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New Light on Ancient Eritrea: Local Variations during the 1st Millennium B.C.E.

In the view of some scholars, "Pre-Aksumite" means a period of time when there is evidence for Sabaean influences from the Arabian Peninsula. These influences – whether in the form of appropriated material culture used by local elites or more direct diffusion from the Sabaean world – are defining attributes that mark off this time period from other post-holocene cultural periods in the northern Horn. Mere reference to the "Pre-Aksumite" period has taken on symbolic power – becoming a trope for an era of foreign influence, an era when local cultures accommodated and co-opted such influences to transform into the proto-Aksumite. This has become a problematic trajectory in the archaeology of the Horn, for it submerges local innovations and developments by privileging cultural influences external to the Horn.

This paper takes a path *away* from the homogenizing effects of tropic categories that typify archaeological classification. By examining the archaeology of the Greater Asmara region, I hope to avoid any hegemonic tendency to homogenize the "Pre-Aksumite" and instead shed light on the distinctiveness of the archaeological remains around Asmara – to illuminate how and why early 1st millennium B.C.E. development there diverged from other areas in the northern Horn. The first step in this process came when my colleagues and I designated the archaeological culture documented from 800 to 350 B.C.E. around Asmara as the Ancient Ona Culture (Schmidt / Curtis 2008; Schmidt / Curtis / Teka 2008). The Ancient Ona designation leaves behind some vexing cultural characterizations while also opening space for understanding variation within the region. Comparison between the "Pre-Aksumite" of Ethiopia and the Ancient Ona of Greater Asmara certainly affirms that there are affinities between these two zones within a larger region, but there are also noteworthy differences, differences that testify to unique developmental trajectories.

This is important for a number of reasons, foremost of which is that the Greater Asmara region departs significantly from other parts of the northern Horn in the more detailed knowledge we now have for subsistence practices. Heretofore subsistence practices, the stuff of quotidian life, have either been ignored for a focus on exotic and elite artifacts or have been discussed only for a cluster of sites at Aksum. There is virtually no evidence in the Horn for how communities varied within a sub-region in their subsistence practices during the 1st millennium B.C.E. The research around Asmara corrects for this deficiency and simultaneously providing a better understanding of daily economy linked to topography, water, soil, and climate.

Moreover, it is now apparent that in matters of ritual life and ideology the Greater Asmara research throws considerable light on the question of local belief systems and ritual practices that depart significantly from what we know from other sub-regions of the northern Horn. In particular, the presence of ritual objects known as "bulls' heads" around Asmara allow us to develop deeper insights into how cattle figure into the ritual life of the 1st millennium B.C.E. at a very local level and in a manner quite different from what appears to be the case in northern Ethiopia or even elsewhere in Eritrea. The ritual complex documented around Asmara can be shown to have clear social boundaries that are possible to delimit on the Asmara plateau, suggesting that propositions linking these artifacts to either rock art depictions or other representations of cattle in Arabia or the Horn only

serve to erase and submerge the distinctively local quality of the phenomenon.

There are also particular exploitative practices, such as the mining and processing of gold in the 1st millennium B.C.E., that help to explain some of the demographic clustering and population densities that occurred in the northern and western part of the Asmara basin – another developmental trajectory that differs from surrounding sub-regions. Finally, the architectural traditions documented thus far on the Asmara plateau show some clear contrasts with both the ancient and more recent traditional *Hidmo* architecture in northern Tigray while at the same time displaying some strong continuities that prevail over more than two millennia on the Asmara plateau. This again illustrates that knowledge about local variations helps to make representations about the 1st millennium B.C.E. that avoid homogenizing conclusions and that account for the wide variety of natural and cultural differences that occurred in the macro-region.

Thus, I propose here to make finer grained examinations of subsistence, ritual life, exploitative economy, and architecture within the Asmara basin to establish a comparative framework that goes beyond the commonalities that have arisen in a literature heretofore so deeply focused on outside influences at the expense of endogenous developments.

Substance: Insights into Sub-Regional Practices

I want to first examine how subsistence practices vary significantly across the 12 km × 17 km research universe around Asmara. This discussion is based on paleobotanical remains that were recovered through flotation after having been systematically sampled from all excavation units and all features with ashy deposits. The contexts for such recovery were particularly favorable, with hearths, kitchen floors, and ash discard areas providing the greater proportion of seed remains. Here I discuss five sites from which significant quantities of crop remains were recovered: Sembel, Mai Chiot, Mai Hutsa, Ona Gudo, and Weki Duba (D'Andrea *et al.* 2008) (Fig. 1). The first key observation is that food crops differed significantly across this sub-region, with quite different crop repertoires in the open, better-watered plains to the west of Asmara (Ona Gudo, Sembel, Weki Duba) compared to the rocky uplands north and east of Asmara (Mai Hutsa and Mai Chiot).

The more open plains have wide expanses of fields with few rocky outcrops (though they do occur in modest numbers) within 0.2–2 km of permanent water. This is a setting ideal for plow agriculture with the use of oxen, conducive for planting and harvesting – also using oxen for threshing – of large expanses of highly productive grains. Table 1 shows the range of crops documented at sites such as Sembel, Ona Gudo, and Weki Duba – all located on more open terrain. These communities relied mostly on emmer wheat (*Triticum dicoccum*) and hulled barley (*Hordeum vulgare*)[1], with barley forming a very large proportion of the grains in the deeper deposits at Sembel (Fig. 2), the most extensively excavated site located above one of the few perennial streams and its associated rich bottom lands. Ninety-seven percent of the 115 hulled barley grains recovered from Sembel came from multiple hearths in the deeper strata of Room B dating to approximately 600 B.C.E. (Fig. 3). While the gross frequencies of hulled barley at Sembel are distinctive, barley was also the dominant grain in the basal deposits at Weki Duba, where 77% of the grains recovered from a kitchen floor were hulled barley. Similarly, at Ona Gudo the bottom seven excavation units held 95% of the barley documented at this site. These results suggest that barley was the crop of choice during the first settlement on the open plains.

