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THE ARCHAEOLOGICAL LANDSCAPE OF THE SHIRE REGION, WESTERN TIGRAY, ETHIOPIA

Niall Finneran *et al.* [1]

This report is respectfully dedicated by the team to the memory of the late Ato Gebre Kidan Wolde Hawariat, our erstwhile colleague and true friend, who spearheaded and helped develop this project, and for many years sought to promote the archaeological importance of Shire. He is missed.

Introduction

Although the major focus of archaeological activity in the northern highlands of Ethiopia has been Aksumite polity development (e.g. Fattovich *et al.* 2000; D. Phillipson 2000), other recent research has sought to understand its prehistoric landscape (e.g. Agazi Negash 1997; Finneran 1998). Concurrent ethno-archaeological studies have illuminated the socio-economic complexity of a unique highland agricultural system of unknown antiquity (D'Andrea *et al.* 1997). Archaeological perspective of the Aksumite polity has always looked eastward. Studies have been undertaken along the littoral and the corridor to the Red Sea, but hitherto little attention has been paid to the putative cultural links westward to the Sudan steppes and Nile valley. Intensive work in eastern Sudan, in the Gash Delta region around Kassala, has thrown considerable light on its cultural and ecological developments over millennia, and the evidence indicates clear socio-cultural links with the Ethiopian plateau (e.g., Fattovich 1988; 1993). Archaeologically, however, the north-western highlands of Ethiopia largely remain *terra incognita* (Phillips 1997a; 2000). The ultimate goal of the survey programme outlined here is to realise the archaeological potential of a hitherto largely unstudied although undoubtedly important area.

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The project originated in several day-visits to Shire by team members of the 1993-97 British Institute in Eastern Africa's excavations (BIEA) at Aksum (D. Phillipson 2000), as guests of Ato Gebre Kidan Wolde Hawariat (Tigrai Bureau of Information and Culture TBIC, Indaselassie). Its potential was obvious, and we began to devise a survey project in collaboration with him, incorporating both archaeological and ethnographic elements. We returned for a short pilot season in 6-30 November 2001, to test the viability of several possible research avenues. These included:

1. Initiate a survey of the study area, first visiting known sites and identifying key areas for further investigation of Shire's prehistoric, historical and contemporary use.
2. Initiate regional artefact typologies.
3. Survey present-day crops grown and land-use patterns, together with animal husbandry and use, to determine present subsistence and economy.
4. Initiate a sample collection of present-day botanical and zoological material.
5. Record oral history and conduct personal interviews with elderly inhabitants, for subsequent ethnographic and anthropological work.

Introducing the Shire archaeological landscape

Shire is the name given to the Western Administrative Zone, Tigray, whose administrative centre is Indaselassie, a town situated some 50 km. west of Aksum (figure 1). Indaselassie lies at an altitude of 1900 m., on the main Aksum-Gondar road about 1 km. north of the original town of Adi Wofito/Old Shire that had been abandoned during the Italian occupation (1936-41). Local informants suggest Old Shire originally was founded during the reign of Sayfu Arad (1344-71), and visited by the noted Scottish traveller James Bruce. Suggestions that the Italians destroyed the old town are negated by local oral history and interviews by Ato Asfaw Arefaine with its older inhabitants. They say abandonment was primarily an economic process, not a catastrophic event, the population ebbing away to the new settlement over a number of years.

Indaselassie has had economic and political significance only in very recent times, a consideration important for interpreting the history of its surrounding landscape. The small village of Semema, 17 km. to the north-northeast and on the old direct road to Aksum, was the centre of the local administrative unit (*woreda*) until 1991. Semema was downgraded to *tabia* (village administrative unit) status in 1992, a far cry from its legendary founding by Menelik I and its importance to the *gult* system of Maryam Tsion, Aksum (*gult* is the now defunct system of land holdings, associated especially with monastic and other ecclesiastical estates. For a fuller exposition see Crummey 2000: 9).

South of Endaselassie is a large, flat vertisolic plain, cut at intervals by deep river gorges feeding into the Takezze river. Steep escarpments of metamorphic rocks, mainly syenites, form a large mountainous block immediately north of the town. Farther north, beyond Semema towards the Ethiopian-Eritrean border, are vertisolic plains cut by gorges feeding northwards into the Mareb River.

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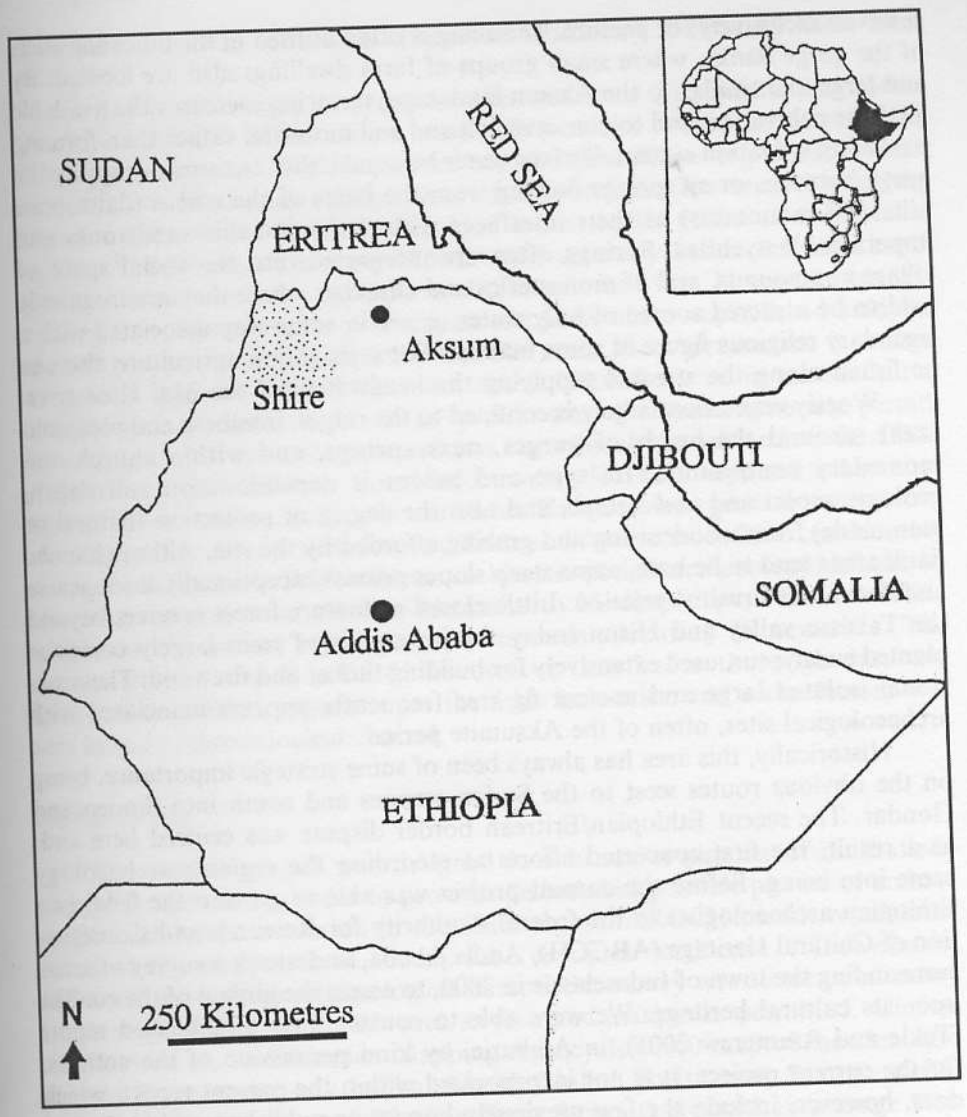

1. **Location of the Shire region within northeastern Africa.**

Although lower than Aksum by an average 1000 m., local ecological and topographical conditions do not differ markedly, except around Shire's fringes, west towards the Sudan steppes and in the low bases of the deep river gorges both north and south.

