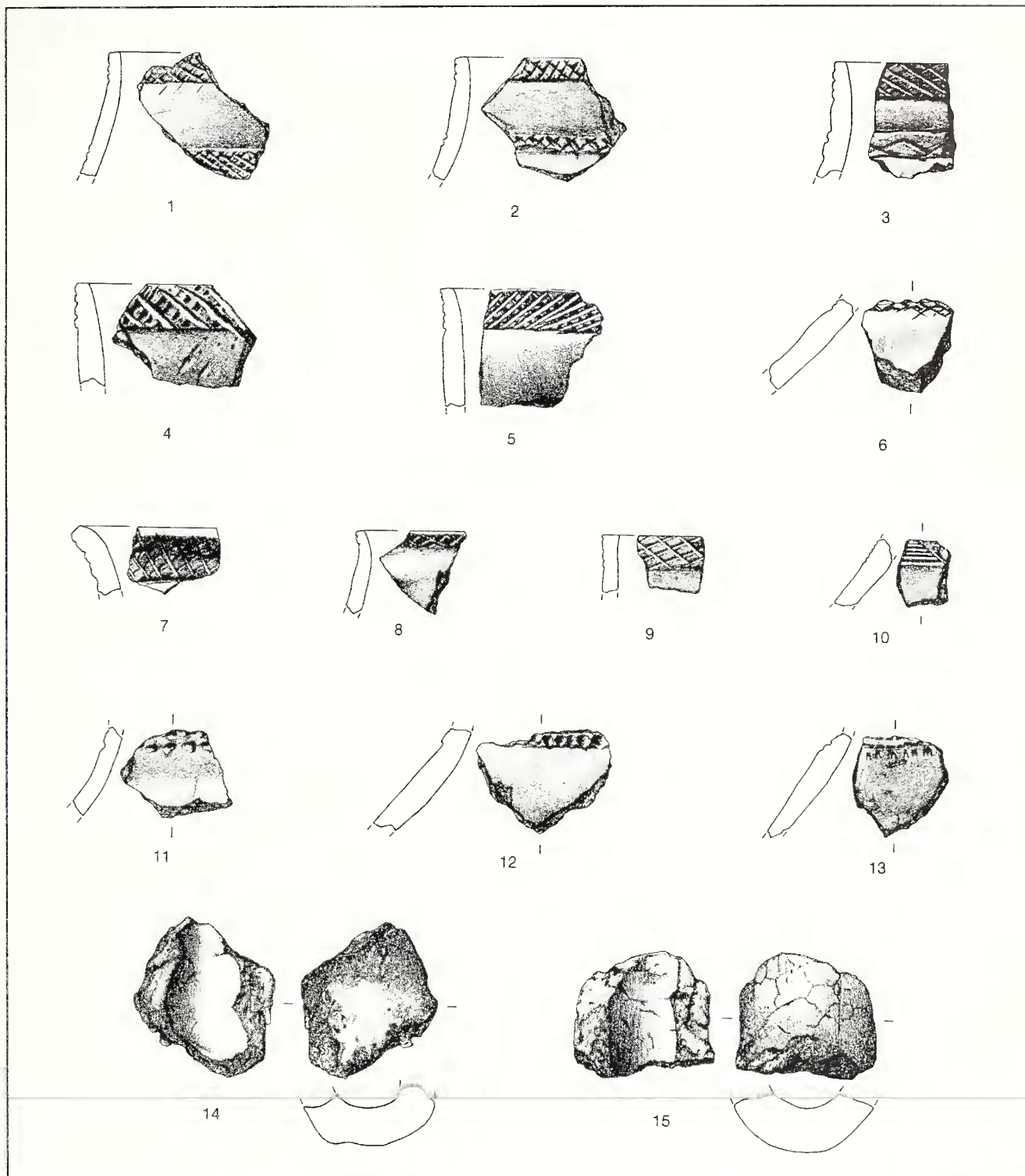


Fig. 22 Pottery from archaeological sites east of Rundu/Nambia, between Vungu-Vungu and Shambyu mission. 1-2 Vungu-Vungu N98/30. 2: Vungu-Vungu N98/36. 3-15 Shambyu Mission N96/5 (14-15 tuyeres). Scale 2/3.