Emmer wheat, also a widespread part of the Near Eastern grain repertoire, was not as popular in the gross frequencies but nevertheless was a key staple at these same three sites. It was found mostly in the earlier depositions dating between 800 and 600 B.C.E., an observation amplified by the virtual absence of emmer wheat in the later deposits, suggesting a fundamental shift away from the role of emmer wheat in the diet through time – a decline that is mirrored in the diminishment of emmer wheat cultivation in the Ethiopian highlands and other regions (D'Andrea / Haile 2002; D'Andrea *et al.* 2008).

In contrast to the open, lower plains are the rocky uplands where smaller patches of fertile soil prevail among many *ambas* (mesas), schist outcrops, and other steep and rocky gradients.

[1] Hulled barley is one of the most common Near Eastern crops in the Horn (Boardman 2000).

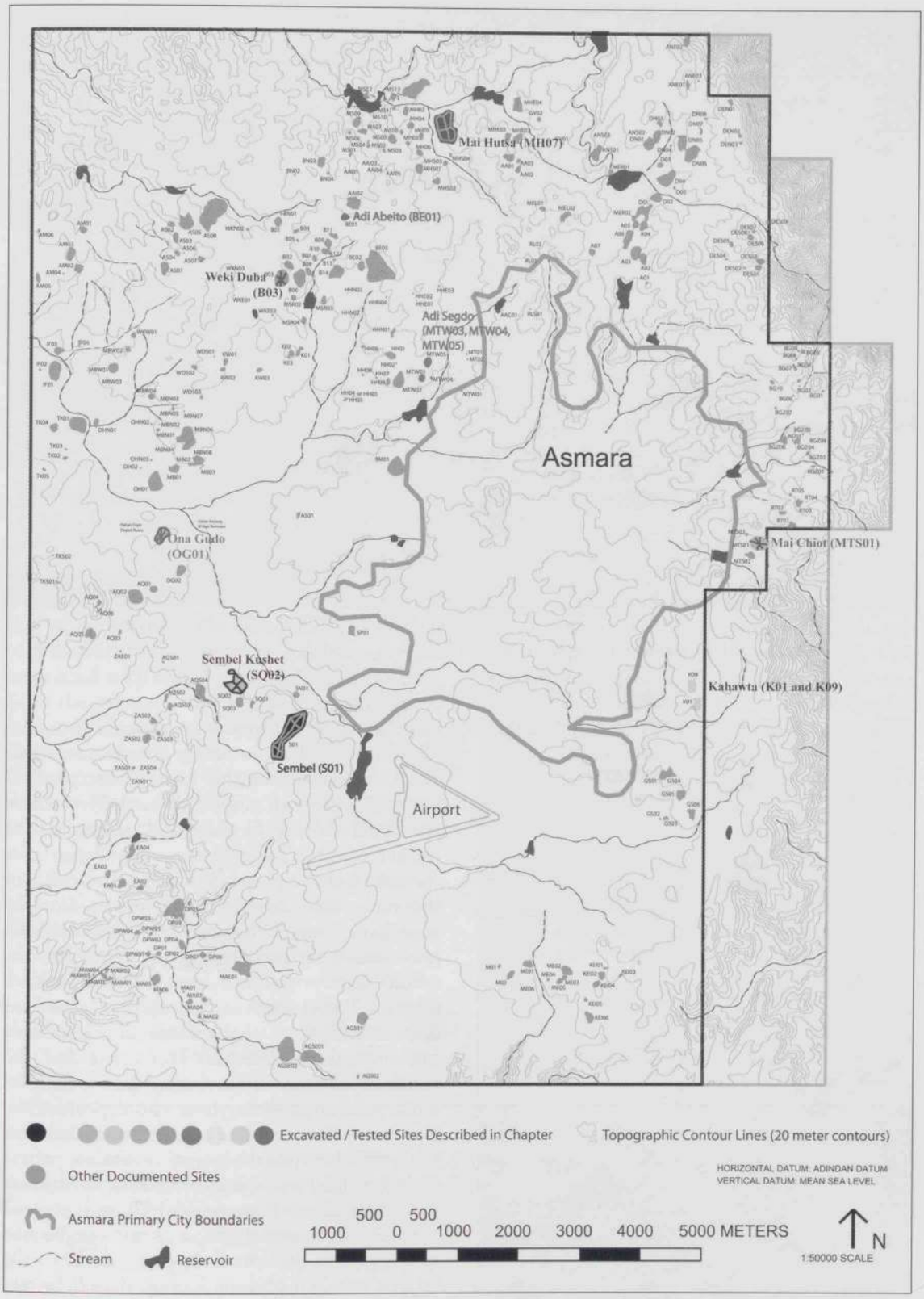

Fig. 1 A map of the research area with excavated sites labeled (Curtis / Schmidt 2008).

Fig. 2 View of Sembel excavations, looking from West to East.

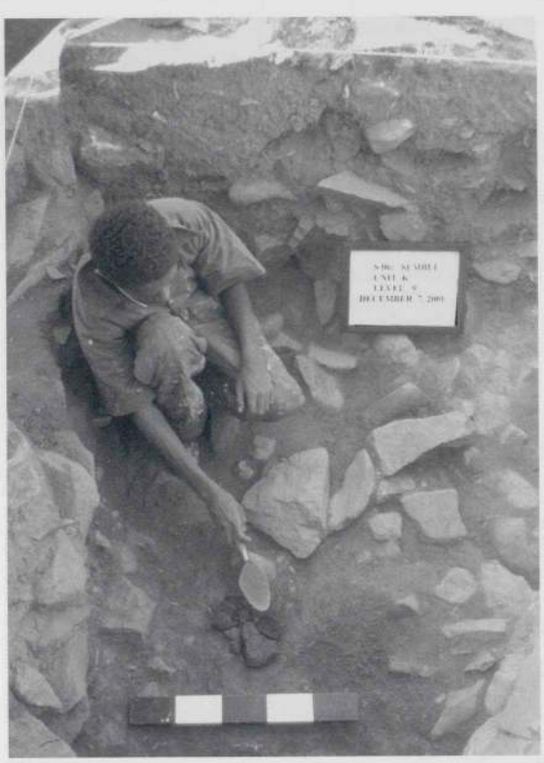

Fig. 3 View of the southern end of Room B at Sembel, where multiple hearths were interlayered in the middle strata.

