ETHIOPIA

The prehistoric settlement of the Shire Region, Western Tigray, Ethiopia: Some preliminary observations

Niall Finneran
Department of Art and Archaeology
School of Oriental and African Studies
London, United Kingdom, WCIH OXG

With additional contributions by
Jacke Phillips
McDonald Institute for Archaeological Research
University of Cambridge
Cambridge, United Kingdom, CB2 3DZ

In November 2001 the present author directed an archaeological landscape survey in the region of Shire, western Tigray, northern Ethiopia. The survey zone covered an area of about 100 km² centered on the administrative town of Indaselassie (Figure 1). The project was designed to record as many multi-period archaeological sites as possible as a basis for future excavation work. Building on earlier work by our Ethiopian colleagues the late Gebre Kidan Wolde Hawariat, Tekle Hagos and Asamerew Desie (the latter was a member of the 2001 field team), we sought to construct a detailed sites and monuments database, and advise where needed on strategies for cultural resource management (see Asamerew *et al.* 2002). The present contribution, one of a number of thematic papers arising from this collaborative work, seeks to give a more detailed picture of the evolution of the socio-cultural sequence in the region than is afforded by the planned relatively brief and wider-ranging synthesis of the 2001 results (Asamerew *et al.* forthcoming).

The survey recorded one Early Stone Age (ESA) site and multiple Middle Stone Age (MSA) and Late Stone Age (LSA) sites. These sites and their chronological attribution are tabulated below, alongside the sites and monuments register (SMR) code number (copies of the SMR are available for consultation at antiquities bureaux at local, federal and national level, and it is hoped that a fully digitised archive package will soon be made available). The randomly collected lithics were bagged, numbered and analysed and are currently in store at the public library at Inda Sellassie.

