**Field and Technical Report**

# A LATER STONE AGE ASSEMBLAGE FROM CANTEEN KOPJE, NORTHERN CAPE

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## INTRODUCTION

Canteen Kopje has been mentioned in archaeological literature for almost a century because of artefacts which had come to light during exploitation of the Vaal River gravels by diamond miners. It was first registered as a diamond mining site in the 1870s under the name Klip Drift (De Wit 2008). In 1948, the site was declared a national monument due to the richness of its Earlier Stone Age collections (J. Deacon 1993), yet only recently have systematic archaeological excavations been conducted. The majority of this work has focused on the Acheulean finds from the site, especially the Victoria West prepared core industry found in a calcretised alluvial deposit. This is not, however, the only deposit with archaeological significance. A Later Stone Age assemblage has now been discovered in the Hutton Sands overlying the alluvial deposits. This material, which is described here, most closely resembles late Holocene Smithfield assemblages, which is confirmed by radiocarbon dates on charcoal and ostrich eggshell (OES) beads.

Goodwin and van Riet Lowe (1929) first categorised the Later Stone Age (LSA) of southern Africa. In their view, two complexes existed, the Smithfield and the Wilton. Later, Sampson's (1974) findings challenged this idea. They led him to conclude that there are in fact three complexes in the LSA: the Robberg, the Oakhurst and the Wilton (see also Humphreys & Thackeray 1983; J. Deacon 1984a; Mitchell 2002). The Wilton is the most recent complex. Sampson (1974) divided it into four industries: the classic Wilton, the post-classic Wilton, the ceramic Wilton and the Smithfield. J. Deacon (1984a) disagreed with these categories. On the one hand she believes the Interior Wilton and Smithfield are separate complexes but also felt that the LSA consisted of great regional variation and such umbrella terms should be discarded. Instead she spoke of the LSA in terms of temporal periods and included descriptive titles. In this way, the LSA would not be viewed as a homeostatic plateau (H.J. Deacon 1972). Other researchers (e.g. Wadley 1993; Mitchell 2000) added the suffix '-like' to the broader industrial terms in order to indicate assemblage differences during these periods. Others (e.g. Humphreys & Thackeray 1983; Deacon 1984a; Beaumont *et al.* 1995) opted to retain the old type-site names or create new ones (Orton 2006). For the purpose of this paper, we use the broader terms for the LSA but acknowledge the variability within the industries.

The late Holocene in southern Africa is characterised by great cultural diversity (Blundell 2004). During this period, foragers came into contact with herding and farming people (Humphreys & Thackeray 1983; Mitchell 2002; Barham & Mitchell 2008; and see Wadley 1986, 1996). This began a transformation in the foraging economy. While such changes occurred throughout southern Africa (e.g. Dowson 1998; Hall & Smith 2000; Sadr 2002), the outcome, according to Kent (2002), was constrained by site and situational context. Yet, some general trends are noticed. Most prominently, lithic frequencies changed. A general increase in scrapers and corresponding decrease in backed tools occurred across southern Africa. At the same time, trade items in the form of ceramics, glass beads and iron implements began appearing in the LSA record (J. Deacon 1984a; Wadley 1996). Canteen Kopje displays typical features of a site from this period, although its lack of trade items is unusual and may be due to the activities for which the site was used.

Foraging communities occupied the landscape in isolation for much of their history (Mitchell 2002). Yet within the last 2000 years, herding communities began settling in forager territories and entered a network of cultural exchange (Sadr 1998). In the Northern Cape, archaeological evidence suggests a long sequence of herder occupations. The arrival of domesticated livestock is suggested by dates from Spoegrivier Cave, 2105 ± 65 BP (OxA-3862; Sealy & Yates 1994), Blinkklipkop, 1100 ± 40 BP (Pta-2835) and 1120 ± 50 BP (Pta-2840; Humphreys & Thackeray 1983). Other excavated sites which include evidence of domesticates are Little Witkrans and Dikbosch 1. Alas, at both sites the association between the sheep bones and dates is unreliable (Bousman 1998). Sheep bones were also recovered from Wonderwerk Cave (Humphreys & Thackeray 1983; Sealy & Yates 1994).

In addition, eastern Bantu language speakers settled on the landscape (Huffman 1982). The view that Bantu-speaker settlement spread southwest as European colonialists ventured east is an old one, and archaeological evidence throughout the country challenges this notion (see Maggs 1974, 1980; Humphreys 1976). In the Northern Cape, historical records mention Bantu-speaking farmers occupying the area. Van Riebeeck's records in 1661 mention that traders possessing cattle and glass beads were operating along the Orange River (Saunders 1966). These hearsay reports show that, at least by the time Europeans arrived, the Tswana (more specifically the Tlhaping) were trading as far south as the Orange River (Humphreys 1976). In fact, a comparison with Maggs' (1972) Type Z walling and findings at Postmasburg suggests that Bantu-speaking farmers occupied the area from around AD 1650 to 1700 (Humphreys 1976). Areas south and west of Postmasburg, however, are thought to be less suitable for farmers, as suggested by the recent distribution of cattle in the Northern Cape (Maggs 1974); analysis of known farmer as well as herder sites shows much of the Northern Cape as