Mai Hutsa to the north of Asmara and Mai Chiot to the east of Asmara are the two excavated sites located in this topographic/physical zone. Of the five sites discussed here, these two uplands sites yielded no specimens of emmer wheat – fixing that crop exclusively to the open bottom plains. Subsistence practices in this rocky zone close to the eastern escarpment may have been influenced by micro-climatic phenomena, such as the fogs that flow over the eastern escarpment and hang over the eastern plateau. The distinctiveness of the uplands is also amplified by the absence of identifiable hulled barley at the Mai Hutsa site and the presence of only three barley grains at Mai Chiot, scattered throughout the deposits. The dichotomy between the two zones is underlined, then, by the virtual absence of emmer wheat and very low frequencies of barley in the upland rocky zone sites. As Mai Chiot is a more extensively excavated site, it is not sample size that accounts for these clear contrasts.

The staple bread of Ethiopia and Eritrea is *enjera*, a fermented flat bread made from *tef* (*Eragrostis tef*). Reliable dating of *tef* in the northern Horn has eluded archaeologists for some time. The presence of *tef* in "Pre-Aksumite" deposits at the D site, Kidane

Site	Barley[2]	Emmer Wheat	Bread Wheat	Lentil	Linseed	Tef
Sembe. L.	131	19	2	1	29	0
Ona Gudo	20	3	0	10	20	0
Weki Duba	13	4	0	6	33	0
Mai Hutsa	0	0	0	2	3	0
Mai Chiot	2	0	0	9	5	1

Tab. 1 Table showing the counts of grains and rachis in Sembel, Ona Gudo, Weki Duba, Mai Hutsa, and Mai Chiot.; this omits many unidentified specimens (D'Andrea / Schmidt / Curtis 2008).

Mehret, in Aksum have been set aside as unreliable because they were contaminated by later deposits[3], yet *tef* was abundant during the Aksumite period when it was the most common grain (Boardman 1999, 2000). *Tef* has also been documented at Beta Giyorgis, dated to the Aksumite and perhaps to Proto-Aksumite times (Bard *et al.* 1997). In the Greater Asmara excavations, one grain of *tef* was recovered from a sealed deposit in the Mai Chiot site in the rocky uplands. The context from which it was documented – compact, red burned earth associated with faunal remains and linseed suggests the presence of a hearth. Though limited to one grain, the absence of disturbance and the secure dating to the second half of the 1st millennium B.C.E. is important for securely documenting tef in the northern Horn diet at this time and the setting in which it occurred, Asmara's rocky uplands.

The rich paleobotanical record at Aksum (Tab. 1) shows a significant shift in crops between the "Pre-Aksumite" and Aksumite periods, a shift that incorporated additional African domesticates such as finger millet and sorghum as well as Near Eastern crops such as lentil, pea, and grass pea (Bard *et al.* 1997; Boardman 1999: 144). We do not have sufficient settlement evidence for the Aksumite period to inquire into possible parallel shifts in the Greater Asmara area, yet we do have strong evidence for an earlier 1st millennium cultivation of lentils. In fact, we find that lentil is only one of two crops (linseed being the second) that is not restricted to either the open plains or rocky uplands. Rather, it is found in all excavated sites, appearing in later, upper deposits at Sembel, in relatively large numbers in a series of ash deposits and hearths at Ona Gudo dated to 770–350 B.C.E. (95% cal) and 800–400 B.C.E. (95% cal) (Curtis 2005; D'Andrea *et al.* 2008), and at Weki Duba mostly in deeper deposits associated with ash and grindstones dating. In the rocky uplands lentil occurs at Mai Chiot in deposits dated towards the terminal Ancient Ona (500–350 B.C.E.) from both middle and deeper deposits; and, at Mai Hutsa lentil is found in hearth debris dating to 830–420 B.C.E. (95%; cal) (Curtis 2005). This evidence points to lentil being an important pulse and an integral part of the diet throughout the Ancient Ona period.

An important oil crop, linseed (*Linus usitatissimun*) is also found in all Ancient Ona sites in the Greater Asmara area and thus mirrors the evidence found at the D site at Kidane Mehret, Aksum, in terms of general importance in the diet. The presence of linseed at all sites however must be examined within the context of the two different zones in which sites are situated. The Mai Chiot and Mai Hutsa sites of the rocky uplands hold only 8 of the 90 seeds documented or about 9% of the total collection, whereas the Sembel, Ona Gudo, and Weki Duba sites held 91% of the documented specimens – a very large proportion associated with the open, lower plains. Noteworthy at Weki Duba was the association of many linseed specimens with thickly sooted red ware pots – including a red ware ladle perfectly suited for use with porridge or pulse dishes (Fig. 4) – midway through the depositional sequence dated to ca. 500 B.C.E.; many other specimens were located in a dense ashy layer on a basal kitchen floor and in the interstitial spaces in the stone floor, dated to

[2] The barley counts are mostly grains (1 rachis at Sembel), indicating that barley as well as emmer wheat have already been processed and that cooking contexts are indicated (D'Andrea / Haile 2002; D'Andrea 1998).

[3] Boardman 2000: 365; Phillipson 2000: 372; *contra* Marshall / Heldebrand 2002: 212.

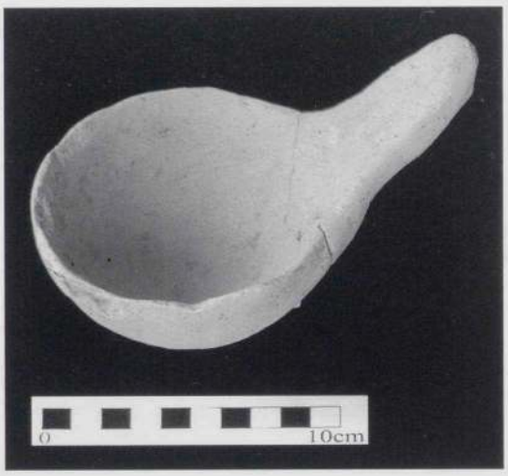

Fig. 4 A ladle recovered from the Weki Duba site in association with lentil seeds.