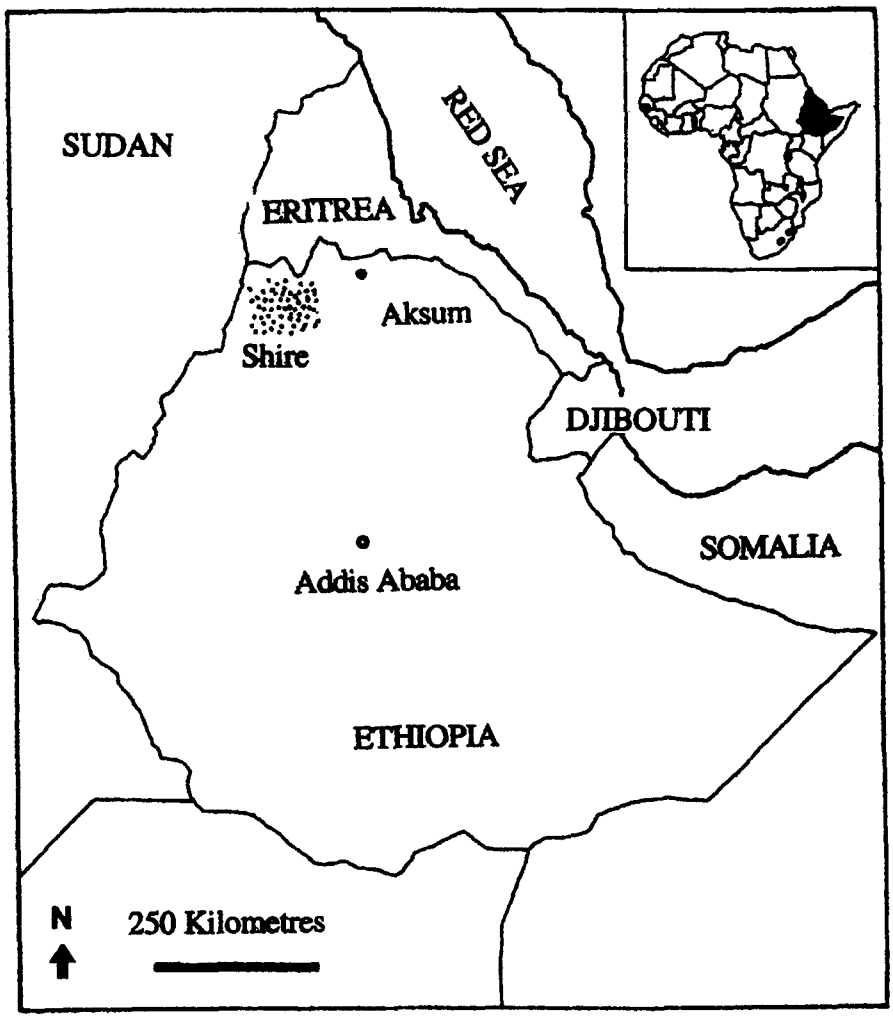
Early Stone Age Sites

Although the ESA industries of Ethiopia and the neighboring lowland zones of the Horn of Africa are fairly well studied, our knowledge of the earliest populations in this corner of the northern highlands is scant. Laurel Phillipson identified a small number of derived, abraded but distinctive ESA pieces across the Aksum survey area in a recent surface survey (D. Phillipson 2000:17). The only ESA site located within the survey zone, Site 25, is an extensive and fairly dense scatter of ESA/mode 2 very roughly grained quartzite lithics extending c. 60 m across the Mai Hine gorge flanks. A distinctive Acheulean-type hand-axe noted here, and measuring 160 by 81 by 41 mm, is diagnostic of ESA/mode 2 industries throughout eastern Africa (Chavaillon 1976; D. Phillipson 2000:17). Its dorsal surface has two main linear scars, with rough retouch along one edge (Figure 2). The remainder of the collected elements consisted of variably utilized long quartzite flakes, rarely denticulated, their dorsal surfaces bearing linear and radial flake removal scars. Two collected flakes bore opposed striking platforms. Two side scrapers were also noted, both less than 10 ram. long, bearing slight retouch along a single edge and, occasionally, very heavy hinge fracturing. Surface patination and abrasion varied, but the predominantly lithosolic soil matrix appears minimally disturbed towards the southern edge of the site, and the locale obviously warrants further investigation.

Middle Stone Age Sites

Eight sites containing MSA material were noted during survey. MSA material is readily recognized by use of prepared-core technology and a rather limited raw material repertoire (Figure 3). Variably-utilized blades are the most abundant tool types, mainly single striking platform (although a few bipolar forms were noted), most with radial flake removal scars on their dorsal surfaces. Formal, retouched tool forms largely are limited to scrapers of variable size (again

Figure 1: Location of the Shire region within northeastern Africa.