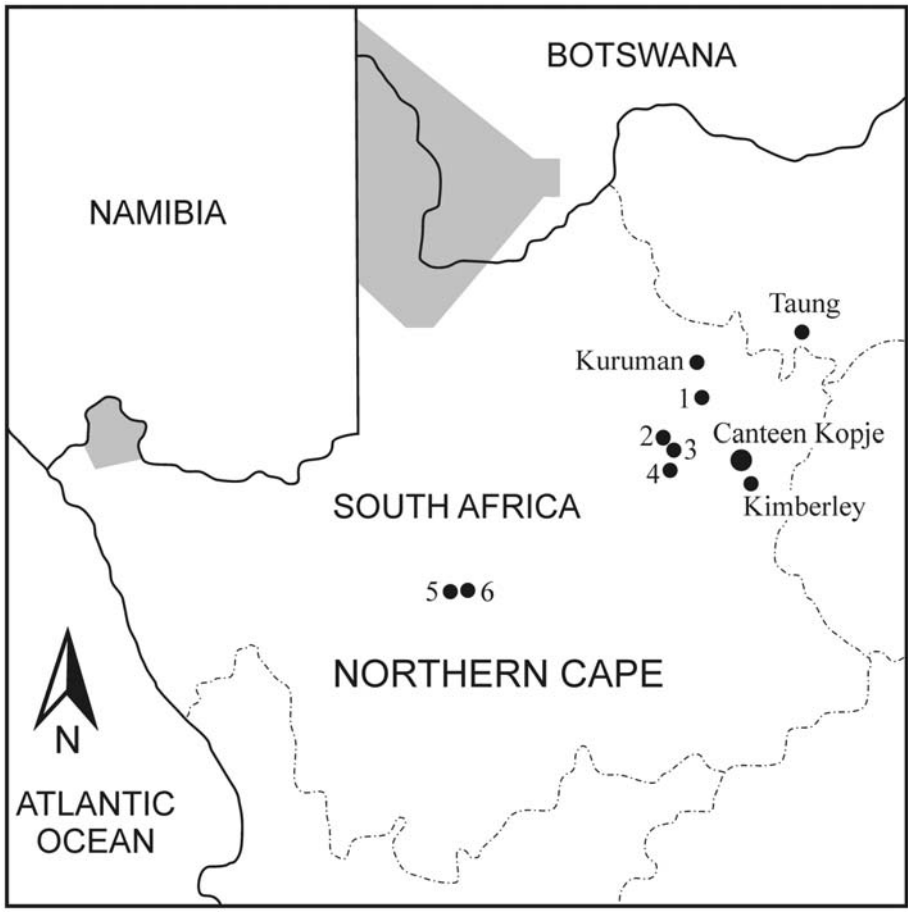


**FIG. 1**. *Location of Canteen Kopje in the Northern Cape Province and other sites mentioned in the text*: (1) *Wonderwerk Cave,* (2) *Doornfontein,* (3) *Blinkklipkop,* (4) *Postmasburg,* (5) *Swartkop,* (6) *Springbokoog*.

unoccupied (see also Klein 1986). It seems arid conditions restricted both the herding and farming occupation of the region.

Canteen Kopje (28°32′30″S, 24°31′52″E; Fig. 1), on the other hand, offers a refuge from the typical short shrub and grassland biome of the Northern Cape (Humphreys & Thackeray 1983). The site's proximity to the Vaal River, some 500 m away, offered people access to a secure water source. Furthermore, raw materials, found in the nearby river gravels, could easily be exploited for tool production. These features made the site ideal for Stone Age habitation since Acheulean times. No evidence of an Iron Age occupation was found at the site.

## EXCAVATION

In the 1980s, Canteen Kopje received renewed attention from archaeologists, who primarily investigated the alluvial Acheulean-bearing deposits but also noted the presence of Fauresmith (late Acheulean) and Middle Stone Age (MSA) in the Hutton Sands, along with surface finds of LSA (Beaumont & McNabb 2000). In 2007, a Wits University team began excavations in Pit 6 (Fig. 2; Gibbon *et al.* 2008). Three years of work in this location have now produced a 7 m stratified sequence consisting of a miners' dump at the surface capping the Hutton Sands aeolian deposit with LSA artefacts, below which is a Middle Stone Age (MSA) assemblage, possibly followed by a Fauresmith assemblage toward the base of the sands. Underlying the sands and within >5 m of alluvial gravels are Victoria West Acheulean artefacts, underlain in turn by an earlier Acheulean industry, which G.M. Leader and K. Kuman are currently analysing. The site stratigraphy and regional geomorphology are being investigated by R.J. Gibbon and D. Granger (Purdue University). Dating of the gravels by the cosmogenic nuclide burial technique is also underway by Gibbon and Granger. The Vaal River alluvial deposits have ideal site formation and burial conditions for successful dating with this method, as has been demonstrated elsewhere in the Rietputs Formation near Windsorton (Gibbon *et al.* 2009).

The focus of this paper is the LSA material, which occurs from 70 to 130–140 cm below datum. The excavation was positioned along the north wall of an old mine pit (Fig. 2), which provided easy access and a near-complete profile of the full sequence of deposits exposed above the water table. A circular excavation grid was designed by Gibbon because of space limitations and safety requirements, allowing also for the maximum exploitation of the deposit (Fig. 3). The circle is subdivided into nine inner sectors labelled A to I and specifically designed to spirally step down 1 m per sector. There are a further five outer sectors, E2 to I2, to ensure that no wall exceeds 4 m in height.

The excavation was carried out in spits of 10 cm, with all sediments sieved through both 4 mm and 2 mm mesh sieves. The Hutton Sands vary in thickness from 1 m to 1.4 m. In Pit 6, the sands are unconsolidated and have no visible stratigraphic structure. According to De Wit (2008), the sands have several faintly mottled horizons in other pits, but none was observed in our excavation.

## THE LSA LAYER

In total, 8363 lithic artefacts were analysed for the LSA levels (70–140 cm below datum). There are a few LSA formal tools in the 140–150 cm level, but this spit appears to include an interface with the underlying cultural unit as some diagnostic MSA pieces are also present. This might be from (a) mixing