The nature of the local rich, dark vertisolic soil complex and dependable rainfall patterns allow for a generally stable agricultural base, founded on mixed cereal cultivation and stock-keeping, although in a few cases the poorer, redder lithosol soils also are cultivated. Much of the latter remains fallow and some is

reserved exclusively for pasture. Terracing is often utilised in the lithosolic areas of the gorge flanks, where small groups of farm dwellings also are located. By and large and similar to the Aksum landscape, terracing increases the available land for cultivation and to conserve soil and soil moisture, rather than forming part of an irrigation system. Surface water is found either as rivers occupying the gorge bottoms, or as springs flowing from the bases of the *ambas* (flat-topped hills and mountains) at their interfaces with the permeable sandstones and impermeable syenites. Springs often are integrated into the social space of village compounds, and of monasteries and churches where they are frequently held to be a sacred source of holy water or are in some way associated with a legendary religious figure in some manner. Some irrigation agriculture also can be found along the streams supplying the headwaters of the Mai Hine river.

Woody vegetation largely is confined to the ridges, inselberg and piedmont areas, around the heads of gorges, near springs, and within church and monastery compounds. Its type and extent is dependant on soil depth, geology, aspect and *amba* slope, and also the degree of protection (natural or man-made) from woodcutting and grazing afforded by the site. Although *amba* flank areas tend to be bare, some steep slopes possess exceptionally thick acacia and deciduous brush vegetation. Little closed or mature forest survives beyond the Takesse valley and Hirmi today. Major stands of trees largely comprise planted eucalyptus, used extensively for building timber and firewood. The occasional isolated large and ancient fig tree frequently appears associated with archaeological sites, often of the Aksumite period.

Historically, this area has always been of some strategic importance, being on the obvious routes west to the Sudan steppes and south into Simien and Gondar. The recent Ethiopian/Eritrean border dispute was centred here and, as a result, the first concerted efforts at recording the region's archaeology came into being. Before the current project was able to go into the field, two Ethiopian archaeologists in the federal Authority for Research and Conservation of Cultural Heritage (ARCCH), Addis Ababa, undertook a survey of areas surrounding the town of Indaselassie in 2000, to assess the impact of the conflict upon its cultural heritage. We were able to consult their unpublished report (Tekle and Asamerew 2001), in Amharic, by kind permission of the authors for the current project. It is not incorporated within the present report, which does, however, include the few previously known or published archaeological sites in the Shire region.

Before Tekle and Asamerew's (2001) survey, known sites in the Shire region were limited to the following: a possible standing Aksumite stela at Adhano, located 5 km. north of Indaselassie (Puglisi 1941: 100-3; Godet 1977: 35; Tekle 1997: 26); a Proto-Aksumite cemetery complex at Seleklekha, 30 km east of Indaselassie, where ceramic and bronze objects were recovered (Cossà 1945; Godet 1977: 55; Fattovich 1988: 90; Tekle 1997:26); Webla Maryam church at Semema, said to have Aksumite-era foundations and where rock-cut steps, stelae and miscellaneous artefacts were reported to Gebre Kidan (Tekle 1997: 26-7); and Hiritay, 1 km. south of Webla Maryam church, a possible early middle Aksumite-period cemetery and settlement site partially excavated b

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Gebre Kidan in 1994, with selected ceramics studied by JP (Phillips 1996; Tekle 1997: 26).

In addition to being shown these sites and their selected finds by Gebre Kidan, the 1993-97 BIEA Aksum team members also recorded two new sites during their day-visits. The first is Mai Mesanu (Site 13), a large Middle Stone Age (MSA) scatter some 10 km. east of Indaselassie. The second site, Mai Adrasha (Site 19), some 5 km. east of Indaselassie, contains two related aspects. The first to be recognised is a small cemetery beside the main road, with stelae and ceramics exposed by bulldozers in 1996. It appears to date from at least Proto-Aksumite times, on the basis of an unpublished study of selected pottery by JP (Phillips 1997b). The main Mai Adrasha site is a large tell on the opposite side of the road, about 750,000 sq. m. in extent. Initial ceramic study indicates it too dates from at least the Proto-Aksumite period. All archaeological material collected was immediately transferred to the TBIC authorities in Indaselassie. Local informants also have reported other sites beyond current survey parameters to Gebre Kidan in very general terms.

Systematic survey carried out by Tekle and Asamerew in 2000 considerably enlarged this picture. Tekle's focus on historic-period archaeology defined 16 new sites ranging from the Pre-Aksumite to Mediaeval periods. Asamerew undertook the survey's prehistoric component, locating 20 new sites. The current project, which included Asamerew, thus had a thorough database upon which to build, especially for the lithic industries, and a satisfactory —if very broad— chronological control.

Methodology

The current project was designed to subsume a number of multi-disciplinary components in order to provide the broadest possible picture of archaeological landscape evolution in the Shire region. ARCCH permit regulations delimited the study area to 100 sq. km., east and north-east of Indaselassie. The basic goal of the archaeological component survey was to locate as many archaeological sites within this area as time and manpower permitted. All sites were located on an Ethiopian Mapping Agency 1:50,000 map of the area, and plotted more accurately by hand-held Global Positioning System (GPS) apparatus. The model used (Garmin Etrex Summit) attained an average 8 m. degree of accuracy. Additional site details, including local geomorphology, land use patterns, chronological attribution, site size and artefact density, were recorded on pro-forma survey sheets. All new sites were numbered individually from 1 onwards.

The survey information has been processed in two ways. Firstly, utilising the variables described on each site survey sheet, spatial and chronological information has been manipulated using a simple GIS package. These data have also served as the basis of a local Sites and Monuments Register (SMR), to which those recorded earlier by Tekle and Asamerew (2001) and others have been incorporated. This is an innovative approach within an Ethiopian context to the recording and conservation of an archaeological landscape. We have based

our model on the framework of SMRs used in the U.K., where individually numbered sites are located on large-scale maps and cross-referenced to detailed data sheets. The latter provide site descriptions and any risk assessments. The register is designed to be easily used, simple to consult and self-sustaining; new sites and information both can be added at any time. It ultimately will reside at the TBIC office at Indaselassie, and a specially translated form in Tigrinya is being prepared for this purpose. In addition to providing a useful tool for scholars, the register also will be available for consultation by building or land developers before commencing work. It will thus enable more informed judgements to be made about the potential archaeological importance, and therefore sensitivity, of a given area.

In addition to foot survey, a parallel programme of ethno-archaeological research was initiated, focussing on local agriculture. Supporting archival research was undertaken in Indaselassie. Oral history interviews with village elders elicited their perceptions of change within agricultural practices and land use over their lifetime. They often also could provide more up-to-date perspectives on some of the major archaeological sites encountered, as well as greatly assisting in identifying new sites of interest. Local monastic complexes, also visited, themselves may become the foci of detailed ethno-archaeological study as organised religious communities. Wherever possible, we consulted monastic archives to elucidate regional mediaeval settlement patterns, and to aid reconstruction of former landholding and economic systems centred on religious communities.