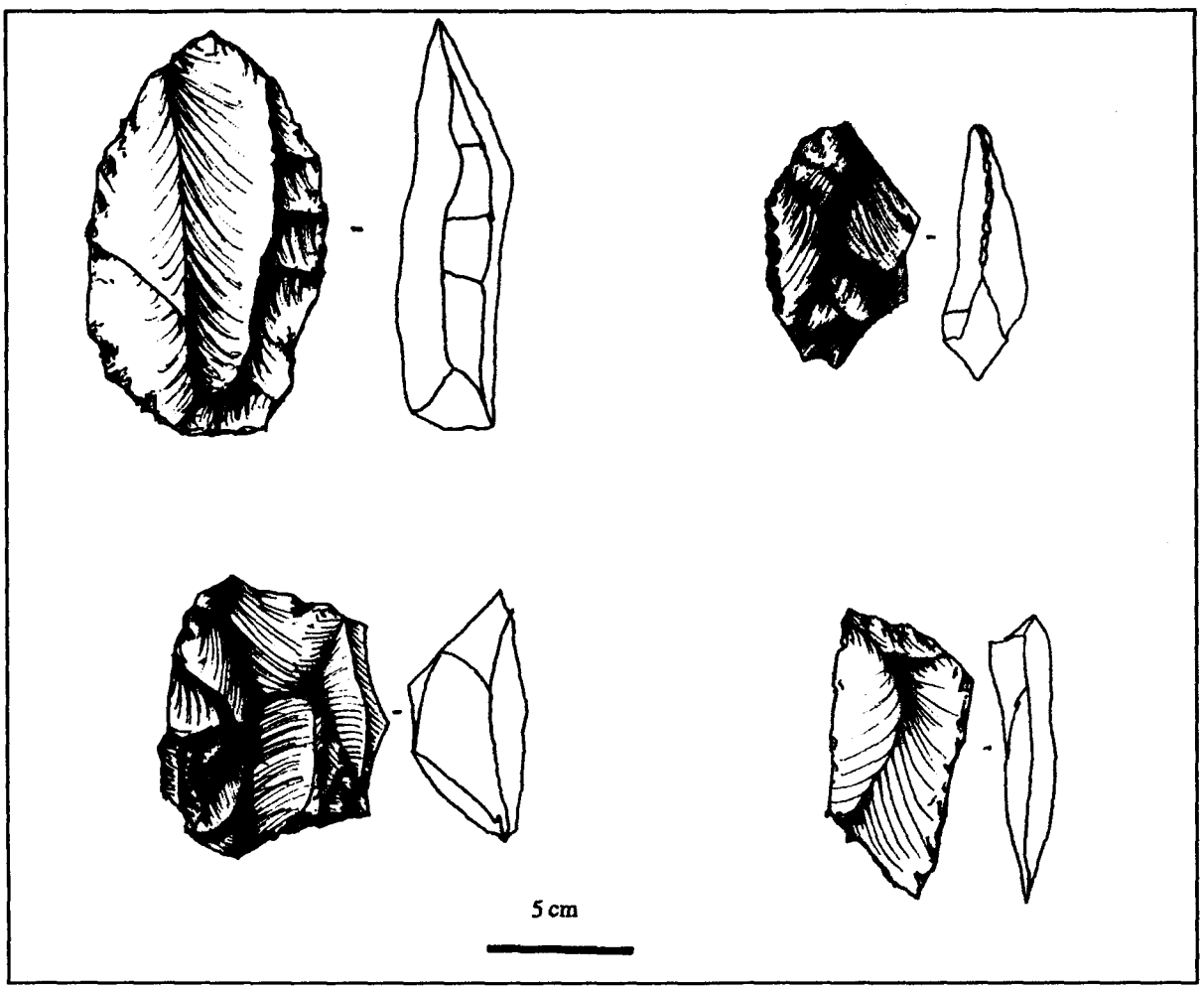


with evidence of a prepared core technology). Points are very rare. Radial types dominate the cores. In contrast to ESA material, micro-crystalline quartz dominated by a brown/red chalcedony, with occasional chert, sandstone, quartzite, breccias, mudstone and conglomerates typify MSA tools in the Shire region. The small size and low number of samples collected precludes any firm intra- and inter-regional comparison, although similarities with MSA material collected by Laurel Phillipson around Aksum. (D. Phillipson 2000:17) are clear.

Later Stone Age Sites

The only single-phase LSA mode 4 (or long-blade) site noted is Mai Mesereb (Site 20), where the corpus very obviously resembles that from excavated rockshelters around Aksum (D. Phillipson 1977; Finneran 2000a, 2000b). Finneran (2001) provides a more detailed explanation and definition of this probable early-mid Holocene industrial phase, and its problematic connections with the recognized three-age terminology of African prehistoric archaeology. The industry is based on long, non-retouched and mainly light-medium utilized flakes, fabricated exclusively from soft sedimentary rocks like mudstone or siltstone. The majority of these blade forms are manufactured from single and opposed platform cores. Few formal tools are associated with the overall assemblages. End-scrapers, very characteristic of the succeeding LSA/mode 5 phases, predominate, and are fabricated from a range of micro-crystalline and

Figure 2: A selection of ESA material from the site of Mai Hine (SMR code 25). Top (1-r) : hand axe; side scraper. Bottom (1-r) : discoidal piece; utilised flake.