59. Site N96/14, Mupapama/Rundu District, 20.15E; 17.53S, unclassified

Large quartzite boulders on a 8 m high eroded slope in the southern bank of Kavango River. 300 m NNW of Mupapama village. Brown, grey-spotted artefacts scatter around the quartzite boulders which served as raw material sources. Surface collection.

60. Site N98/46, Mupapama/Rundu District, 20.15E; 17.53S, MSA, LIA

Iron ore source (more than 600 x 400 m) with exploitation pits and accumulations of debris on the southern bank of Kavango River. Huge quartzite hammer stones from quarry work (Fig. 25). Numerous MSA artefacts on the same site. Surface collection.



Fig. 23. View of iron exploitation site N98/45.



Fig. 24. View of iron exploitation site N98/45. Detail: Debris from quarry work.



Fig. 25. Iron exploitation site N98/46. Stone hammer for quarry work.

61. Site N97/07, Mupapama/Rundu District, 20.15E; 17.53S, LSA, IA (Fig. 26).

Artefact scatter on the southern bank of Kavango River. Red ferrous sand with iron nodules and dissolved fragments of a calcareous crust. Artefacts made of red chalcedony, pottery. Surface collection.

62. Site N96/13, Omatako/Rundu District, 20.28E; 17.57S, LSA, IA

200 m West of where the Omuramba Omatako flows into the Kavango, on the southern bank of Kavango River, near Ndonga village. Stone artefacts and pottery. Surface collection.

63. Site N98/47, Omatako/Rundu District, 20.28E; 17.57S, LSA

Dense 20 x 20 m artefact scatter with microliths on a dune near the mouth of Omuramba Omatako, 50 m south of the Kavango. Numerous formal tools made of indurated shale. Surface collection.

64. Site N98/48, Omatako/Rundu District, 20.28E; 17.57S, ELSA, IA

10 x 5 m Artefact scatter on the eastern bank of Omuramba Omatako to where it flows into Kavango River. Pottery (Fig. 27), chalcedony artefacts. Surface collection.

65. Site N98/49, Shankara/Rundu District, 20.30E; 17.57S, ESA

Gravel pit for road works, 3 km east of the Omuramba Omatako mouth. ESA artefacts of quartzite, two handaxes. The raw material for the ESA artefacts is from a calcareous crust which is now exposed in the gravel pit. As artefacts are to be found in the whole area of present gravel exploitation, the site must be regarded as completely destroyed. LSA finds from the N98/48 site are from the same raw material source. Surface collection.

66. Site N99/15, Hamwiyi/Rundu District, 19.44E; 18.14S, LIA

Fired clay and iron ore nodules, probable remnants of an iron smelting site or furnace, were found in the river bed of Omuramba Fountein, 260 m west of the road Ncaute-Rundu. The area is disturbed by numerous erosion channels. The Forestry Nursery Hamwiyi is close to the site. Surface collection.

67. Site N99/16, Omatako/Rundu District, 20.06E; 18.14S, LSA

Stone artefacts made of chalcedony (redeposited raw material nearby) in front of a steep sandstone escarpment