Preliminary ethno-archaeological research (CC and MH)

Ethno-archaeological study of modern agricultural practices within the survey area is an important component of the overall research design, and seeks to complement and extend recent work at Aksum (D. Phillipson 2000) and the wider Tigray area (e.g., D'Andrea *et al.* 1997). The basic aims, as defined by Ms Sheila Boardman and tested for potential suitability are: to identify types of agricultural produce in the area today; locate appropriate villages for study and conduct initial interviews with local farmers on recent changes in land use, crop selection, and other cultural features related to agriculture; devise initial impressions of the differences in agricultural land use across the survey area requiring further exploration; and collect crop specimens for subsequent identification.

Cereal cultivation forms the core component of the local farming system. *Tef* (*Eragrostis tef*) is by far the most common crop under cultivation, followed by finger millet (*Eleusine coracana*). Maize (*Zea mays*) occasionally is seen growing in open fields, but more commonly observed in small plots adjacent to settlements. Maize also is the only intercropped cereal observed, commonly associated with castor, peppers, sunflower and squashes. Some sorghum (*Sorghum sp.*) was noted in fields on open plains south of Indaselassie. Small amounts of *noog* (*Guizotica abyssinica*) and sesame (*Sesamum indicum*) also are cultivated. Gorge bottoms, with their distinctive microclimate and sheltered

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A broad variety of farming compound types was found within the area, usually containing multiple structures, either rectangular or the classic circular thatched or sheet metal-roofed *tukul*, surrounded by a stone wall. Adjacent small fields (< 35 m^2) provide small-scale mixed cereal cultivation, as do small gardens within the compounds themselves. No perceptible difference was noted between compound types in the piedmont and gorge-edge settlements.

Two villages suitable for future ethno-archaeological research were chosen for observation and interview. The first, Dungur ("place of stones") is located above an extensive area of open pasture with swampy areas on north-east-facing *amba* flanks. Interviews with three elderly farming inhabitants yielded a broad socio-historical picture of village life over the last thirty years or so. In common with other areas of Imperial (pre-1974) Ethiopia, village land tenure was based on *rist*, the inalienable right of peasants to own and inherit land. Land was collectivised after the advent of the Marxist *Derg* in 1974. The new Tigray People's Liberation Front (TPLF) administration redefined the collective system in 1989 and 1991, giving one hectare of land to a married couple and another for all the children. Land ownership now is defined and controlled by the local government and a village administration (*tabia*). Land allocation is shared on the death of a parent, and newcomers to the area must petition the government to obtain new land. In general, local grazing land is communally owned, and strict prison sentences penalise those who cultivate or settle here.

A number of variables apply to stock-keeping. Grazing land in most cases is insufficient to support the local sheep/goat/cattle herds, so villagers send them to the low-lying hot *qwolla* lowlands adjacent to the Takezze river between June and December. Cattle are widely used as draught animals, and in some cases teams of oxen are shared amongst households. Bride wealth also is an important factor, 2-5 head of cattle being quoted as the norm although much larger numbers were involved in Imperial times. A wide variety of the expected crops were grown in and around the village, including four varieties of maize (colloquially known as *asgedom, wolde arba, changar* and *berihu*), which generally are smaller than types encountered elsewhere in the region. A variety of legumes, squashes, oil plants, fruit and spices also were observed under cultivation in and around the village. Near Eastern crop types, such as barley and emmer wheat, are uncommon. The national government is actively attempting to introduce improved varieties of *tef* and maize into the local agricultural system. How far this programme has been realised, and its potential effect on the genetic make-up of local crops, currently is unknown.

The second selected village, Quoquage, is located on the flat vertisolic plain south of Indaselassie, approximately 1 km. south of Mai Adrasha (Site 19) along the edge of a gorge approximately at the interface of the lithosolic/vertisolic complexes. Much of the local land is reserved for pasture, with very little cereal cultivation noted. Such is the poor quality of the area's lithosols that people tend to grow less millet and sorghum, concentrating on *tef* and maize

cultivation in small fields adjacent to their compounds. Dung is frequently used to increase the thin lithosol productivity, and soil burning also is practised.

Fields produce only one crop per year, and it is apparent that the overall agricultural productivity of this area is considerably less than that noted at Dungur. Again, as at Dungur, many of the village cattle are sent to the *qwolla* zones for wet-season grazing. Only one inhabitant actively engages in apiculture, collecting swarms from trees in small, circular clay hives, then moving them into huts within his compound. Honey is an expensive commodity, sold in the market with dairy products.

The local market plays a key role in the agrarian economy. The team undertook several visits on market day (Saturday) to gain a basic idea of urban/rural trade and exchange dynamics. Some problems were encountered in gaining detailed economic information, as foreigners are only very rarely seen in Shire, and some degree of mistrust still exists among rural and urban populations alike. The following basic picture may be noted. Urban-based industries from the region and beyond provide for the material needs of rural and urban households, e.g., lamps, cookers, clothes and electrical and metal goods. Pottery production normally is a strictly defined female role in both town and country. Foodstuffs and animal skins come from the rural hinterlands. Spices are especially valued and a wide variety of both locally produced and imported products are sold, including sesame, ginger, peppers, and garlic. Staples, such as cereals, coffee and lentils, as well as a variety of fruit and vegetables, also are available.

Several further factors are key for the region's wider agrarian view. The local *woreda* (administrative division) agronomist interviewed, Ato Haile Abbay, noted the trend towards a more centralised agrarian strategy. Certain cereal types are sold to peasants for cultivation. Coffee-planting and garden-complex vegetable and fruit production especially are encouraged. Field study confirmed that cotton and emmer wheat growth is not a factor in this region, but use of fertiliser and soil-burning is extensive and widespread. Local and national level governments also are keenly interested in animal husbandry matters. Western-style beehives gradually are being introduced in lieu of traditional versions, resulting in improved quantity and quality of honey yields. Promotion of hide manufacture for onward transport to urban markets also is being actively pursued.

This preliminary ethno-archaeological study has raised a number of interesting points meriting future detailed investigation. Agricultural productivity in different local ecozones, and agricultural emphasis of settlements having different soil types is directly affected by their immediate situation. How much this productivity and range of ecozones affected the agricultural base of the region's early complex settlements remains open, but archaeological evidence, discussed below, indicates this region clearly did witness an early manifestation of social complexity possible only with a dependable agricultural base. Noticeably also, direct local and national governmental interest in agrarian development will have a profound impact on Shire's economically traditional ways of life. This naturally is welcome in the humanitarian view, but further detailed

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ethno-botanical and social anthropological research is needed to document traditional agricultural socio-economic practices (and indeed the impact of imported crop genetic resources) before they disappear.

Sites of the prehistoric periods

The survey recorded one Early Stone Age (ESA) site and multiple Middle Stone Age (MSA) and Late Stone Age (LSA) sites. The industries in this region may be broadly characterised as follows, on the basis of a random collection strategy. Their SMR numbers and general locations are tabulated below.