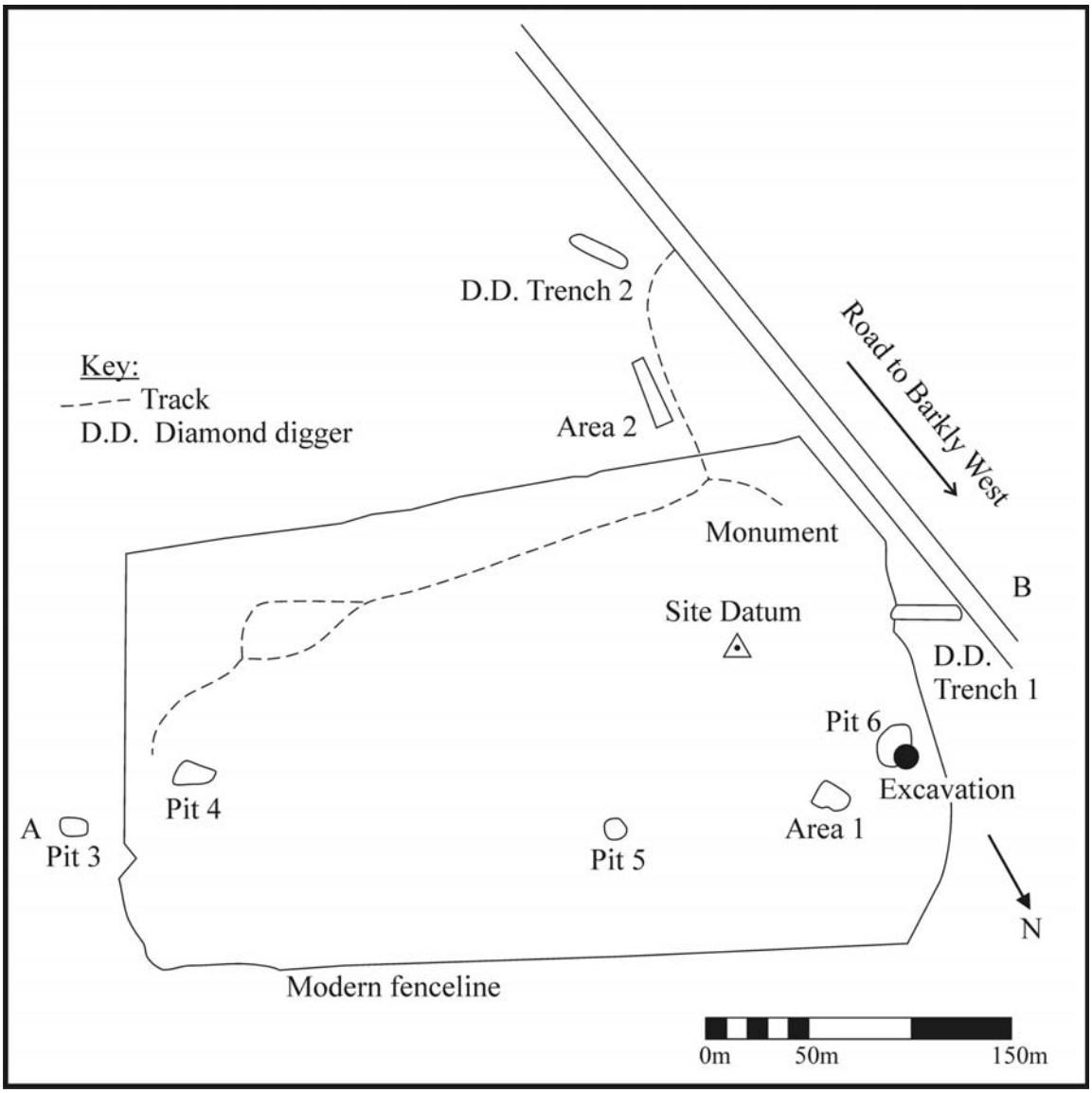


**FIG. 2.** *A plan of the Canteen Kopje site, with the current excavation located in Pit 6 (after McNabb 2001).*

between the assemblages due to post-depositional movement (possibly from bioturbation), (b) the large spit sizes, (c) the lack of stratigraphic detail or (d) the slope of the deposit. Therefore, artefacts from the 140–150 cm level are excluded from this analysis. Both Humphreys and Thackeray's (1983) and J. Deacon's (1984b: 369–400) typological schemes were used to analyse the artefacts. Deacon's (1984b) scheme takes into account the LSA sequence of the southern Cape. The framework she uses can easily be compared to the very similar framework of Humphreys and Thackeray (1983) whose work deals with the Northern Cape LSA sequence. J. Deacon (1972) defined formal tools as artefacts that possess secondary working intended to produce a functional and/or standardised form. For the purpose of this research only the formal tools were analysed to determine which industry is represented at the site (for a more extensive analysis see Forssman 2008).

Figures 4 and 5 show the vertical distribution pattern of the lithic material compared with OES beads and ochre. Bone and charcoal were also found within the LSA levels but both samples are highly fragmented. The high concentration of finds between 80–130 cm may represent a series of repeated occupations or a single lengthier occupation, with distribution of material above and below the main concentration possibly due to post-depositional movements. The grain size distribution of sediments indicates that the Hutton Sands are the result of aeolian processes. In such an unconsolidated deposit, artefacts are highly susceptible to post-depositional movement (De Wit 2008). A refitting study would help determine whether or not this is the case. All segments of the excavation were taken to depths below the LSA, with the exception of segment A. Hence the sampling bias on the vertical distribution pattern seen in the two figures is minor.

## RADIOCARON DATING

Two samples of charcoal and two OES beads were radiocarbon dated (Table 1). The samples were chosen from spits between 80–120 cm to avoid contact with the layers above and below the LSA levels. The dates indicate that the site was occupied within the last 450 years. The OES dates require correction because the carbonate fraction of ostrich eggshell displays an initial deficit of 2.2% in radiocarbon caused by the intake of fossil lime, limestone or calcrete during the egg-laying period, which on average results in the OES age to appear some 180 years too old, with an uncertainty of about ±120 years (Vogel *et al.* 2001). In other words, dates obtained from OES are between 60 and 300 years too old. After correction, all four dates were calibrated using the software program CAL4H, developed by the Quaternary Dating Research Unit, CSIR,

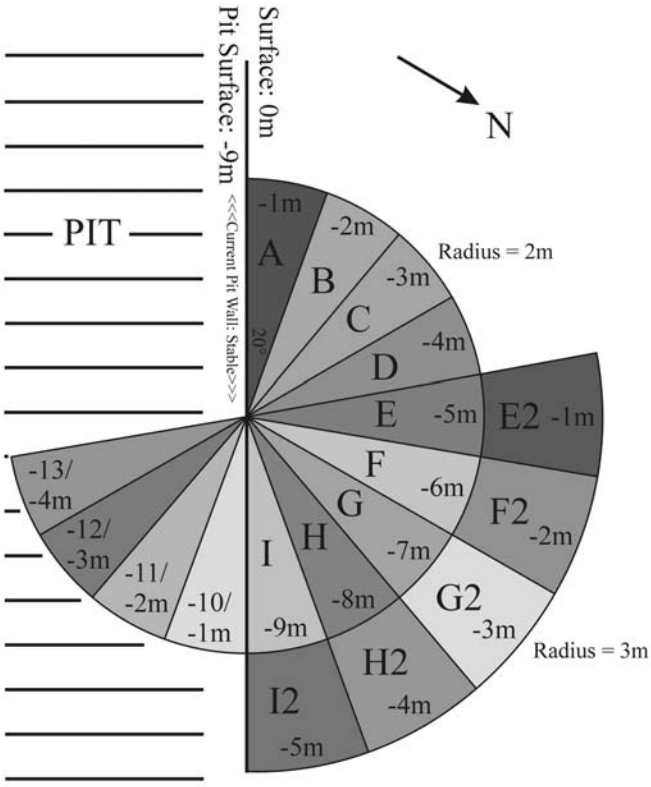


**FIG. 3**. *The circular excavation grid used at Canteen Kopje for the current excavation. Square A was excavated to 1m below the datum and each next square was excavated 1m deeper than the last. Squares E2–I2 were excavated for safety requirements. The unlabelled squares after square I are in the undisturbed wall of the mine shaft, which are at an angle.*

Tshwane (Pretoria) in June 1997 and updated in October 2001. We have used the SH98 Southern hemisphere calibration data obtained from INTCAL98 (Stuiver *et al.* 1998), adjusted by 40 years (Vogel *et al.* 1993). Part of the calibrated date range at two sigma falls within the period of diamond mining activity at Canteen Kopje, which began in the 1870s (De Wit 2008). Foragers were not occupying the site during this time (see Stow 1872) and so the beginning of mining activity offers a minimum date for LSA occupation, suggesting that the LSA occupation at Canteen Kopje dates in the range AD 1436–1870.