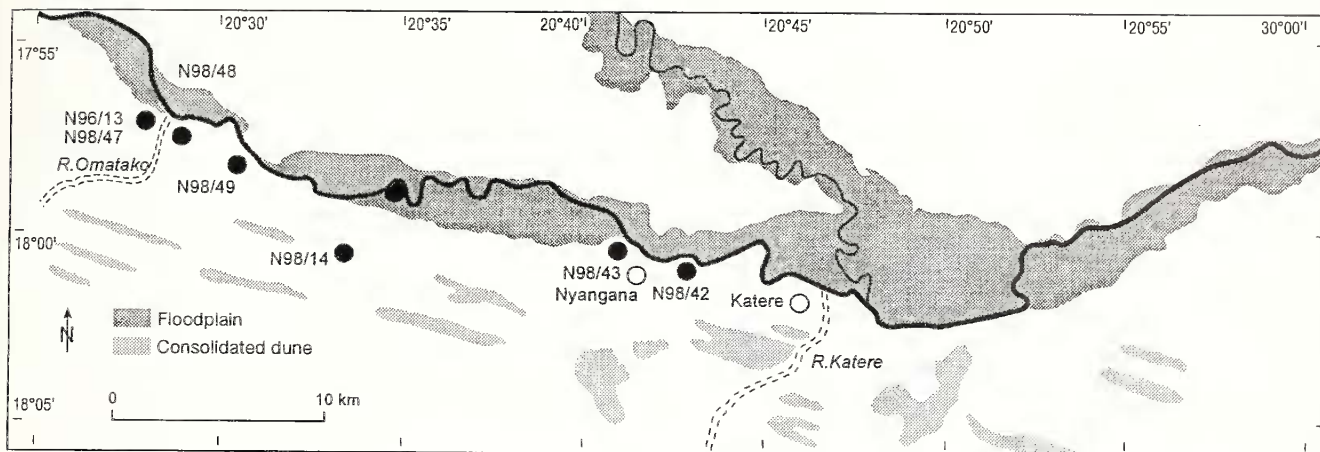


Fig. 26. Rundu District, Namibia, detailed Map C (cf. Fig. 7). Archaeological sites east of Rundu, between Omatako River mouth and Katere River mouth.

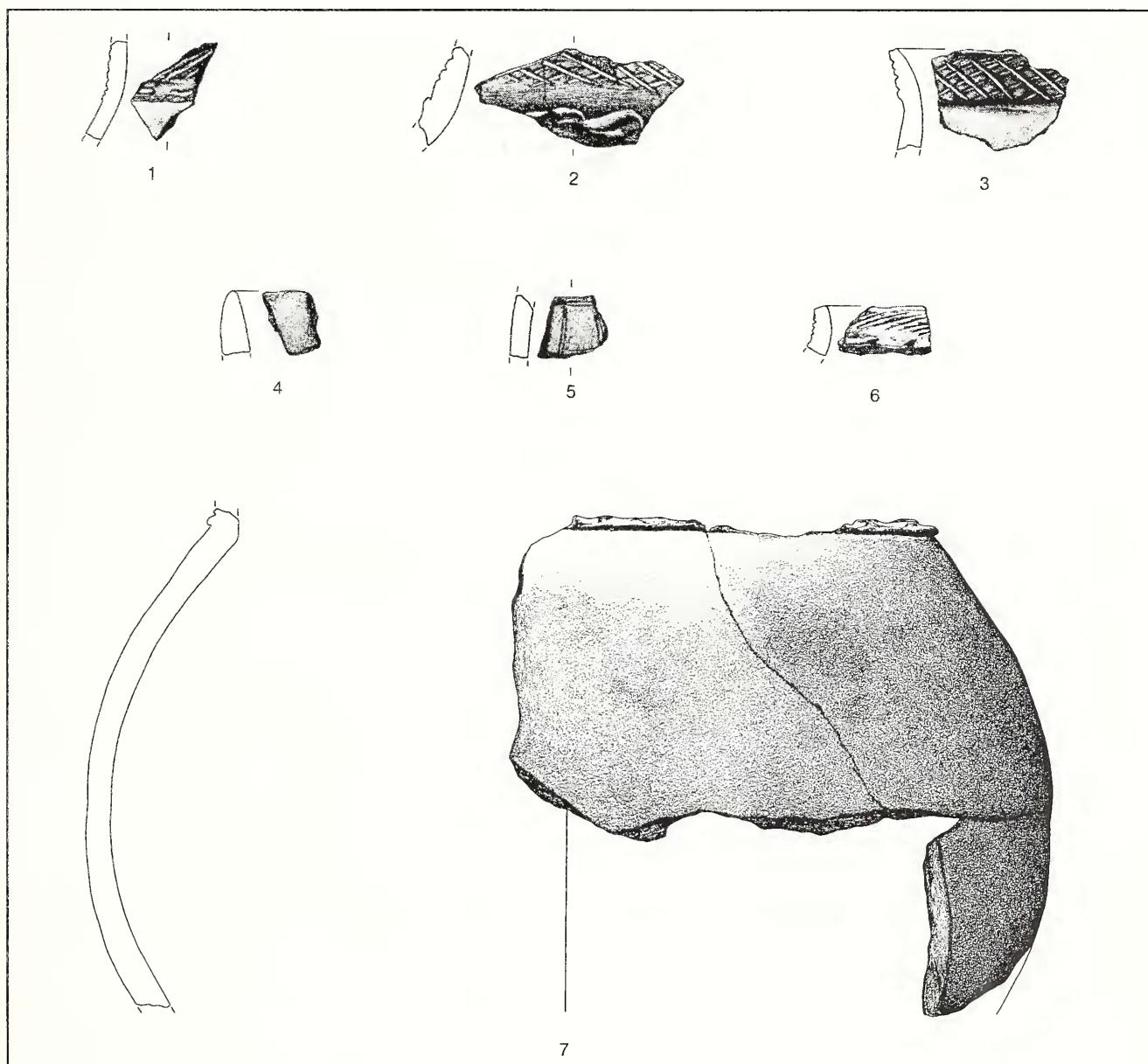


Fig. 27. Pottery from archaeological sites east of Rundu/Namibia, between Omatako River mouth and Katere River mouth. 1: Omatako Mouth N98/48. 2-5,7: Nyangana N98/43. 6: Nyangana N98/42.