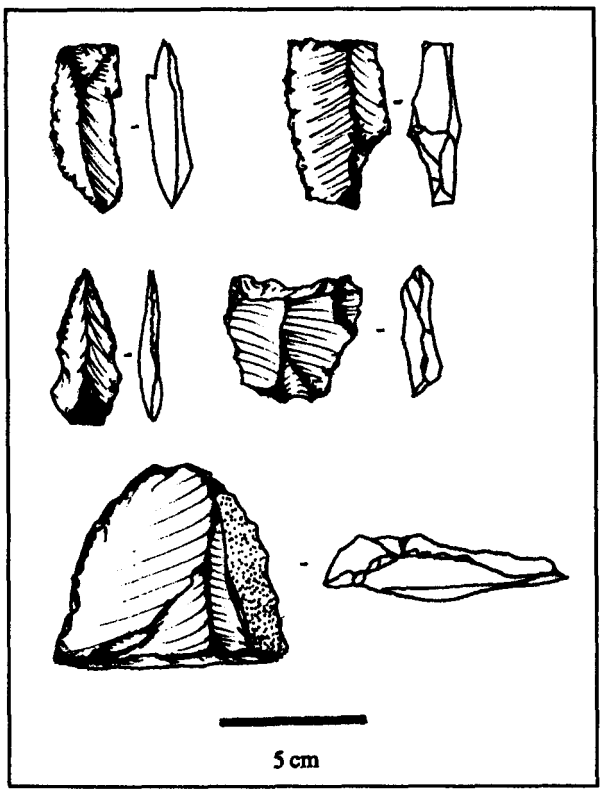


macro-crystalline quartzes. The variety of raw material utilization is greater than in the preceding MSA phase (Figure 4).

The LSA/mode 5 phase is characterized by the emergence of microlithic and geometric tool forms, and associated with the development of pottery, although very few LSA ceramics were located. Generally, the most abundant tool type remains the basic flake, again either with single or opposed striking platforms. Facetted versions are less common, combined with a variable degree of utilization, and a roughly equal proportion of flakes beating linear and radial flake removal scars on their dorsal surfaces. Like other elements of these assemblages, the range of raw material selected is broad: micro-crystalline quartz, especially differently colored and banded chalcedony and cherts, used alongside coarser macro-crystalline quartz, occasional metamorphic rocks and very rarely obsidian obtained from some distance away (Zarins 1990; D. Phillipson 2000:357). Core forms, rarely noted, show little overall patterning, whilst single-platform, opposed-platform, radial, and polyhedral scrapers all feature random flake removal patterning.

Scraper forms vary, with side-scrapers, circular scrapers, and convergent scrapers or points all represented. These forms are usually based on rectangular micro-crystalline quartz flakes bearing radial dorsal flake removal scars. Overwhelmingly, the most favored form appears to be a very steeply retouched end-scraper. Retouching is confined mainly to the proximal edge, with a sharp break between the

Figure 3: A selection of MSA material. Top (1-r) : utilised flake; denticulate from Mai Hine (SMR code 5). Middle (1-r) : point; bipolar flake from Adi Hano (SMR code 4). Bottom: end scraper from Adi Hahno (SMR code 4).number, used to designate scattered finds. KEY: dark hatching indicates tufa area; dotted lines indicate larger basins.



unretouched flake edges. Retouch also is very steep, varying between 50 and 60 degrees as measured from the ventral surface. These scraper forms resemble the Gudit scraper noted in very well-defined Aksumite-period contexts at Aksum (L. Phillipson 2000).

Fully microlithic forms represent only a small proportion (<5 %) of the analysed LSA mode 5 surface collection, and mainly are of macro-crystalline and microcrystalline quartzes. All are less than 25 mm. long with steep and continuous backing along their edges, but exhibit a wide array of forms including trapezoids, triangular forms and lunates. Burins also feature, as do bladelets with variable retouch. A small number of unipolar microlithic cores also are observed.

Spatial distribution and site typology

All but two prehistoric sites are variable-density and/or variable-sized surface scatters on predominantly lithosolic soils in gorge flank positions. Both rock-shelters at Mai Hine (Site 9) and Mai Zegaf (Site 33) are worthy of further more detailed investigation, and exhibit both MSA and LSA technologies. The Mai Hine rock-shelter is a small overhang enclosing a chamber of about 5 sq. m., directly above the flood plain of a perennial watercourse. Ceramics, all very roughly formed and fresh looking, were noted within the chamber. Although probably post-Medieval in date, a smaller quantity of thin-walled coarse sherds were observed in association with a mode-5 stone tool industry on the upper talus. Sherds with incised thumbnail decoration bear a striking resemblance to material in rock-shelters at Gobedra (Phillipson 1977), Anqqer Baahti (Finneran 2000a) and Baahti Nebait (Finneran 2000b) near Aksum. MSA cultural elements also were noted on the lower talus. The Mai Zegaf rock-shelter, in contrast, encloses a much larger area of about 15 by 7 m. MSA and LSA material were found, but some very recent quarrying and stone-working activity also was noted within the chamber. Although the team and authorities have now protected the site, its upper matrices have been disturbed considerably.