## LITHIC ANALYSIS

The assemblage recovered from the site is fairly substantial in contrast to the typically smaller, open-air assemblages found in the Northern Cape (Parsons 2003; Dewar 2008). A total of 8363 lithic artefacts derive from 70–140 cm below the datum, which is approximately from the top 70 cm of the Hutton Sands. Crypto-crystalline materials are the most frequent raw material in the assemblage (56.74%) and are followed by Ventersdorp lava (37.03%). Quartz (5.2%) and quartzite (0.9%) are poorly represented at the site (Table 2). In the assemblage, 71 formal tools were identified (0.84%; see Tables 3 and 4 and Figs 6–8). Altogether, 47 scrapers were recovered, five of which are on the relatively coarse Ventersdorp lava, one on quartz and 41 on fine-grained lithic raw materials. Furthermore, all the scrapers on Ventersdorp lava are large scrapers (>30 mm) and the only quartz tool in the assemblage is a small scraper (<20 mm). The crypto-crystalline materials are more diverse with 11 large scrapers, 13 medium scrapers (20–30 mm) and 17 small scrapers. In total, 16 large scrapers are present (34.04%), 13 medium scrapers (27.66%) and 18 small scrapers (38.3%; Table 3).

Other formal tools are an adze, two segments, two backed blades, five backed bladelets, 12 miscellaneously retouched pieces (MRP) on crypto-crystalline materials, and two adzes on Ventersdorp lava (Table 3). When comparing these findings to those of Parsons (2003), one notices the high ratio of scrapers to other tools at Canteen Kopje.

## DISCUSSION

### CANTEEN KOPJE AND THE NORTHERN CAPE ARCHAEOLOGICAL SEQUENCE

Broadly, two industries have been identified in the Northern Cape (Humphreys & Thackeray 1983). Of these, a macrolithic early Holocene industry has been recorded at Wonderwerk Cave (Thackeray 1981). Typical of this assemblage are large oblong scrapers with retouch on one working edge. Tools are most commonly made on banded ironstone and dolerite. In the non-lithic assemblage, OES beads and fragments and engraved stones were found (Thackeray *et al.* 1981). The other industry is characterised by microlithic tools and has been assigned to the mid to late Holocene (Humphreys & Thackeray 1983). During this time, tools were mostly made on fine-grained

**TABLE 1**. *Radiocarbon dates from Canteen Kopje.*

| Sample number | Depth (cm) | Material dated | Radiocarbon date | Corrected date | Calendar date range at two sigma |
|---|---|---|---|---|---|
| BETA # 254604 | 110–120 | Charcoal | 110 ± 40 BP | | AD 1681–1955 |
| BETA # 254605 | 80–90 | Charcoal | 420 ± 40 BP | | AD 1436–1637 |
| BETA # 262991 | 80–90 | OES bead | 210 ± 40 BP | 30 ± 160 BP | AD 1531–1955 |
| BETA # 262992 | 90–100 | OES bead | 200 ± 40 BP | 20 ± 160 BP | AD 1637–1955 |

**TABLE 2**. *Raw material proportions in the LSA from Canteen Kopje.*

| Square | A | B | C | D | E | F | G | H | I | E2 | F2 | G2 | H2 | I2 | Cen. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 150 | 812 | 797 | 582 | 667 | 555 | 878 | 520 | 589 | 259 | 650 | 551 | 511 | 369 | 473 | 8363 |
| Ventersdorp lava | 79 | 326 | 256 | 166 | 276 | 201 | 331 | 187 | 213 | 105 | 269 | 233 | 159 | 131 | 165 | 3097 |
| Fine-grained material | 68 | 437 | 490 | 384 | 348 | 329 | 493 | 295 | 330 | 150 | 349 | 287 | 321 | 209 | 255 | 4745 |
| Quartz | 3 | 35 | 44 | 28 | 34 | 23 | 47 | 35 | 40 | 4 | 28 | 22 | 28 | 19 | 45 | 435 |
| Quartzite | 0 | 12 | 5 | 4 | 8 | 2 | 5 | 3 | 6 | 0 | 4 | 8 | 2 | 8 | 8 | 75 |
| Unidentified raw material | 0 | 2 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 11 |