Fig. 28 View of the test trench at site N98/43.

near the banks of Omuramba Omatako. The site is north of the track Taratara-Shakambu. Surface collection.

68. Site N99/17, Omatako/Rundu District, 20.07E; 18.12S, LSA

Stone artefacts made of chalcedony were found in front of a sandstone escarpment north of the Taratara-Shakambu Track. In this area abundant sandstone slabs suitable for rock engravings. Intensive search for rock art without any result. Chalcedony artefacts produced from raw material nodules eroded from the underlying aeolic sandstone of which only small remnants can be found. Erosion caused heavy weathering and rounding of debris. Afterwards the weathered debris became stabilized in a Manganese crust. Erosion channel has exposed parts of these Manganese crusts and altered them into gravel which has since become widely dispersed. These gravels occur now as debris cover containing chalcedony nodules. Surface collection.

69. Site N99/18, Omatako/Rundu District, 20.19E; 18.12S, MSA

Near the Taratara Primary School, at the local well on a huge Kalahari dune covering the Omatako aquifer, MSA artefacts were collected, e.g. unipolar blades, a Levallois core, end scrapers on blades and on flakes. Surface collection.

70. Site N98/14, Omatako/Rundu District, 20.32E; 18.01S, MSA

The site is some meters south of the tarred road from Rundu to Divundu, on the back of a fossil dune. Several MSA artefacts were collected. The raw material comes from a freshwater-tuff with quartzite nodules. The inventory comprises side scrapers and large flakes which come from the southern part of a knocking pile which is crossed by the road. Surface collection.

71. Site N99/19, Khaudom/Rundu District, 20.33E; 18.35S, modern

Tamsu, situated in the river bed of the Omuramba Khaudom, is the most important water hole of the region. During summer 1999 it had dried up. Intensive archaeo-

logical prospection around this water hole and around the margin of the whole Tamsu depression yielded very poor results. Some glass beads were the only artefacts found. Numerous giraffe bones are dispersed around the water-hole. In the water hole, a huge section of several meters is exposed, comprising gypsum horizons, muds, fluvial and aeolian sands. Surface collection.

72. Site N98/43, Ndonga/Rundu District, 20.42E; 18.00S, MSA, LIA, modern

The site is 2 km west of site N98/42, c. 55 m north of the gravel pad Katere-Ndonga near the river banks of the Kavango River (Fig. 28) in Ndonga village.

The archaeological finds come both from the surface and from a test trench. On the surface a group of several artefact scatters was recognized. These cover an area of 60 x 30 m. The surface finds comprise decorated and undecorated pottery, stone tools and unretouched artefacts, bones and charcoal. Slags and parts of the wall of an iron stove were also found. Two Levallois flakes were found among the stone artefacts. As some of the finds were eroded from the river bank, a small test trench was also excavated (N98/43//5/5). This yielded three archaeological horizons, the central horizon with a nearly complete pot (see Fig. 29, layer 6 and Fig. 27, 7), bones and charcoal. For radiocarbon dates see Table 4. Stratigraphy (Fig. 29):

1. Loose dark-brown sand.
2. Homogeneous, consolidated brown-yellow dune sand.
3. Dark grey clay lens.
4. Dark grey, sandy humic cultural layer (lens) with charcoal and archaeological finds.
5. Homogeneous, consolidated brown-yellow dune sand.
6. Dark grey, sandy humic cultural layer with charcoal and archaeological finds, large potsherd with intentionally deposited bone and iron inside.
7. Fluvial, dark-brown sand.
8. Dark brown, sandy cultural layer with charcoal and archaeological finds.
9. Fluvial sand, changing brown and grey colours.