Discussion

A few salient points may be noted as a broad synthesis of the overall corpus of collected lithics, but the proviso stands that the small quantity of pieces randomly collected during survey precludes definitive conclusions, and only future intensive collection and excavation will yield more detailed results. The scant ESA material noted in the region - both in terms of raw material preferences and morphology -- broadly conforms with that recognised as characteristic ESA/mode 2 industries from the rest of the Horn of Africa and eastern Africa. The MSA picture indicates a broader range of raw material utilization, and the emergence of the characteristic forms of mode-3 industries in eastern Africa (i.e. based on prepared cores). On the basis of a very generalized regional comparison, these industries probably persisted until the late Pleistocene period when the more fully developed mode-4 long-blade industries began to emerge (Finneran 2001).

Figure 4: A selection of LSA material (scrapers) from Mai Hine (SMR code 18). Top (1-r): point; end scraper. Bottom (1-r): end scraper; end scraper.

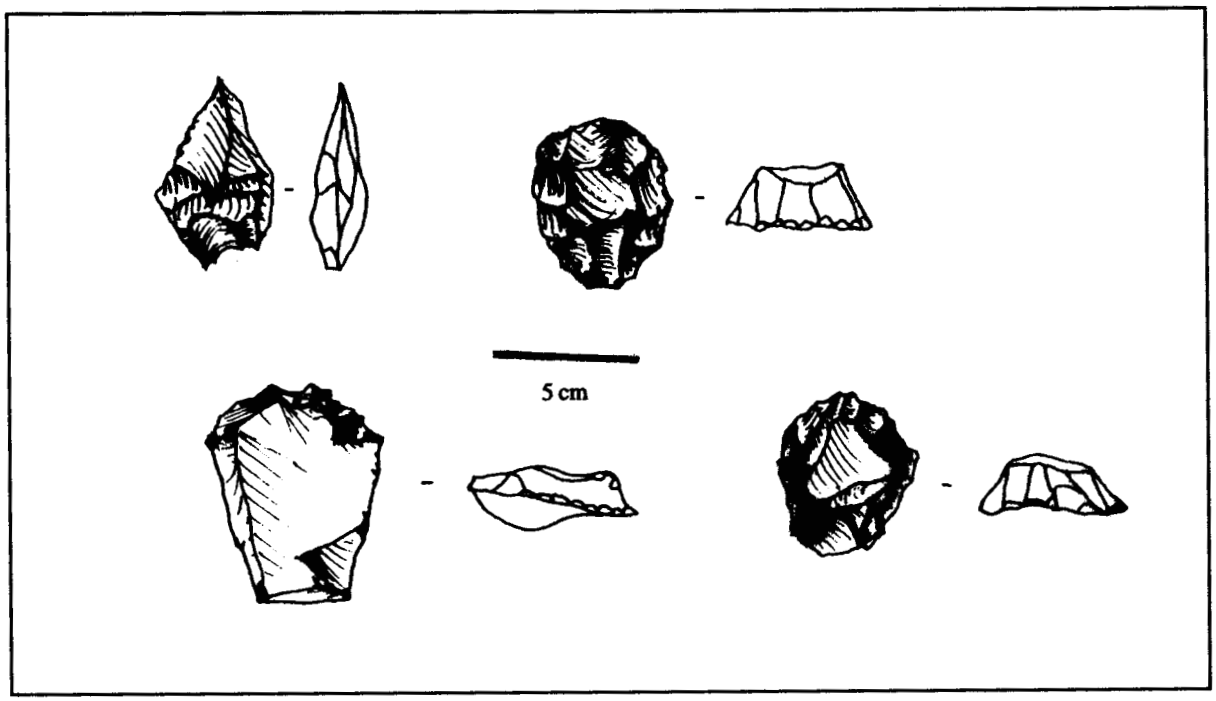


Figure 5: A selection of LSA microlithic material from Mai Gushella (SMR code 36). Top (1-r): percoir; point; side scraper; side scraper; bladelet. Bottom (1-r): burin; side scraper; bladelet; end scraper.