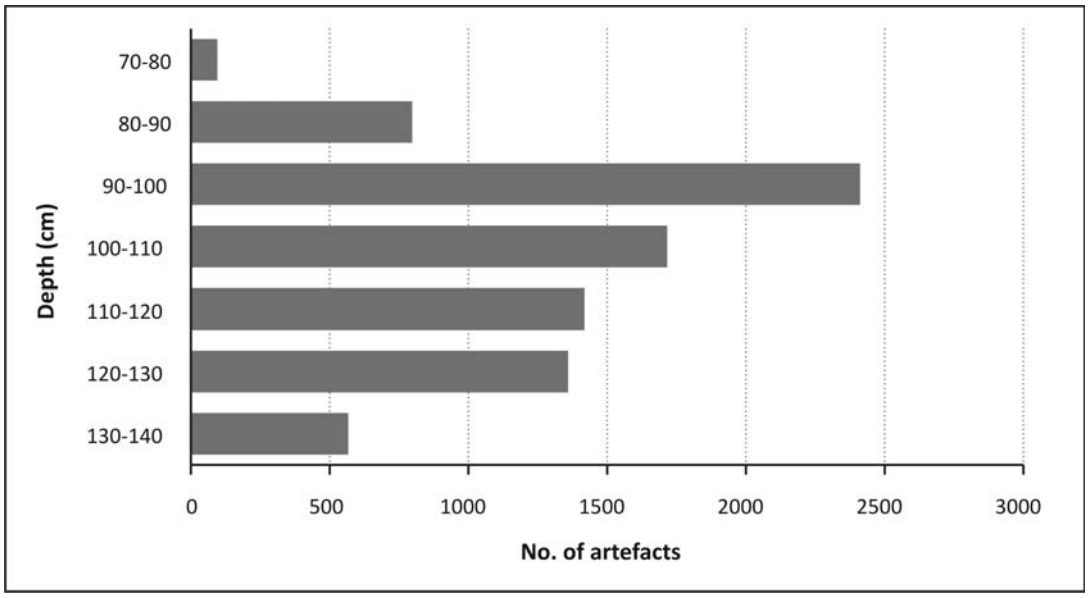


**FIG. 4.** *Vertical distribution of the lithic artefacts in the LSA layer.*

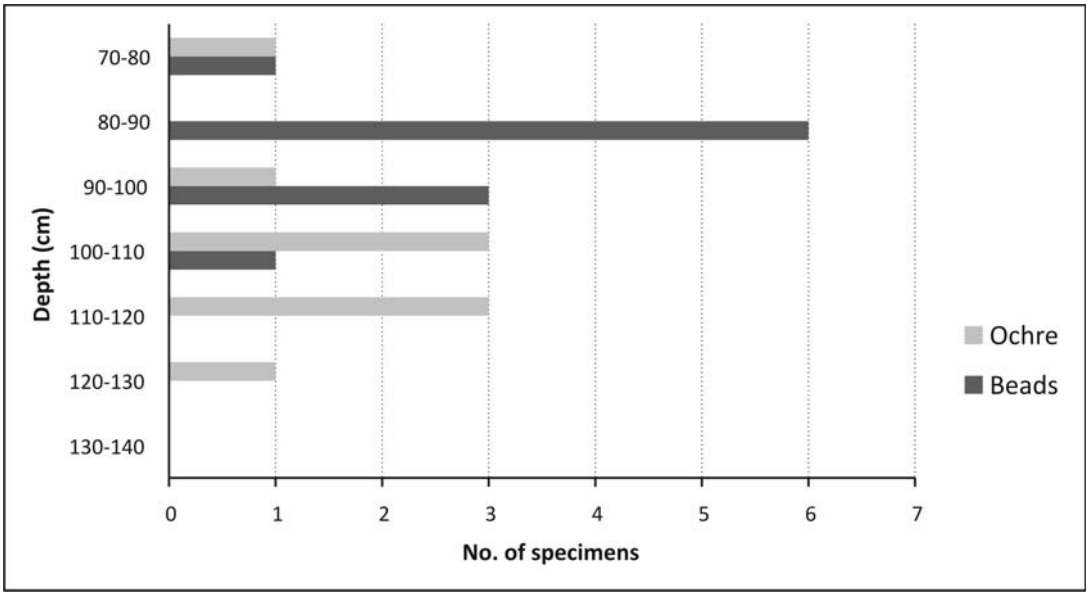


**FIG. 5**. *Vertical distribution of ostrich eggshell beads and ochre in the LSA layer.*

crypto-crystalline materials and quartz, and included backed blades, segments, scrapers, adzes, awls, borers and miscellaneous retouched pieces. Scrapers were the predominant tool type and their morphology was diverse (Humphreys & Thackeray 1983).

Work done in the nearby Kuruman Hills (Humphreys & Thackeray 1983) and in the Seacow Valley (Sampson 1974) has shown that in late Holocene assemblages, scrapers tend to be larger than their earlier counterparts. Sampson (1974) recorded a mean increase in scraper length from 20 to 38 mm. Wonderwerk Cave and Blinkklipkop display the same trend. Yet on the Ghaap plateau, the scraper variety witnessed in the Kuruman Hills is not present. At sites such as Little Witkrans and Powerhouse Cave, scrapers ranged consistently between 16 and 22 mm in length. There, assemblages are also associated with bifacial tanged and barbed arrowheads, bifacial points and grooved stones (Humphreys 1978; Humphreys & Thackeray 1983).

The scraper forms and size classes at Canteen Kopje are diverse (Table 3). The same can be said for the Kuruman Hills. At Canteen Kopje the average scraper length of 29.67 mm falls within the Wonderwerk Cave scraper length range (Thackeray 1981). This has also been recorded in the Seacow Valley (Sampson 1986). The form of the Canteen Kopje scrapers, their

**TABLE 3**. *Scraper types in the LSA from Canteen Kopje.*

| | Total | Size class | *n* | % of types | % of total scrapers |
|---|---|---|---|---|---|
| End scrapers | 24 | small | 14 | 58.33 | 31.25 |
| | | medium | 8 | 33.33 | 16.67 |
| | | large | 2 | 8.33 | 4.17 |
| Side scrapers | 11 | small | 1 | 9.09 | 2.08 |
| | | medium | 2 | 18.18 | 4.17 |
| | | large | 8 | 72.73 | 16.67 |
| End and side scrapers | 12 | small | 3 | 25 | 6.25 |
| | | medium | 3 | 25 | 6.25 |
| | | large | 6 | 50 | 12.5 |

**TABLE 4**. *Formal tools in the LSA from Canteen Kopje (MRP = miscellaneous retouched pieces).*

| | Adze | Blade | Bladelet | MRP | Scraper | Segment |
|---|---|---|---|---|---|---|
| Crypto-crystalline materials | 1 | 2 | 5 | 12 | 41 | 2 |
| Quartz | | | | | 1 | |
| Ventersdorp lava | 2 | | | | 5 | |
| Total | 3 | 2 | 5 | 12 | 47 | 2 |

high frequency and the rarity of other formal tools are not atypical of late Holocene assemblages (e.g. Deacon 1984a; but see also Orton 2002; Orton *et al.* 2005; Dewar 2008).