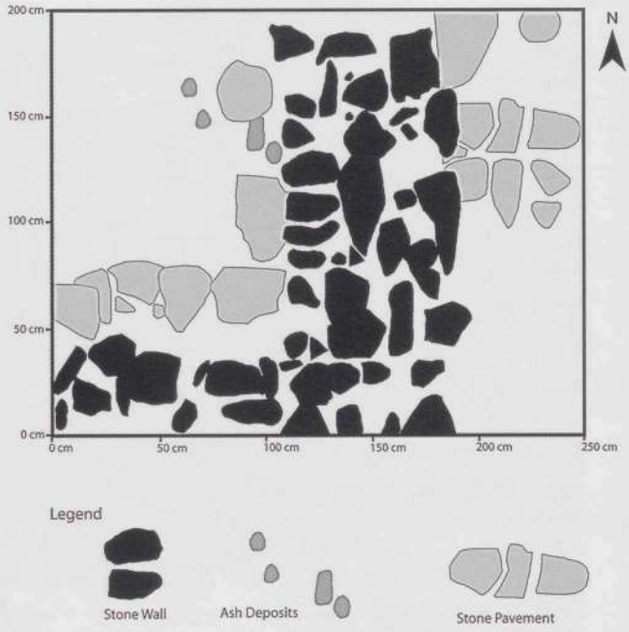

Fig. 5 Stones on a basal kitchen floor (upper right), where many linseed and emmer wheat grains were recovered from ash in the interstitial spaces between the stones.

ca. 700 B.C.E. (Fig. 5). And, important at the Sembel site are the many lower grindstones with a high polish associated with linseed deposits, suggesting that grinding to produce oil was an important component of the subsistence economy and perhaps even for intraregional and interregional trade.

Barley and emmer wheat (and to a much lesser extent bread wheat [*T. durum/aestivum*]) are clearly primary crops found throughout the depositional sequences of the western, open sites of Sembel, Ona Gudo, and Weki Duba. These two crops while present in the rocky uplands sites of Mai Hutsa and Mai Chiot are not a prominent part of the uplands diet. Though lentils are also found throughout the Asmara plateau, they are more important in the diet of some of the open plains sites such as Ona Gudo and Weki Duba, but not Sembel. This suggests a differential pattern – not associated with preservation issues (D'Andrea *et al.* 2008) – that may be related to specialization of different communities and the possibility of intraregional trade to balance out specialized grain production. Linseed, too, is found throughout the plateau, but is more common in those communities bordering the open plains, whereas *tef* has been documented thus far only in a rocky upland setting.

Different subsistence practices, closely linked to soil types, proximity to water, and topography, are significant reminders that variation at a sub-regional level such as the Asmara plateau is central for understanding variation across the entire region. While some growing of linseed, barley, and lentil occurred in the uplands, these communities appear to be more restricted in their productive capacity and crop repertoire, especially in the virtual absence of emmer wheat. In contrast, the lower and open plains show a plethora of evidence for the barley and emmer wheat staples as well as linseed, though not always lentils. This finely nuanced system of production, likely balanced through exchange via kinship networks, alerts us to the likelihood that variations will also prevail in communities in other sub-regions of the northern Horn, something that we will want to keep in mind before we jump to any characterizations based on any sub-region to typify a larger region.

Subsistence and Domestic Animals

The previous observations about intraregional variations also extend to pastoral life through the consumption of animals, since the Ancient Ona Culture was foremost an agro-pastoral economy. The differences that appear in food crops are mimicked in the different husbandry and butchery practices that separate the people of the open plains from those of the rocky uplands. Cattle consumption was greater in

the open areas where oxen would also have been used for threshing and cultivation. In contrast, goat and sheep were far more prominent in the rocky upland areas, suggesting clear divisions between ecological/topographic zones. If we look at the sub-region in terms of total frequencies of domestic animals represented in our collections from six excavated sites, then there appear to be more small ungulates (mostly *Capra/Ovis*) than large ungulates (mostly *Bos*). But this generalization is potentially misleading because the small stone towns of Mai Chiot and Mai Hutsa in the rocky uplands have large numbers of small ungulates vis-à-vis large ungulates (Fig. 6), thus skewing the picture. Such a scenario does not apply – using MNI – to the communities located near the intensively cultivated areas in the open plains such as Sembel Kushet and Ona Gudo, where *Bos*/ large ungulates dominate most of the faunal profiles (Fig. 7). Sembel is less definitive, with equal numbers of small and large ungulates, keeping in mind that the large ungulates have much higher nutritional value. The contrasts between uplands and open plains communities take on greater vividness when we compare one site from each zone – Mai Chiot from the uplands and Ona Gudo from the plains – as proxies for the sub-region (Fig. 8).

Throughout the Greater Asmara area, there was a clear preference for the consumption of adult and sub-adult animals over those in the sub-adult and juvenile to young age categories. Keeping in mind the need to harvest oxen and milk cows only after the completion of their use-lives, this preference for mature animals may fit such needs as well as a cultural preference for animals of

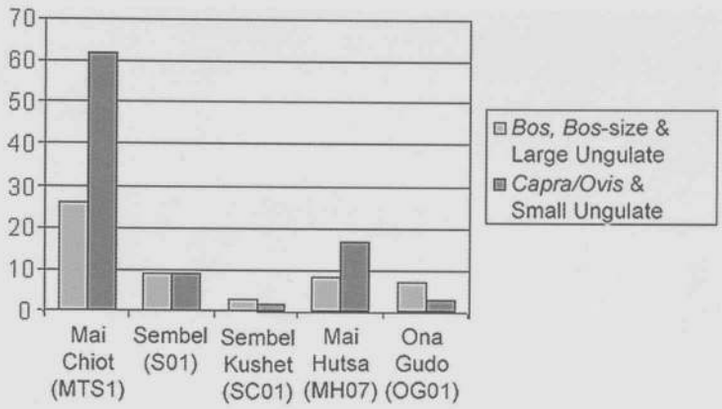

Fig. 6 A histogram of the distribution of *Bos*/large ungulate-sized animals and *Capra/Ovis*/small ungulate-sized animals, by MNI, among Ancient Ona sites around Asmara (Shashoni *et al.* 2008).