25	Mai Hine/Mai Liham	ESA
7	Mai Hine	MSA
13	Mai Mesanu	MSA
31	Wokar Diba/Enda Mariam Gibtzawit/Tabia Lemlem	MSA
9	Mai Hine	MSA-LSA
33	Tabia Lemlem/ Mai Zegaf	MSA-LSA
20	Semema/Mai Mesereb	LSA mode 4
8	Mai Hine	LSA mode 5
26	Gumelo/Ruwa Adaga/ Tatay Koraro Woreda	LSA mode 5
30	Tabia Mai Adrasha	LSA mode 5
32	Tabia Lemlem/Kushet Mai Zegaf	LSA mode 5
36	Tabia Mai Adrasha/Mai Gushella	LSA mode 5
37	Tabia Lemlem/Adi Gedat/ Adi Zuwai	LSA mode 5
22	Semema	LSA mode 5 (in Post-Mediaeval compound)

Although the Early Stone Age (ESA) industries of Ethiopia and the neighbouring lowland zones of the Horn of Africa are fairly well studied (e.g., Chevaillon 1976), our knowledge of the earliest populations in this corner of the northern highlands is scant. Laurel Phillipson identified a small number of derived, highly rolled but distinctive ESA pieces across the Aksum survey area in a recent surface survey (D. Phillipson 2000: 17), although the chronological attribution of this material is not clear. It would be perhaps more appropriate to suggest that this material is of "an ESA form" rather than arguing for a high antiquity for the site. Major tool types included radial abraded prepared cores and an Acheulean hand axe.

Based on blade form fabrication (cf. Finneran 2001), two sites (SMR nos. 9; 33) show elements of two occupation phases, and only one (20) is a single-phase LSA/mode 4 occupation. The remaining MSA (7, 13, 31) sites show evidence of a homogenous MSA/mode 3 occupation, whilst the other LSA sites are largely of a mode 5 character, with no evidence of any mode 4, blade-based industries. It should be noted at the outset that fully microlithic stone tool industries are very rare in the northern Ethiopian highlands. Regional LSA/mode 5 industries here are characterised by microliths in small proportion, associated with an equally small proportion of formal, retouched scraper forms, the largest component being variably utilised flake forms largely from single-platform cores in a wide variety of raw materials. Comparative databases are Phillipson (1977) and Finneran (2000a; 2000b). Clark (1988) is a broad regional overview of the MSA and, for the LSA, see Brandt (1986).

The only ESA site was located within in the Shire survey, SMR no. 25, is an extensive and fairly dense scatter of ESA/mode 2 very roughly-grained quartzite lithics with Acheulian features extending c. 60 m. across the Mai Hine gorge flanks. A distinctive hand-axe, measuring 160 by 81 by 41 mm., is diagnostic of ESA/mode 2 industries throughout eastern Africa (Chevaillon 1976; D. Phillipson 2000: 17). Its dorsal surface has two main linear scars, with rough retouch along one edge. A selection of this material (all quartzite) is shown in figure 2. The remainder of the collected elements consisted of variably utilised 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 analysed, both less than 10 mm. long, bearing slight retouch along a single edge and, occasionally, very heavy hinge fracturing. Surface patination and abrasion vary, but the predominantly lithosolic soil matrix appears minimally disturbed towards the southern edge of the site. Clearly, it would repay controlled excavation.

MSA material is readily recognised by use of prepared-core technology and a rather limited raw material repertoire (figure 3 shows a selection of the Mai Mesanu material, micro-crystalline quartzes). Variably-utilised 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 with evidence of a prepared core technology). Points are very rare. Radial types dominate the cores. In contrast to ESA material micro-crystalline quartzes dominated by a brown/red chalcedony, with occasional chert, sandstone, quartzite, breccias, mudstone and conglomerate 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.

The only single-phase LSA/mode 4 (or long-blade) site noted is Mai Mesereb (SMR no. 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 definitio

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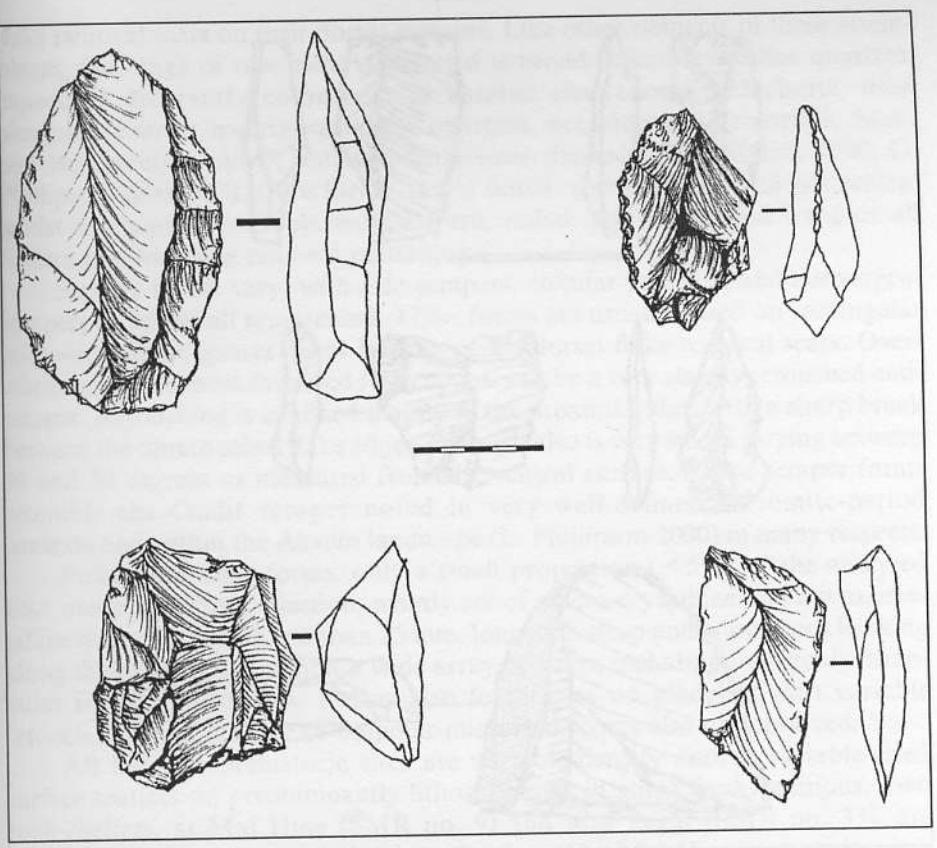
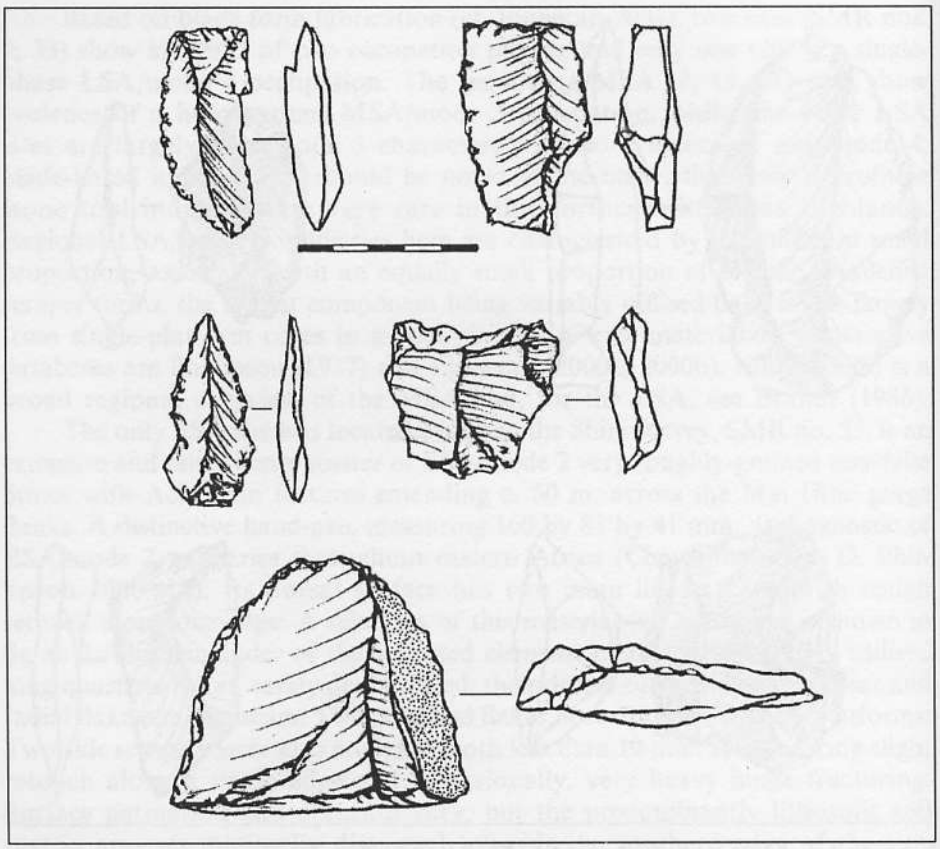