73. Site N98/42, Nyangana/Rundu District, 20.43E; 18.01S, modern

The site is situated on the back of a fossil dune (Fig. 30) in Sekoro village. The dune was cut by the Kavango River (c. 200 m south of the Sekoro supermarket). A small number of artefacts are dispersed within an area of 300 x 300 m. Finds include decorated and undecorated pottery (Fig. 27). The artefacts probably indicate an early modern settlement site.

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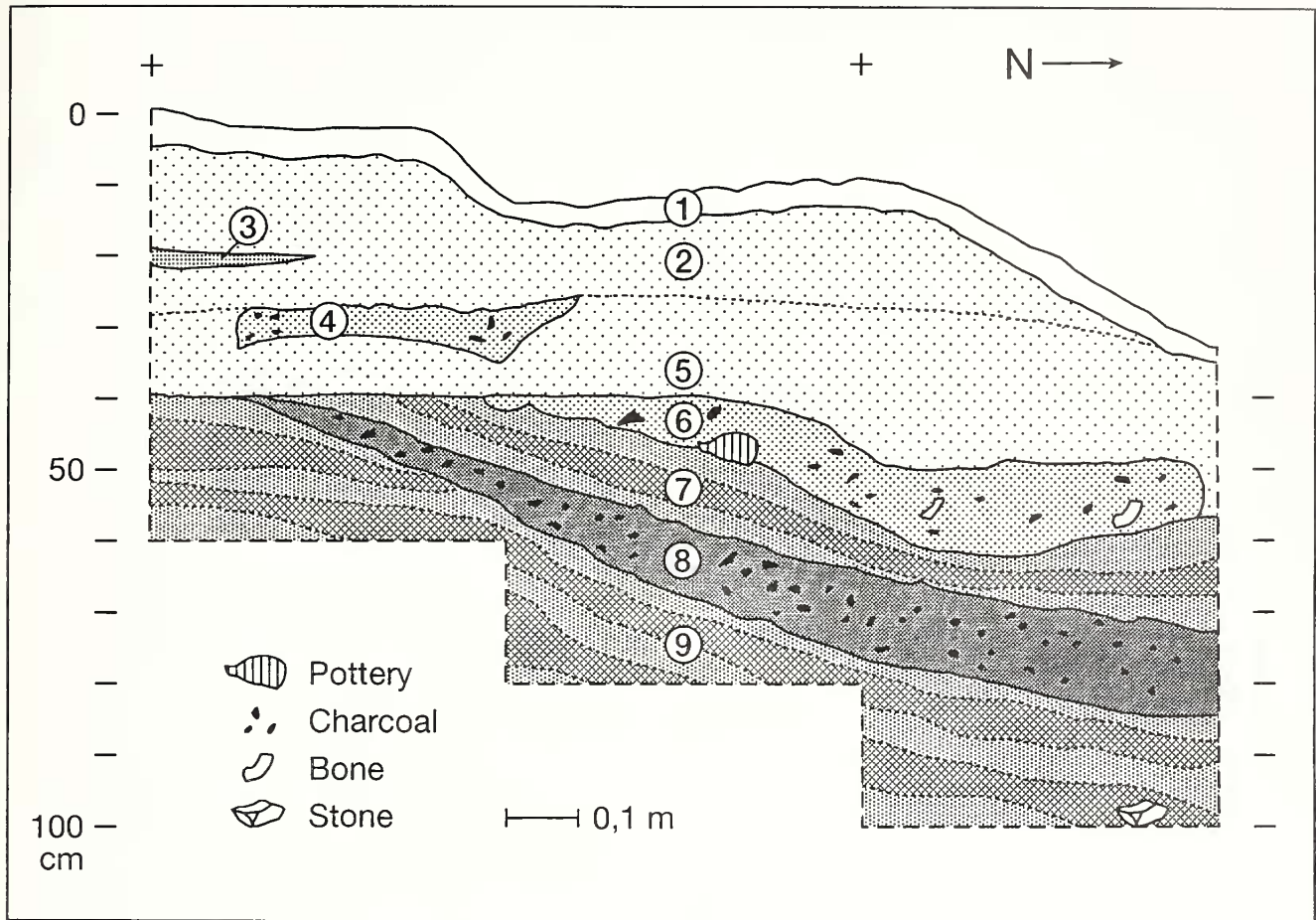


Fig. 29. Site N98/43. Profile section of test trench.



Fig. 30. View from site N98/42 to the west (up the river). N98/42 lies on one of the highest fossil dunes on the river banks.

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