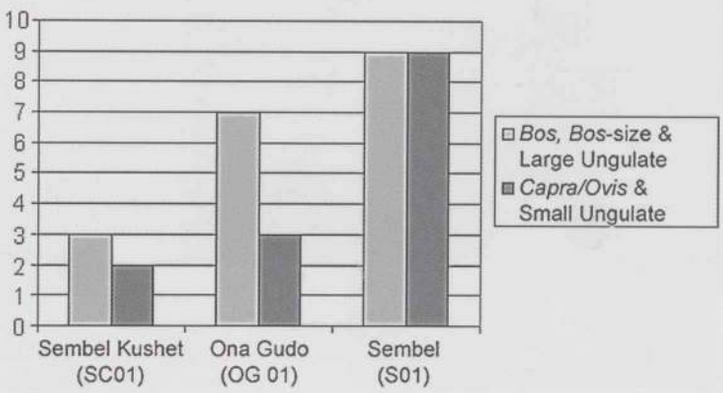

Fig. 7a

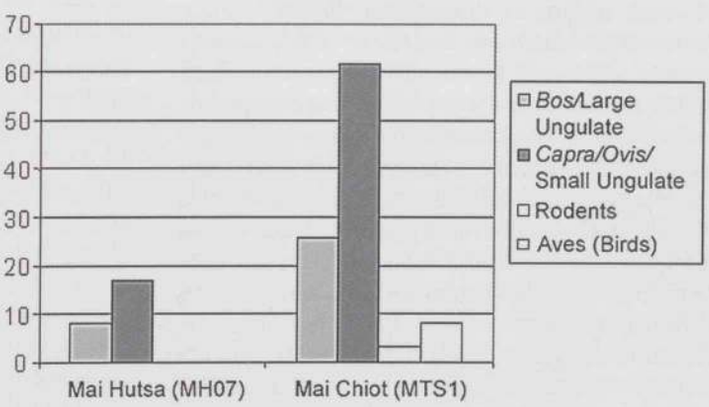

Fig. 7b

Fig. 7a and *Fig. 7b* A histogram showing the contrasts between the plains (Fig. 7a) and rocky uplands (Fig. 7b) sites to show dominance of cattle in the open plains and sheep/goats/small ungulate-sized animals in the uplands (Shashoni *et al.* 2008).

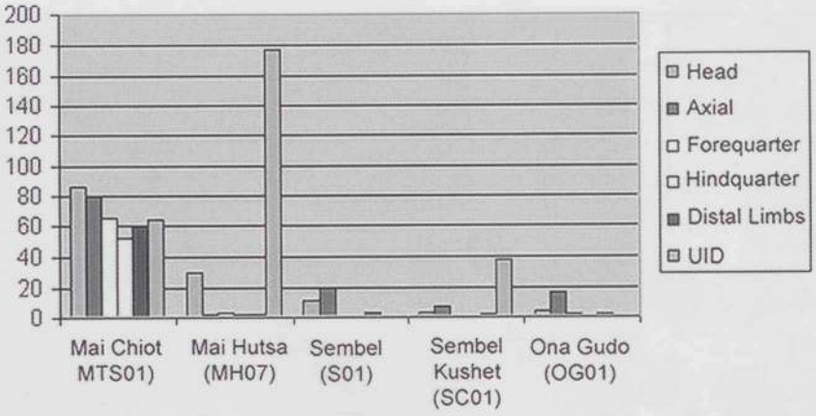

Fig. 8 A histogram showing the frequency of body parts (NISP) of sheep/goats/small ungulate-sized domestic animals in Ancient Ona sites (Shashoni *et al.* 2008).

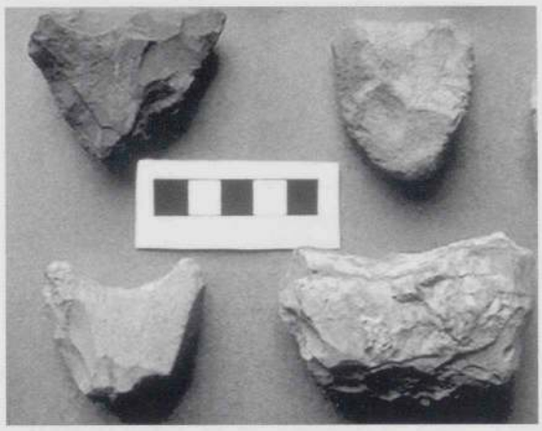

Fig. 9 Chipped stone bulls' heads from Tringali's collection housed in the National Museum of Eritrea.

larger mass during feasting displays. The same principles appear to hold for the consumption of small ungulates throughout the sub-region. A more detailed discussion of the distribution of different body parts (Shoshani *et al.* 2008) shows that a contrast between uplands and plains sites appears only when body part frequencies are examined for sheep, goats, and small ungulate-sized specimens (Fig. 8). In this case, Mai Chiot provides good evidence for an integrated distribution of meat cuts, as does Mai Hutsa – the other uplands site. In the three communities in the open plains there is a greater frequency of axial cuts. This makes sense if we envision the sub-region as an integrated economy, with the higher frequency of axial cuts in the lowlands representing an intraregional exchange coming from the uplands, where the better cuts remain for local consumption along with other axial cuts. This integrated perspective on intraregional exchange may also help us to understand some of the crop specializations that we see in the paleobotanical record – with surplus grains such as processed emmer wheat, barley, and linseed or linseed oil moving from the open plains to the uplands in exchange for easily transportable cuts of sheep and goats.

Ritual – The Search for Meaning

The second topic that invites examination for cultural variation within a sub-region is the production and distribution of what have been described as ritual bulls' heads[4]. Mostly stone objects – with some ground potsherd examples – made by both chipping (Fig. 9) and grinding (Fig. 10), these artifacts are found in a variety of Ancient Ona sites concentrated along the northern and western zones of the Asmara plateau. Their general classification – using the triangular frontal view of *Bos* – does not capture the variation found in this category of artifact. Many objects are rounded, elongated, stubby, and depart from a triangular norm. Some are diminutive – only several centimeters in diameter, while others resemble 12–15 cm wide roughly finished blanks. There is significant variety in the care and quality of craftsmanship as well as the types of materials used and the scale of the finished product (Schmidt / Naty 2008). Yet within this large range of variation there is little doubt about which objects fit within this category.