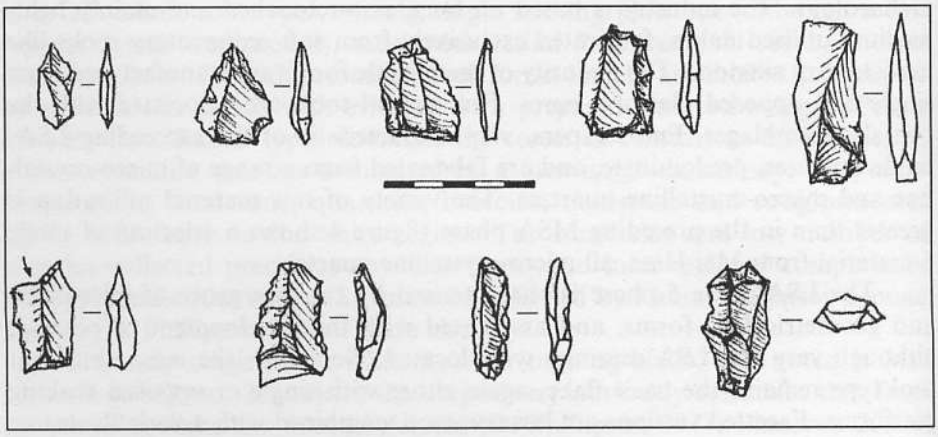
2. **A selection of ESA material from Mai Hine (site 25). Scale 5 cm.**

of this probable early-mid Holocene industrial phase, and its problematic connections with the recognised three-age terminology of African prehistoric archaeology. The industry is based on long, non-retouched and mainly light-medium utilised 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 macro-crystalline quartzes. The variety of raw material utilisation is greater than in the preceding MSA phase (figure 4 shows a selection of mode 5 material from Mai Hine, all micro-crystalline quartz).

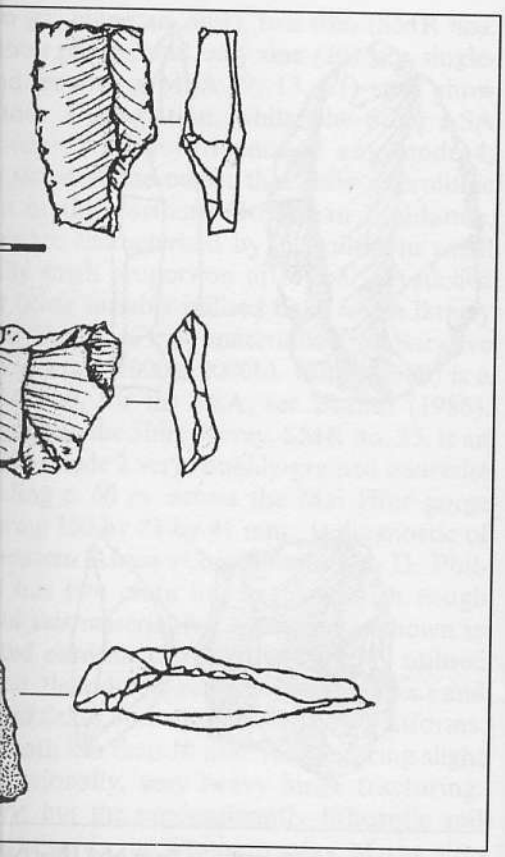
The LSA/mode 5 phase is characterised by the emergence of microlithic and geometric tool forms, and associated with the development of pottery, although very few LSA ceramics were located. Generally, the most abundant tool type remains the basic flake, again either with single or opposed striking platforms. Facetted versions are less common, combined with a variable degree of utilisation, and a roughly equal proportion of flakes bearing linear and radial



3. **A selection of MSA material from Mai Mesanu (site 13). Scale 5 cm.**



4. **A selection of LSA material from Mai Hine (site 8). Scale 5 cm.**



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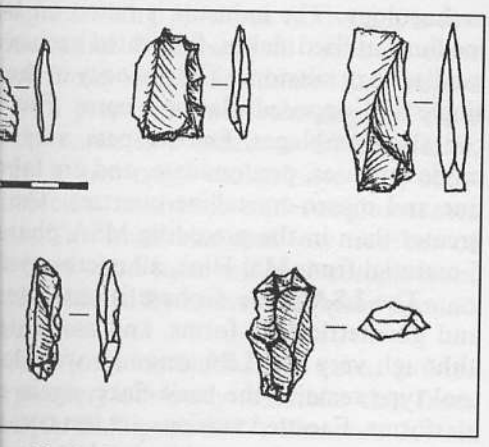

ne (site 8). Scale 5 cm.

flake removal scars on their dorsal surfaces. Like other elements of these assemblages, the range of raw material selected is broad: micro-crystalline quartzes, especially differently coloured and banded chalcedony and cherts, used alongside coarser macro-crystalline quartzes, 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 favoured form appears to be a very steeply retouched end-scraper. Retouching is confined mainly to the proximal edge, with a sharp break between the 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 and within the Aksum landscape (L. Phillipson 2000) in many respects.

Fully microlithic forms, only a small proportion ($< 5\%$) of the analysed LSA mode 5 surface collection, mainly are of macro-crystalline and micro-crystalline 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.

All but two prehistoric sites are variable-density and/or variable-sized surface scatters on predominantly lithosolic soils in gorge flank positions. Two rock-shelters, at Mai Hine (SMR no. 9) and Mai Zegaf (SMR no. 33), are worthy of further more detailed investigation. 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-Mediaeval 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 (Asamerew *et al.* 2002), its upper matrices have been disturbed considerably.

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 elucidate the overall picture. The scant ESA material noted in the region, both raw material preferences and tool forms, broadly conforms with that recognised as characteristic ESA/

mode 2 lithics from the rest of the Horn of Africa and eastern Africa. The MSA picture is similarly bald at the regional level; a broader range of raw material utilisation is now widely noted. The characteristic forms of mode-3 industries in eastern Africa, based on prepared-core techniques, may be recognised in the Shire material. On the basis of a very generalised regional comparison, these industries probably persisted until the late Pleistocene period when more fully developed mode-4 long-blade industries idiosyncratic to north-eastern Africa began to emerge that are probably best represented by the Aksum surface collections. The local LSA industry again is characterised by the use of a much broader range of raw materials, mainly as variable micro-crystalline quartzes (i.e., different coloured chalcedony and cherts), with a small amount of obsidian imported from large distances away.