On the Northern Cape landscape, there are three industries from the late Holocene with which Canteen Kopje can be compared. These are the Doornfontein and Swartkop industries, identified initially by Peter Beaumont (Beaumont *et al.* 1995) and the Smithfield industry. Beaumont *et al.* (1995) described Doornfontein assemblages as predominantly made on quartz and including few or no formal tools (also see Parsons 2003, 2007). They are associated with thin-walled ceramics which may have had thickened bases, lugs and spouts as well as decoration on the sherds neck or rim (Morris & Beaumont 1991). However, after AD 700, coarse grass-tempered ceramics, iron and copper objects and large OES beads appeared in the Doornfontein assemblages (Beaumont *et al.* 1995; Parsons 2007). It is not clear who produced the Doornfontein assemblages. It may have been Khoekhoe herders as suggested by the amphora-shaped ceramics present in historic herder assemblages (Beaumont *et al.* 1995). Alas, such attributions are problematic, and there is little faunal evidence to vindicate such a suggestion (Parsons 2007). The contemporaneous Swartkop assemblages are thought to have been produced by local hunter-gatherers, possibly the forebears of the /Xam (Beaumont *et al.* 1995). These assemblages possess a variety of well made formal tools of which up to 60% are backed blades and a few undecorated, grass-tempered ceramics. Later, however, after the European arrival in the Northern Cape, ceramic frequencies increased while backed blade frequencies decreased at Swartkop sites (Beaumont *et al.* 1995; Parsons 2007). Iron implements may also be present (Beaumont *et al.* 1995). The Swartkop and Doornfontein distinction is poorly understood and the degree of overlap between these industries is yet to be established. Our understanding of the socio-economic changes during the Holocene in the Northern Cape is still developing (Parsons 2008).

Canteen Kopje's LSA assemblage differs from both the Swartkop and Doornfontein industries (Table 5). While Canteen's assemblage is dominated by scrapers, it lacks the more extensive formal toolkit of Swartkop assemblages and the high numbers of bladelets often associated with the latter industry. The Canteen assemblage is different from Doornfontein assemblages as well, insofar as the latter are typically dominated by quartz. Alternatively, Canteen's assemblage might be better labelled as Smithfield industry. In its original definition, Smithfield industries were characterised by the presence of large

**TABLE 5**. *Assemblage comparisons between Canteen Kopje (CK) and Swartkop (JP7; Jagt Pan 7 and VMG; Vlermuisgat), Doornfontein (MB1; Melkboom 1, BVM3; Biesje Poort 2 and BP2; Bokvasmaak 2). Table adapted from Parsons (2007) with Canteen Kopje details adjusted to fit.*

| | Swartkop | | | | Doornfontein | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | JP7 | % | VMG | % | MB1 | % | BVM3 | % | BP2 | % | CK | % |
| **Backed pieces** | **45** | **1.82** | **9** | **1.12** | **11** | **0.79** | **2** | **0.26** | **15** | **1.28** | **21** | **0.25** |
| Backed bladelets | 12 | | 4 | | 5 | | 1 | | 2 | | 5 | |
| Backed blades | 2 | | | | | | | | 1 | | 2 | |
| Broken backed pieces | 24 | | 4 | | 4 | | 1 | | 9 | | | |
| Misc. backed pieces | | | 1 | | | | | | 1 | | 12 | |
| Segments | 2 | | | | 2 | | | | 2 | | 2 | |
| Double segments | 1 | | | | | | | | | | | |
| Borers | 4 | | | | | | | | | | | |
| **Other retouched** | **48** | **1.94** | **1** | **0.12** | **10** | **0.72** | **2** | **0.26** | **6** | **0.51** | **50** | **0.60** |
| Endscrapers | 8 | | 1 | | 3 | | 1 | | 1 | | 24 | |
| Double endscrapers | 2 | | | | | | | | | | | |
| Side scrapers | 9 | | | | 7 | | 1 | | 3 | | 11 | |
| Double sidescrapers | 1 | | | | | | | | | | | |
| End and side scrapers | 14 | | | | | | | | 2 | | 12 | |
| Adzes | 8 | | | | | | | | | | 3 | |
| Notched pieces | 2 | | | | | | | | | | | |
| Tanged point | 3 | | | | | | | | | | | |
| **Other** | **1** | **0.04** | **1** | **0.12** | **3** | **0.22** | **23** | **3.01** | **9** | **0.77** | **0** | **0.00** |
| Manuports | 1 | | | | 3 | | 19 | | 7 | | | |
| Upper grinding stone | | | | | | | 4 | | 2 | | | |
| Misc. worked stones | | | 1 | | | | | | | | | |
| **Total above** | 93 | 3.76 | 11 | 1.37 | 24 | 1.72 | 27 | 3.54 | 30 | 2.55 | 71 | 0.85 |
| **Total waste** | 2383 | 96.24 | 794 | 98.63 | 1368 | 98.28 | 736 | 96.46 | 1145 | 97.45 | 8292 | 99.15 |
| **Total artefacts** | 2476 | | 805 | | 1392 | | 763 | | 1175 | | 8363 | |