Tringali seemed genuinely perplexed about what to call these objects, also referring to them as "crescents", a term that elicits comparison to the Sabaean crescent and circle. Fattovich

[4] Tringali 1965, 1967, 1978; Schmidt / Curtis 2001; Schmidt / Naty 2008.

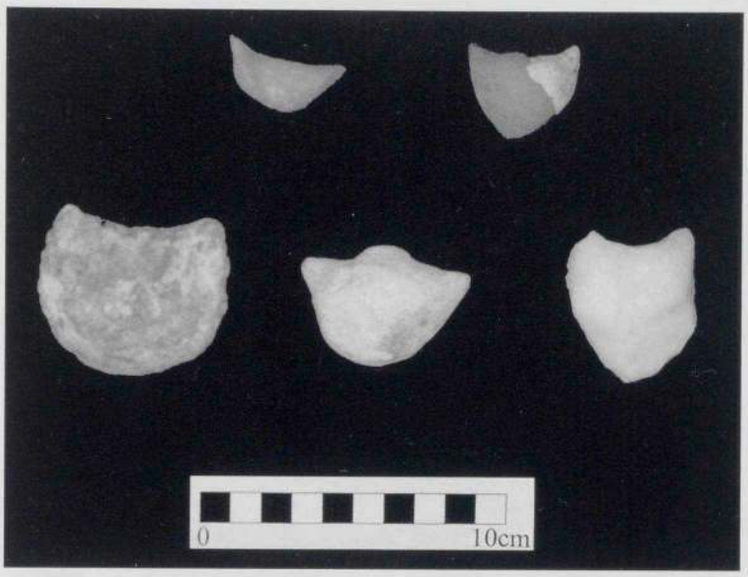

Fig. 10 Ground stone bulls' heads made from metavolcanics, volcanics, and pottery (upper left), excavated at the Sembel site.

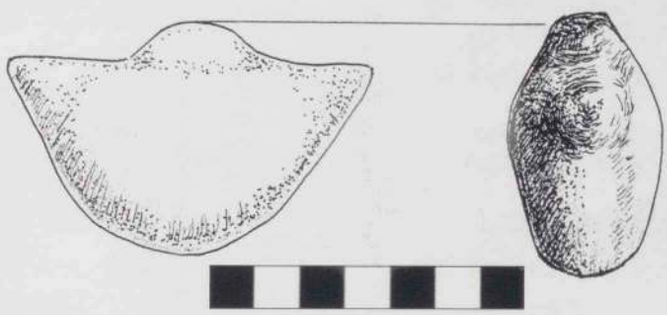

Fig. 11 A drawing of the ground stone bull's head in the bottom center of Fig. 10, a representation of *Bos indicus* – the earliest know representation of *Bos indicus* in Africa.

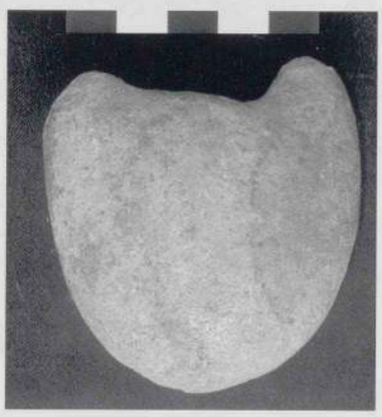

Fig. 12 A ground stone bull's head from the surface of the Weki Duba site.

(1997a, 1997b, 2000) in earlier treatments favors the idea that images of bulls in the Horn are linked to the Arabian Peninsula, but he does not specifically suggest that these particular objects of the Ancient Ona are the result of such contact and cultural influence. Certainly, any argument for a linkage to Saba would be misleading in this setting, where the complete absence of any Near Eastern artifacts associated with bulls' heads in Ancient Ona communities and nearby multipurpose sites suggest strongly that these objects belong only to local expressive culture.

We have asked elsewhere (Schmidt / Naty 2008) if these objects are symbolic crescents or symbolic bovids, or perhaps something altogether different. We may set aside the first speculation because it is obviated by the dominance of forms that are not crescent-shaped. An appraisal of the forms represented in Fig. 9 and Fig. 10 shows that most appear to be highly stylized representation of bovids, but that they do not capture the finer features of bovids. As we search for intentionality in these collections, we find that the exceptions to the norm provide the deepest insights. The excavation of an artifact (Fig. 11) at Sembel provides some clues: a ground stone object with a hump between opposed, tapered points may be recognized as the distinctively humped Zebu cattle (*Bos indicus*), lending confidence that the intended representation is indeed a bovid. The great variety of raw materials and styles, with some of the forms roughly finished and not adhering to a normative standard, contrasts sharply with other specimens that show perfection and quality craftsmanship (Fig. 12). The wide variation in style and the

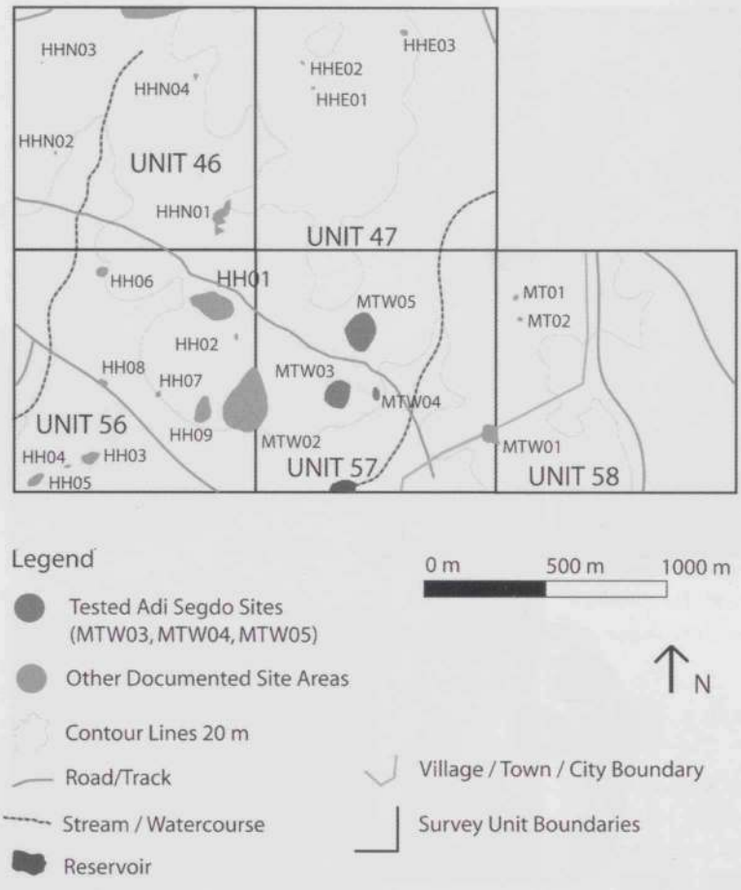

Fig. 13 A map of several multipurpose Ancient Ona sites used to process quartz for gold, and containing bulls' heads.

quality of craftsmanship may indicate a level of craft skill that was not highly developed, or a varied familiarity with production techniques. The absence of standardization may point to variation associated with different social groups, but the possibility that these objects were produced by relatively unskilled young people also emerges as a significant possibility.