Only a small number of obsidian elements were noted in the LSA Aksum region assemblages, 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 centralised polity itself. Some of the obsidian utilised 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 must be emphasised 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 area material, only through future excavation of selected sites (of which there are a good number) will we be able better to understand the prehistoric stone tool industries of the area that interfaces with the Sudan steppes and the higher Ethiopian plateau.

Proto-Historic and Historic sites

A number of "historic" sites were noted and described during the survey some previously recorded. In most cases the surface material was sufficient to ascribe a basic dating within the chronological scheme developed at Aksum by JP (D. Phillipson 2000). These sites have been defined in the regional SMR as follows:

19	Mai Adrasha	Pre-Aksumite/Aksumite cemetery and settlement
1	Hiritay	Aksumite town ? and cemetery
6	Mai Hine	Aksumite ceramics and possible habitatio
21	Semema/Enda Ona Libanos	possible Aksumite stela at Mediaeval church ; unknown if in situ
29	Adi Nakasi Adegi	Aksumite stela ceramics
2	Semema/Webla Maryam	Aksumite remains at Mediaeval Church

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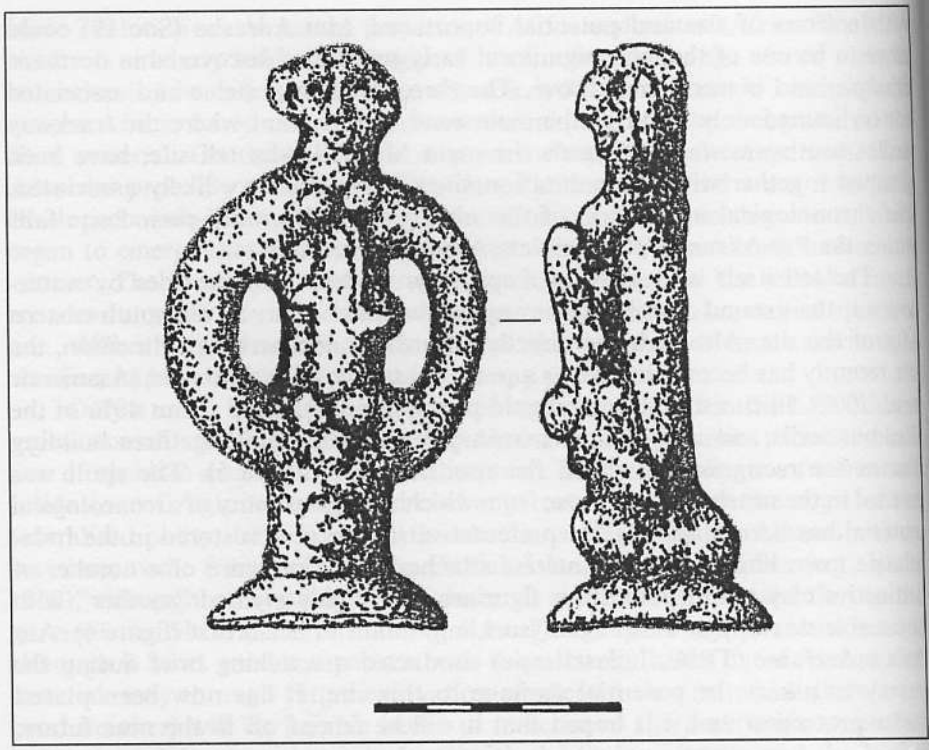
sumite remains at Mediaeval Church

In terms of size and potential importance, Mai Adrasha (Site 19) could prove to be one of the most significant early town sites discovered in northern Ethiopia, and is mentioned above. The three recumbent stelae and associated pottery immediately north of the main road, at the point where the trackway strikes south-westwards towards the main Mai Adrasha tell site, have been grouped together with the habitation site as they are very likely associated. The chronological attribution of this clearly extensive multi-period site falls within the Pre-Aksumite through late Aksumite periods.

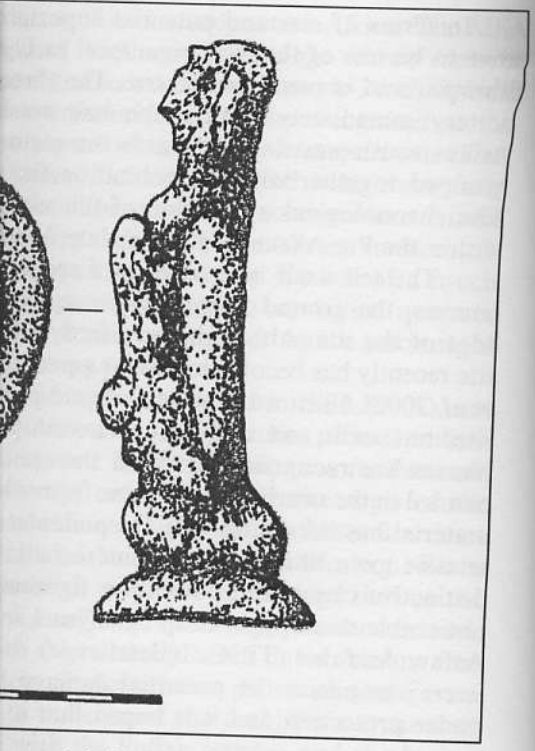
The tell itself is located on a spur surrounded on three sides by watercourses; the ground falls steeply away to the main river, at the south-eastern edge of the site. Although not directly affected by encroaching cultivation, the site recently has become known as a potential source of natural gold (Asamerew *et al.* 2002). Illicit excavation and gold panning has damaged about 40% of the site, but walls and well-dressed masonry representing at least three building phases are recognisable within the resulting pits (figure 5). The spoil was panned in the nearby watercourse, from which a large quantity of archaeological material has been removed. A representative sample now is stored in the Indaselassie town library. Special interest attaches to the presence of a number of distinctive clay anthropomorphic figurines of a highly stylised "mother" with noticeable steatopygia clasping a (?suckling) infant to her breast (figure 6). Ato Asfaw Arefaine (TBIC, Indasellassie) conducted a watching brief during the survey to assess the potential damage to this site. It has now been placed under protection and it is hoped that it will be fenced off in the near future.

5. **View of destruction at Mai Adrasha (Michael Harlow).**



6. **Clay human figurine from Mai Adrasha recovered during illegal excavation and now in the local museum. Scale 5 cm.**

Two other important sites of probable Aksumite date, also mentioned above, have been identified in the Semema area. Gebre Kidan investigated Hiritay (Site 1), on the riverbank north of Webla Maryam church, in some detail. Red/grey Aksumite ceramics, all appearing fairly fresh and well preserved, were noted eroding in some quantity from the riverbank. Nearby quarrying activity above the river flanks still presents a risk to the site. The church of Webla Maryam (Site 2) itself may also incorporate Aksumite elements. The compound contains both a square and a circular church. The recently renovated square church is constructed atop a large, solid podium possibly of Aksumite date (figure 7). A flight of rock cut steps and some fragments of dressed stone within the compound provide further evidence of Aksumite connections. Outside, adjacent to the gatehouse and facing the village, a dressed stela and base-plate have been re-erected in recent times. A smaller site containing extensive Aksumite ceramic material and/or structure was noted during the survey. Mai Hine (Site 6) yielded walls and ceramic material eroding from a section some 30 m. long beside the path down to the river, below an extensive farming compound. The ceramics collected appear to be Aksumite in date.