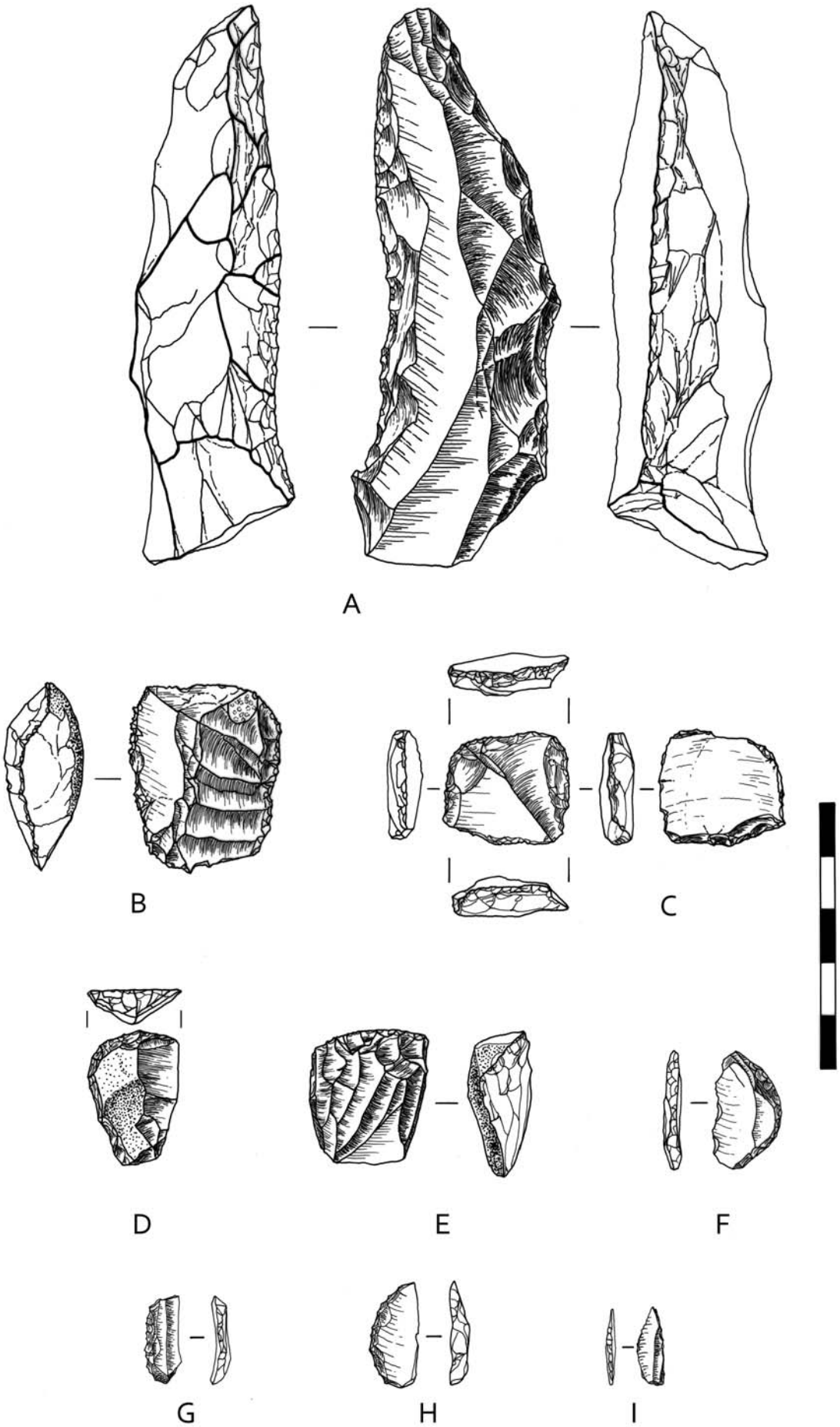


**FIG. 6**. *LSA artefacts from Canteen Kopje:* (**A**) *adze;* (**B–D, G**) *scrapers;* (**E**) *bladelet core;* (**F, H**) *segments;* (**I**) *backed bladelet.*

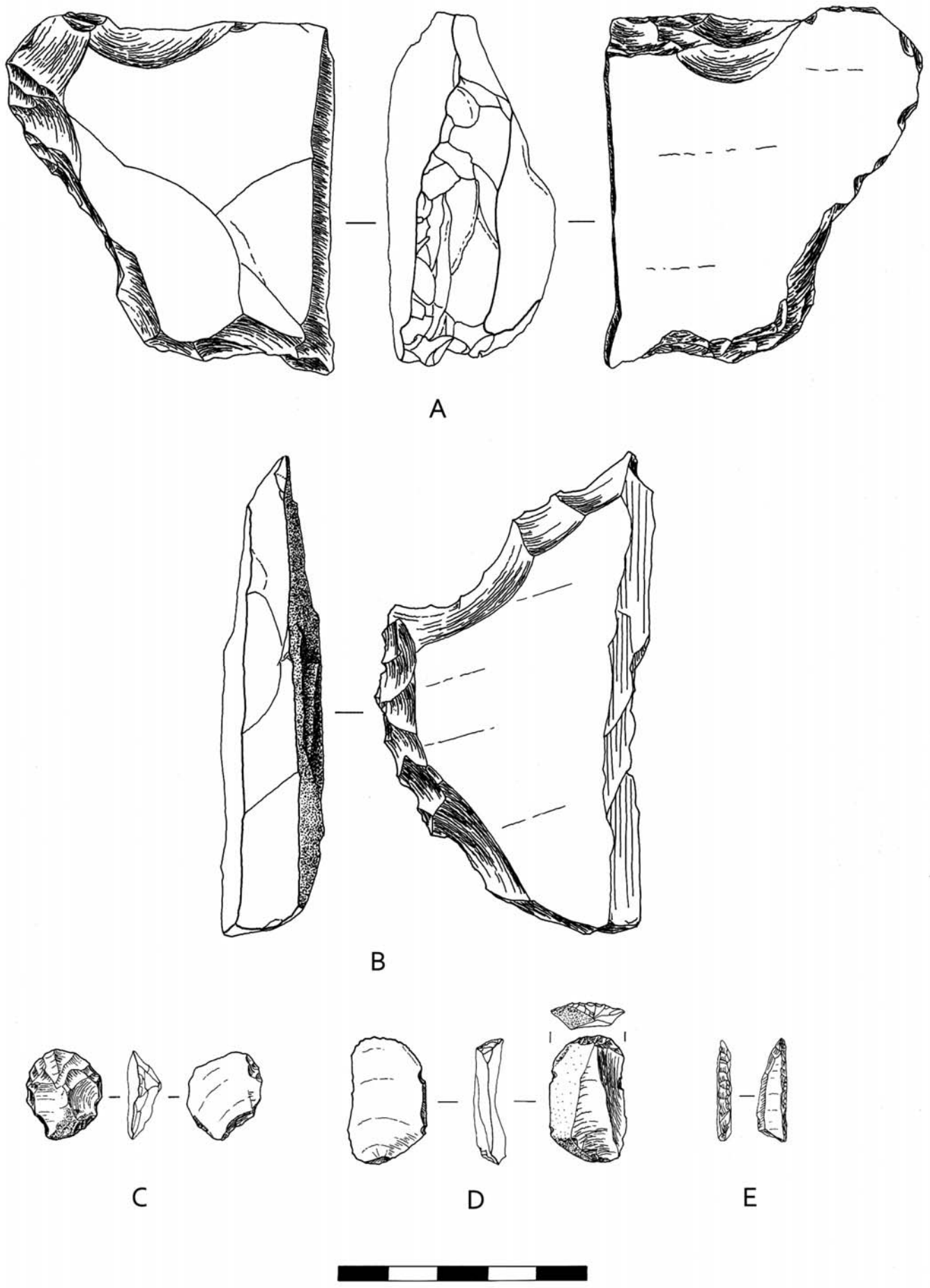


**FIG. 7**. *LSA artefacts from Canteen Kopje:* (**A**) *irregular core;* (**B–D**) *scrapers;* (**E**) *backed bladelet.*