We first thought, following Tringali's observations, that these objects were limited to *tells* or mounds covered with architectural stone that mark the Ancient Ona settlements of various sizes. Our comprehensive and systematic survey of 90 km² on the Asmara plateau (Curtis / Schmidt 2008) shows however that they are quite common on some of the multipurpose but low visibility sites of the Ancient Ona period. One site, located in Survey Unit 118 and designated as K09, had 12 bulls' heads on its surface, whereas the nearby K01 site had none. Another complex of sites with bulls' heads but without evidence of permanent settlement is sites with large quantities of quartz float processed for gold, located in Survey unit 57 (MTW03 & MTW05) (Fig. 13). The presence of bulls' heads on these large multipurpose sites (no architectural evidence but plentiful grindstones, lithics, and pottery) and the clear differences in the proportion of bull's heads among large multipurpose sites suggest that activities associated with these objects happened in specific spaces outside the core stone-built communities and for very specialized purposes, possibly for sequestered ritual instruction of neophytes and their supervision (e. g., initiation schools).

Tringali located bulls' heads about 40 km to the south at several sites near Dekemhare, including Gura and Cheren (Tringali 1978: 42, 62, 98, fig. 32), but they are mostly confined to the Asmara plateau and are not known from any other sub-region of the northern Horn. While there have been many speculative ideas about what these objects signify, they are clearly significant for understanding ritual relationships that may have once prevailed on the ancient Ona landscape. Using strong inference that draws on Alex Naty's ethnographic details on the Kunama (Schmidt / Naty 2008),

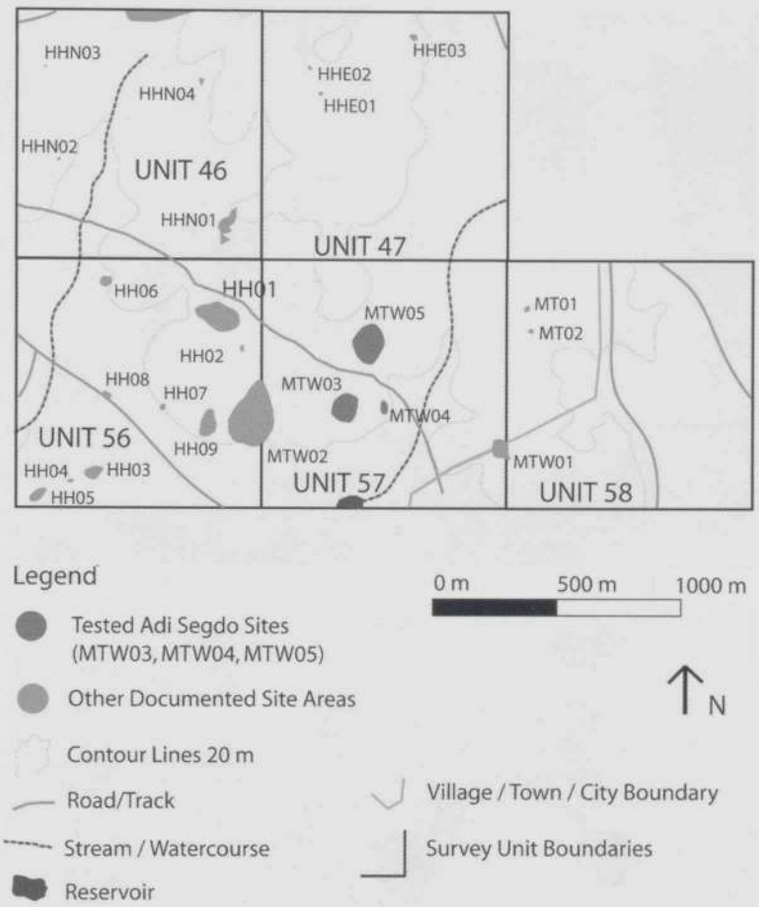

Fig. 14 Map of Sembel Kushet. The key characteristic is the ashy zone in the western part of the site, where large numbers of bulls' heads have been documented.

I argue that these objects once functioned as ritual promissory notes, as devices symbolically promising cattle as the first of several steps in bride-price payment and as an integral part of a rite of passage. Naty informs us that the Kunama – who have explicit oral traditions about their identity with the highlands – practice a form of initiation where young men make clay figurines of cattle, later giving them to the family of their "betrothed" as symbols of the cattle bride prince they will later pay upon consummation of the marriage some years later (Schmidt / Naty 2008). Naty also points out in his testimony that these Kunama ritual events are rites of passage because they occur at a particular time (age 6–8) in a young man's life cycle, but they are also rites of intensification because they are conducted close to the harvest season when fecundity of the land and the reproduction of society are foremost concerns. Given that many different families in different communities would have been engaged in such rituals, large numbers of people would have gathered together while using such symbolic capital.

The bulls' heads on the Asmara plateau are concentrated in the core zone of the open plains, where cultivation of the primary staple food crops once prospered and where larger permanent towns were located. The most significant concentration of bulls' heads has been documented at Sembel Kushet (Fig. 1 and Fig. 14), where some 850 of the objects were recorded in the 1970s by Tringali (1978: 62) and where our student teams also observed several dozen on the surface (also see Habtemichael 2000). A second smaller concentration occurred just 1 km to the southeast at the Sembel site.