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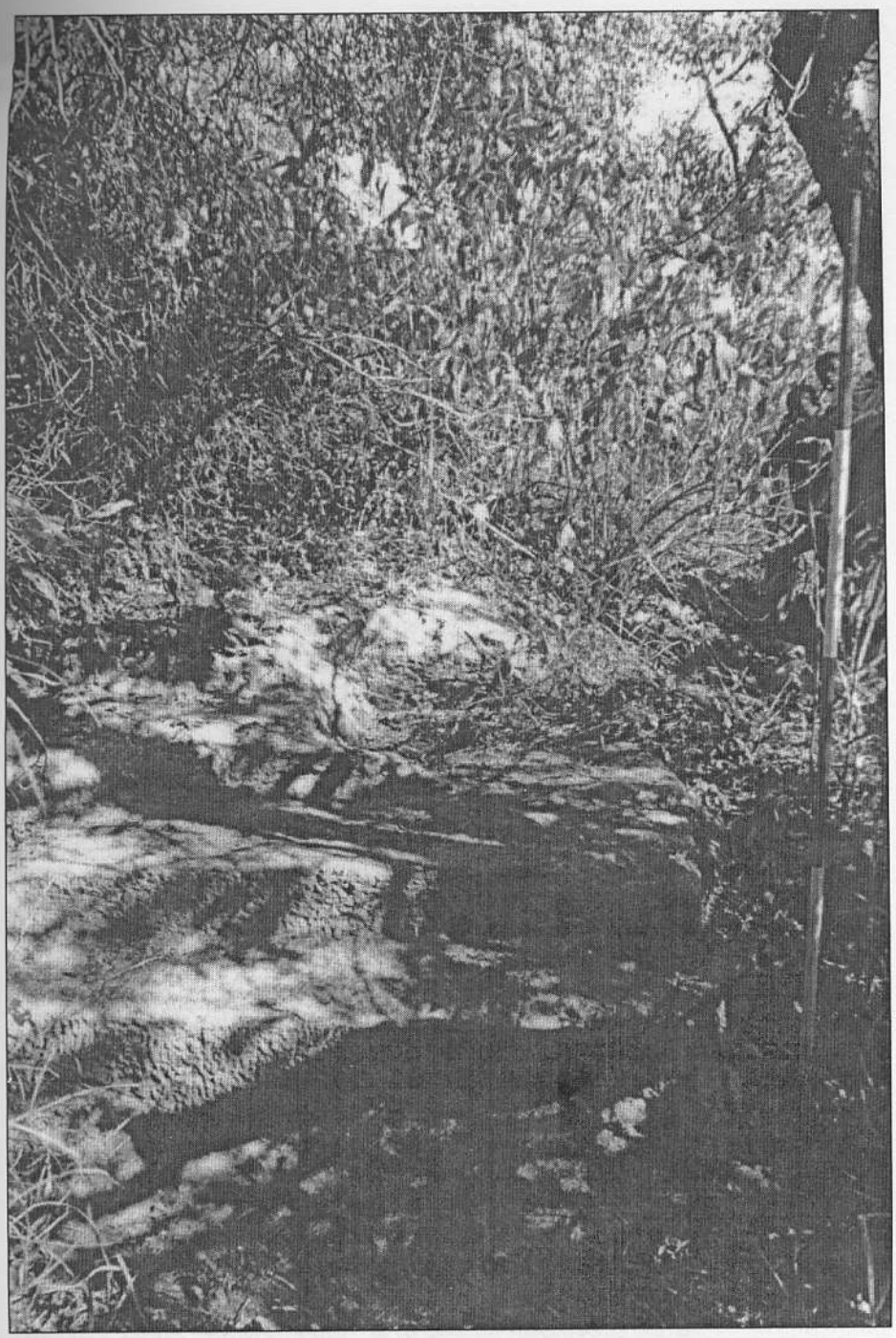

7. **Semema: Webla Maryam church and the possible Aksumite-period podium beneath (Michael Harlow).**

Mediaeval and Post-Mediaeval sites

Several key research questions surround the location and identification Mediaeval and Post-Mediaeval period sites. Perhaps the most obvious perta to the nature of our archaeological knowledge of Mediaeval Ethiopia, i. after the decline of the Aksumite polity. Archaeological surface survey Ethiopia generally ceases to recognise cultural remains after the Aksum period, so the Mediaeval period is very understudied. The archaeology Ethiopian monasticism, in comparison to mediaeval Nubia and Egypt, h received comparatively little attention. Our multi-period approach and dev opment of a workable regional SMR are intended partially to remedy th shortcoming. It is also important to recognise the importance of monasticis in consolidating political and religious control over newly-conquered areas. a rule, monastic establishments in Shire date from the era of King Dawit (1382-1413), when the region was finally subjugated and brought into t sphere of the Christian state. One goal of this survey is to identify archaeol gical remains of early monastic complexes and associated deserted mediaev villages.

Recognition of the significance of the ecclesiastical land-holding syste (*gult*) is necessary for any reconstruction of mediaeval landscapes as part the wider socio-economic picture, thus requiring initial identification of pa monastic-centred *gult* systems in the region. One of the key sources in defini ancient land-tenure systems is to be found in Ethiopia's rich historiograph heritage. Many historical studies (e.g., Huntingford 1965; Crummey 200 have defined and recognised the important role that monastic land tenu awards has played in the socio-economic life of rural Ethiopia, until i abolition under the *Derg* in 1974.

The origin of the name "Shire" is obscure. It may refer to Syrians settled the area at the time of the mythical king Menelik I. Alternatively, it may deri from a Tigrinya root meaning "he who is victorious" (Huntingford 1989: 9 but cannot refer to Dawit I's late 14th c. victories here over the Kunama pasto alists, as the name predates his land charters. Although documents purporting recognise *gult* claims much before the 11th c. are deemed to be of doubtf authenticity (Huntingford 1989: 61; Crummey 2000: 24), the earliest referen to the name "Shire" is found in an award of land tenure by the Aksumite Kir Ezana to the cathedral of Maryam Tsion, Aksum in the 4th c. An award of lar in "Sire" to the unidentified convent of Madara also is recorded under the 6th King Gebre Maskal. The name "Shire" increasingly occurs in political and leg documents in the 13th to 15th c., such as the 13th c. *Gadla Marqoweros* as "Sere and as "Sira" in the 14thc. *Amda Seyon's Glorious Victories*, amongst othe (Huntingford 1989: 99). A number of monasteries in northern Ethiopia we awarded land in Shire under Dawit I (Huntingford 1965: 33-4) and late emperors.

The following SMR designations refer to Mediaeval and Post-Mediaeva sites, discussed below:

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2	Semema/Webla Maryam	Mediaeval church
21	Semema/Enda Ona Libanos	Mediaeval church
23	Lemlem/Enda Abuna Aron Gedam/ Zukutur Ezzeheran	Mediaeval monastery
35	Tabia Lemlem/ Maryam Gibtzaywit	Mediaeval village
74	Giorgis	Mediaeval monastery
34	Tabia Lemlem/Hermi/Tsehuf Emeni	Mediaeval or Post-Mediaeval possible hermitage
22	Semama	Post-Mediaeval compound (also with an LSA component)

Perhaps the most important monastery in the immediate Indaselassie region is Giorgis (Site 74) on the summit of an *amba* some 2 km. east of Indaselassie. The walled compound consists of a church, a communal refectory and a number of associated *tukuls*, as living space for the 10 of the 100 attached monks who actually live in the monastery. Although nominally under the head of an abbot or *Debra Alekha*, the community is largely egalitarian and the monks mainly pursue communal agricultural pursuits in order to support the monastic community. Formerly, according to informants here, large amounts of grain and cattle actually were stored on site in vast storage pits that may have been situated at the entrance to the monastery in what is now an extensive overgrown area. Future archaeological survey, perhaps including resistivity equipment, could usefully be employed here to define the extent of earlier monastic phases, when the monastery reportedly was much larger than its present size.