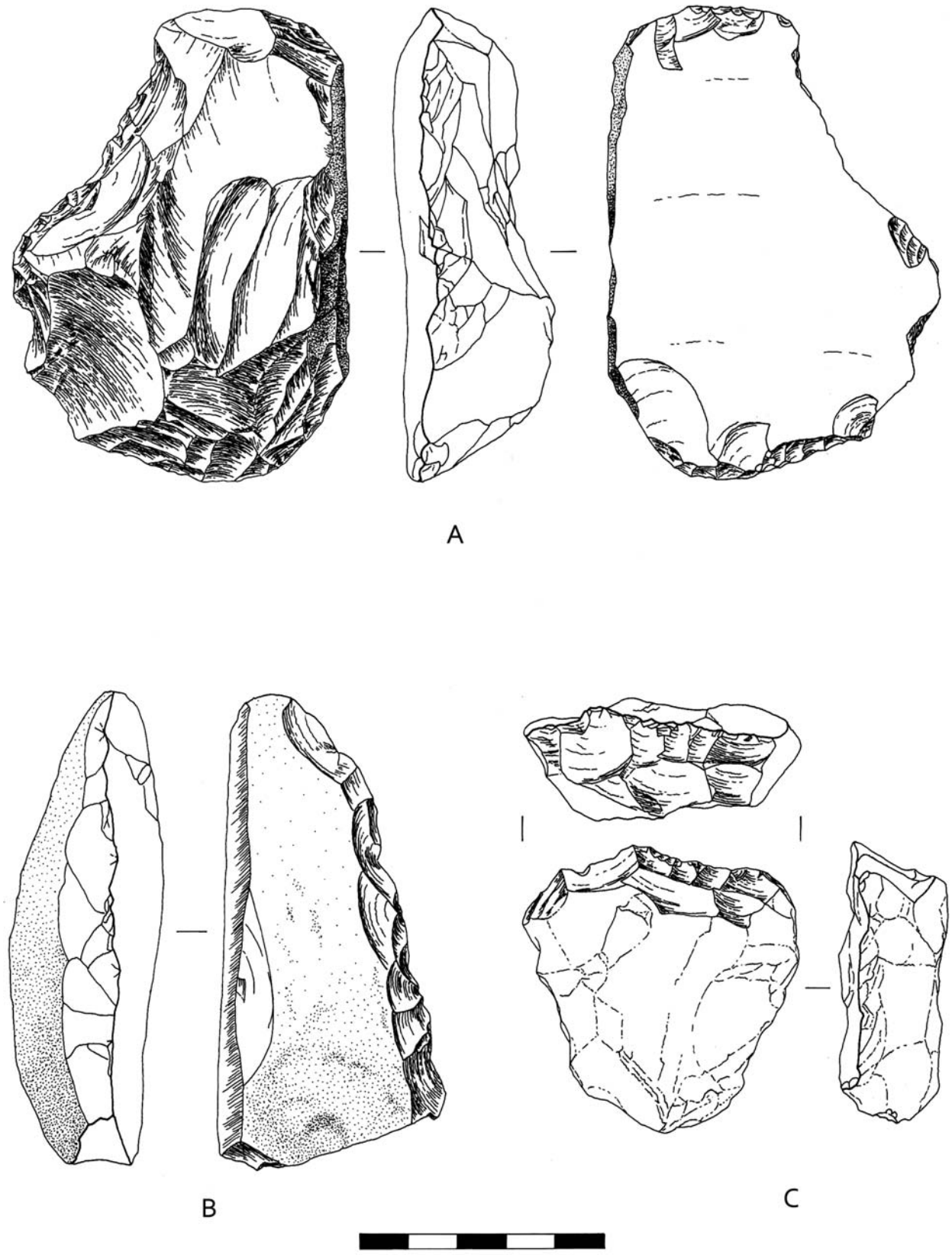


**FIG. 8**. *Large scrapers from the Canteen Kopje LSA.*

scrapers (Goodwin & Van Riet Lowe 1929). Such scrapers were found at Canteen Kopje, and represent one third of all scrapers. Small end scrapers represent another third. Smithfield assemblages also contain ceramics and occasional iron objects (Mitchell 2002). Canteen Kopje, however, lacks ceramics and Iron Age trade items. Nevertheless Canteen Kopje lithics bear more resemblance to either the Smithfield or Swartkop industries than the Doornfontein industry.

During the Canteen Kopje LSA occupation, foragers were sharing the landscape with herders and farmers. Elsewhere, artefacts indicating trade have been found in the late Holocene LSA record. This includes the Waterberg area (Van der Ryst 2003), on the Mapungubwe landscape (Hall & Smith 2000; Van Doornum 2005), in the Seacow Valley (Sampson 1985), in

Thamaga, Botswana (Sadr & Plug 2001; Sadr 2002) and in the Matopos, Zimbabwe (Walker 1994, 1995a,b). Similar to Canteen Kopje, scrapers dominate contact assemblages found in these areas. They are often used as indicators of trade as they were used to prepare hides, perhaps for trade (Deacon & Deacon 1980). The lack of trade items might suggest that the foragers opted not to take on herder or farmer cultural material even though they were occupying the same region at the same time.

SITE OCCUPATION

The occurrence of adzes at the site suggests tool maintenance activities at Canteen Kopje (*cf.* Parkington 1980; Mazel & Parkington 1981). There is also a large amount of lithic manufacturing debris at the site in addition to unmodified ochre. Ochre may have been used for ritual or symbolic and practical functions (Wadley *et al.* 2004), as an adornment (Humphreys 1975) and for hide preparation (Watts 2002), all of which activities can occur at aggregation sites. In addition to ochre, OES beads were found. In modern San society, bead production occurs when women gather in large camps, while at transit sites, or in extended family groups (Jacobson 1987; Orton 2008). At sites where women are absent there are generally fewer beads (Wadley 1989; Parkington 2001). The highest frequencies of beads have been recorded at aggregation sites (Wadley 1989), where social activities are frequent (Lee 1979; Silberbauer 1981). Here, the entire range of beads in their various stages of production can be found. Canteen Kopje, however, has only a few complete beads ($n$ = 11; see Forssman 2008). The relatively few beads suggest Canteen Kopje was a dispersal phase camp when gift manufacture and social activities are decreased (Wadley 1989). However, the number and types of lithics suggest the opposite.

## CONCLUSION

On the Northern Cape landscape Canteen Kopje is a significant site. It transcends the typical regional site type in that it has an extensive assemblage with a complement of formal tools. The lithic assemblage compares with both the Smithfield and Swartkop industries, albeit not succinctly. It may be that lumping assemblages into industries during this period ignores inter-site functional variations.

Nevertheless, in general, the Canteen Kopje assemblage resembles those from the nearby Kuruman Hills more so than those on the Ghaap plateau. The limited range of non-lithic material is not indicative of an aggregation site. It seems likely Canteen Kopje was used as a campsite during a dispersal period. The LSA occupation of the site is dated to the contact period, but no evidence suggesting contact has been found. As we learn more about the lithic sequence of the Northern Cape, the place of Canteen Kopje on the landscape will become clearer.

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