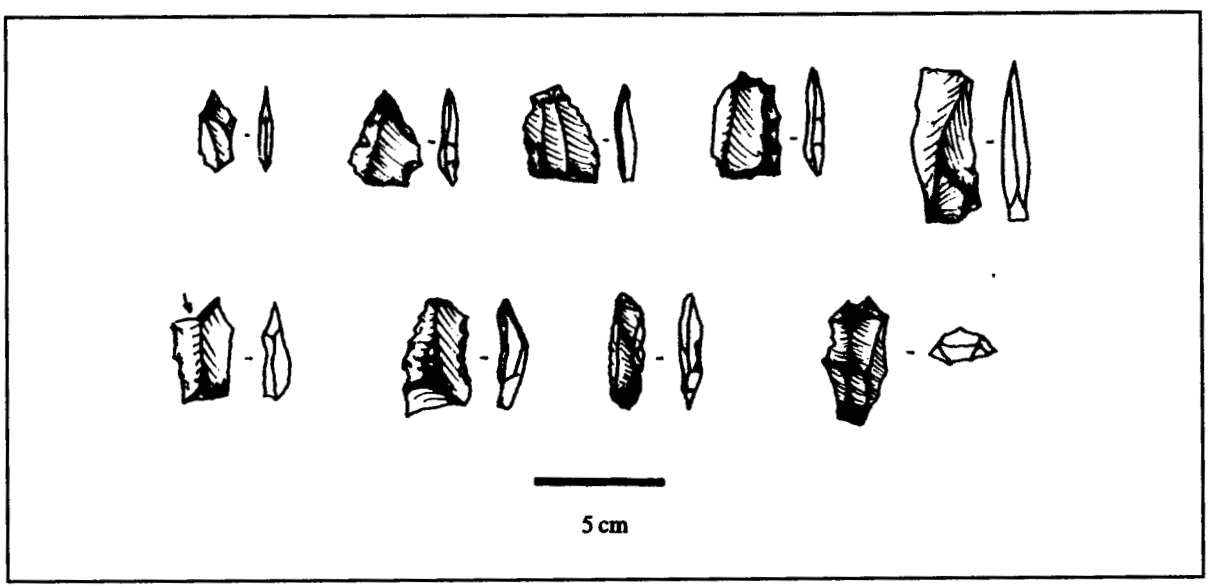


Table 1: Inventory of sites.

Sites and Monuments Register (SMR) Number	Site Name	Cultural Attribution
25	Mai Hine/Mai Liham	ESA
4	Adi Hahno	MSA
5	Mai Hine	MSA
7	Mai Hine	MSA
13	Mai Mesanu	MSA
14	Mai Mesanu	MSA
31	Wokar Diba	MSA
9	Mai Hine	MSA-LSA
33	Mai Zegaf (rockshelter)	MSA-LSA
20	Semema/Mai Meserab	LSA mode 4
8	Mai Hine	LSA mode 5
18	Mai Hine	LSA mode 5
26	Gumelo	LSA mode 5
27	Gumelo	LSA mode 5
28	Tsarad Imni	LSA mode 5
30	Mai Adrasha	LSA mode 5
32	Mai Zegaf	LSA mode 5
36	Mai Gushella	LSA mode 5
37	Adi Zuwai	LSA mode 5

More can be said about the Shire region LSA corpus. The local LSA industry is characterized by the use of a much broader range of raw materials than in preceding phases, mainly as variable microcrystalline quartz (i.e., different colored chalcedony and cherts), with a small amount of obsidian imported from large distances away. Only a small number of obsidian elements were noted in LSA contexts at Aksum, but during the Pre-Aksumite and Aksumite periods utilisation of obsidian decidedly is more widespread. This may indicate a further consolidation of regional trade and exchange networks under the aegis of the centralized polity itself, but inland trade is otherwise attested as far as the Nile Valley in the early-mid Holocene (Phillips 1997). Some of the obsidian obtained during Aksumite times may have come from as far as the Dahlak Islands in the Red Sea (e.g. Blanc 1952), although other sources are closer. It should be noted that fully microlithic stone tool industries are very rare in the northern Ethiopian highlands; regional LSA/mode 5 industries here are characterized by microliths in small proportion, associated with an equally small proportion of variform scrapers. Variably utilized flake forms, fabricated largely from single-platform cores and from a wide variety of raw materials, are the most numerous elements in northern Ethiopian LSA assemblages. It must be emphasized that at the moment the Shire material has but a rough chronological resolution, and although it bears good comparison with the relatively better dated Aksum material, it is only through future excavation of selected sites (of which there are a good number) that we will be able to understand better the prehistory of a geographically important area at the interface between the Sudanic steppes and the higher Ethiopian plateau.

Acknowledgements

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