A manuscript held in its "Treasury," hitherto not utilised by historians studying land tenure in northern Ethiopia, is of special interest for reconstructing the wider *gult* system formerly centred on this monastery. Tradition has it that this *Ge'ez* manuscript, the *Woingel Zawerk*, is of 3rd c. date, although that shown to us from the "Treasury" appears to date no earlier than the 18th c. It details gifts to the monastery from the time of Dawit I and his contemporary, the Patriarch Bartolomeus, in the 14th c. through to local *Dejazmatches* (local military functionaries) and later emperors such as Fasilidas, Dawit II, Bakafa and Iyasu I in the 17th to 18th c. Most awards consist of church furniture, goblets, vestments and cattle, the last specifically defined for eating on the feast day of St. George and, perhaps indicating greater reliance on monastic-controlled farming than is visible now, as draft animals. Land and villages also were given to this monastery over the years, from an initial award of 14 villages by Bartholemeus, enlarged to 25 by Emperor Fasilidas (1632-1667). Local informants helped us locate on a map some 18 of these 25 villages, all still inhabited. The place name "Wostah Gult" is of special toponymic significance, enshrining its importance as the first village awarded to Giorgis.

The small monastery of Enda Abuna Aron Gedam, Zukutur Ezeheran

(Site 23) presents a stark contrast to the wealth and size of Giorgis. This small compound of approximately 40 by 50 m. comprises a "mixed" church (ie. accessible to both male and female worshippers) located north of the compound, a spring with holy water covered by a concrete construction, and the main "males only" monastery with circular church, belfry, gatehouse and a single square two-storied dwelling for two resident monks. A single hermit also resides at the site. A single stela north of the church demarcates the male-only and mixed gender areas. Its age is uncertain, but the monastery itself, like others in the region, is a Dawit I foundation. The land awards that came its way largely lay on the poor lithosolic areas and, with the dismantling of the *gult* system in 1974, the monastery has struggled to survive. The two remaining monks are forced to rely upon the charity of local people. In every sense this monastery is a victim of its poor-quality *gult* land, and surely will be abandoned in a few years.

Two additional sites worthy of future archaeological investigation are the linked sites of Tsehuf Emeni (SMR no. 34) and Maryam Gibtzaywit (SMR no. 35) on the plain south of Indaselassie. The first, across the gorge from Maryam Medhanet church, consists of a bare granite rock covered with engravings of variform crosses and perhaps umbrella motifs. A cave beneath is inaccessible but, according to oral history research, may have been used as a hermitage and storage cave in Mediaeval times. The second is a deserted Mediaeval village incorporating the remains of the church of Mariam Gibtzaywit ("Mary of Egypt;" the significance of this name is unclear). Both probably were destroyed during the 16th c. incursions of Ahmed Gragn, the Harari Muslim warlord who ravaged the Christian kingdom of Ethiopia. The extensive standing remains of the Mediaeval settlement extend over 200 m. Three associated monoliths of uncertain age also stand, and the outline of the church building may be clearly discerned in the middle of a field. This complex certainly merits detailed resistivity survey and probably excavation.

Other Mediaeval and Post-Mediaeval remains also were noted. Enda Ona Libanos church (SMR no. 21) consists of a compound and gatehouse with a re-erected possibly Aksumite stela at its main entrance, located on a hilltop northeast of Semema. It is associated with SMR no. 22, a small abandoned probably Post-Mediaeval habitation compound with three *tukul* bases of c. 4 m. diameter noted within its 10 by 5 m. area.

Concluding Discussion

The wealth and rich variety of archaeological material described above, and the clear need for future multi-disciplinary ethnographic work all point to the Shire region having undoubted significance for human socio-economic development in the northern Ethiopian highlands from the very earliest times. We have amply demonstrated its archaeological potential; future collaborative ventures building upon this pilot season no doubt will add greatly to the overall view of the development of cultural landscapes across time, both in this important and much-understudied corner of Ethiopia and in the surrounding north-eastern Africa as a whole.

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future archaeological investigation are the
no. 34) and Maryam Gibtzaywit (SMR no.
. The first, across the gorge from Maryam
e granite rock covered with engravings of
lla motifs. A cave beneath is inaccessible
h, may have been used as a hermitage and
ne second is a deserted Mediaeval village
hurch of Mariam Gibtzaywit ("Mary of
name is unclear). Both probably were
ons of Ahmed Gragn, the Harari Muslim
n kingdom of Ethiopia. The extensive
ettlement extend over 200 m. Three asso-
lso stand, and the outline of the church
in the middle of a field. This complex
rvey and probably excavation.
iaeval remains also were noted. Enda Ona
s of a compound and gatehouse with a re-
its main entrance, located on a hilltop
d with SMR no. 22, a small abandoned
compound with three *tukul* bases of c. 4
m. area.

archaeological material described above,
isciplinary ethnographic work all point to
nificance for human socio-economic devel-
ighlands from the very earliest times. We
eological potential; future collaborative
eason no doubt will add greatly to the
cultural landscapes across time, both in
died corner of Ethiopia and in the sur-
hole.

All research avenues tested in 2001 indicate further investigation would be highly rewarding. By combining an integrated programme of archaeological survey, examination of historical documents, ethnographic study and oral history interviews, we have begun to develop a picture of the Shire landscape following the collapse of the Aksumite polity, that indicates an extremely close relationship exists between the features and capacity of the landscape and the social, economic and political factors within this region, that continues even up to the present day. The relationship between sites of the Mediaeval period and those of earlier, especially Aksumite, date also is confirmed for this region. The westward extent of the Aksumite polity, beyond Aksum itself, is confirmed and highlighted in the variety and urban character of sites dated to this period within the small area surveyed. This sophistication is apparent even in the Proto-Aksumite period, recognisable in its tombs and cemeteries. We already have identified a number of sites, Mai Adrasha in particular, suitable for further study and future archaeological investigation. The social and economic situations of even earlier periods also may be further illuminated by applying these data and information to sites not yet identified. We now have, for example, a recognisable developmental sequence of tool manufacture, together with a specific indicator of early widespread contact in the appearance of obsidian in the LSA lithic repertoire, for which great distances needed to be travelled.

On a more practical level, our multi-period focus has led to the implementation of what should be a self-sustaining and easy-to-use Sites and Monuments Record for Shire. A cost-effective tool for helping to manage its archaeological landscape and heritage, it above all is accessible to local people and may usefully serve as a template for similar strategies elsewhere in Ethiopia. The quick and decisive action taken to halt the destruction of Mai Adrasha is the fruit of collaboration not only with TBIC authorities, but also administrative authorities and local farmers. We also were able to construct a much-needed storage facility at the Indaselassie library to house finds collected during survey, in earlier work and chance finds handed over to TBIC. The collaboration of Ethiopian and foreign expertise has proved to be exceptionally fruitful, and it is hoped future survey (and possibly excavation) seasons may develop further from these firm foundations.

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