What captures our attention on the Asmara plateau is the variety and scale of the bulls' heads at Sembel Kushet and their dense concentration in a large and deep ashy area. This zone is not the result of domestic ash dumping – a process that usually entails distribution to agricultural fields. Rather, the large number of these ritual artifacts and the distinct boundaries of the ashy zone ask for a more fulsome explanation, one that also accounts for its centrality on the Asmara plateau. In the rich historical and ethnographic corpus of the

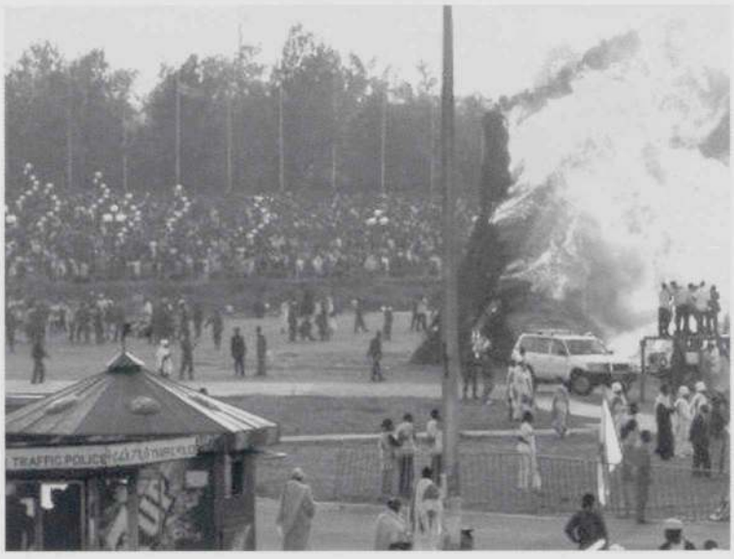

Fig. 15 A Meskell celebration in Asmara, 2001.

Fig. 16 Quartz bulls' heads excavated at Mai Hutsa (Curtis 2005; Schmidt / Naty 2008).

Fig. 17 A large chipped quartz bull's head from Mai Hutsa (Curtis 2005; Teka / Okubatsion 2008).

Horn, one particular rite emerges as a compelling inference: The annual Meskel celebration (Feast of the exaltation of the holy cross) that now occurs September 27, but in pre-Christian times it may have occurred during another time of the year, possibly March (Ullendorff 1968). Now a celebration featuring officials of the Orthodox church, this "sacred" rite focuses on a huge bon fire (*demera*), with the future health and prosperity of the immediate region predicted by the direction in which the last burning logs fall (or in some areas the direction in which the smoke blows) (Fig. 15). In many parts of the Horn it is linked to feasting on sacrificial oxen and celebrates the fertility of women and crops.

This pre-Christian fertility rite (Ullendorff 1968), long ago wrapped into church liturgy as a means of capturing its potency, leaves a large deposit of ash and charcoal[5]. Its performance in a central location, in exactly the same place as previous years, strongly suggests that the ashy western side of the Sembel Kushet site may have been used for a similar purpose. The great profusion of ritual items – shaped like oxen – at the same locale further suggests rites of passage and rituals of intensification in which fertility and human reproduction were featured – in this instance with exchange of symbolic bride price objects during a large public ceremony in which oxen are the most prominent feasting food. Though ground stone bulls' heads are by far the most common type found at Sembel Kushet, chipped quartz specimens also occur, leading us to ask if they were exchanged and deposited there by members of other communities where they were manufactured.

If this hypothesis about the centrality of Sembel Kushet is to be sustained, then we might also expect to find the production of such ritual items in other contemporary communities, in readiness for the general exchange at Sembel Kushet and/or local exchange. The closest excavated stone town is the Ona Gudo community (Fig. 1). Only 2 km to the northwest of Sembel Kushet and across the open plains (where we might expect to find bulls' heads in an excavated context), there were 17 bulls' heads documented in one test excavation, eight of them chipped from quartz (Curtis 2005). The other site with excavated quartz bulls' heads is Mai Hutsa, 9.5 km from Sembel Kushet in the rocky uplands. Mai Hutsa is coeval with Sembel Kushet and has a suite of nine excavated bulls' heads, six of which are chipped from quartz (Curtis 2005; Schmidt / Naty 2008) (Fig. 16).

The large cluster of quartz bulls' heads at Mai Hutsa comes from several contiguous excavation units, indicating a possible specific manufacturing area, using large, roughed-out blanks for these quarts artifacts, some of which are quite robust (Fig. 17). To gain a finer grained perspective, we examined the debitage from these strata and found a significantly higher percentage of angular waste 2 cm or greater (Schmidt / Naty 2008; Teka / Okubatsion 2008). The large size of the finished objects and the absence of fine edge work indicate that there are markers in the lithic record for the production of such symbolic capital, certainly a new direction for lithic studies in the Horn. We must consider that communities such as Mai Hutsa and Ona Gudo produced specialized bulls' heads to exchange at ceremonial centers like Sembel Kushet.

To obtain a better idea of the range of quartz bulls' head and possible distribution networks into areas without such excavated traditions, we examined the survey evidence from the phase I survey of the Asmara plateau[6]. We find that these quartz ritual products reached 4 km south to Daro Pawlos (survey unit 154, five specimens) (survey units are itemized in Fig. 18), where metasedimentary and metavolcanic materials prevail – not quartz. One survey unit (142) 3 km to the south of Sembel Kushet yielded four chipped quartz bulls' heads, while 2–3 km to the northwest, there were three and two chipped quartz bulls' heads in units 88 and 98. If we go further afield to survey units 31 (1 specimen), 33 (1 specimen), 35 (1 specimen), 17 (2 specimens), and 28 (1 specimen) – we see that the densities change to a gradient that is proportional to the 7–10 km distance from Sembel Kushet. It is possible these specimens may have been derived from a nearby community such as Mai Hutsa, but if so, then one would expect higher densities given the proximity of Mai Hutsa to these survey units. Rather, it appears that exchange appears to have been mediated by the central ritual and redistributive center

[5] These days the ash and what remains of any charcoal (after people sift for charcoal to mark their foreheads with a cross) are removed from the public squares and other venues in which the ceremony is staged.

[6] Curtis 2005; Curtis / Schmidt 2008; Schmidt / Naty 2008.

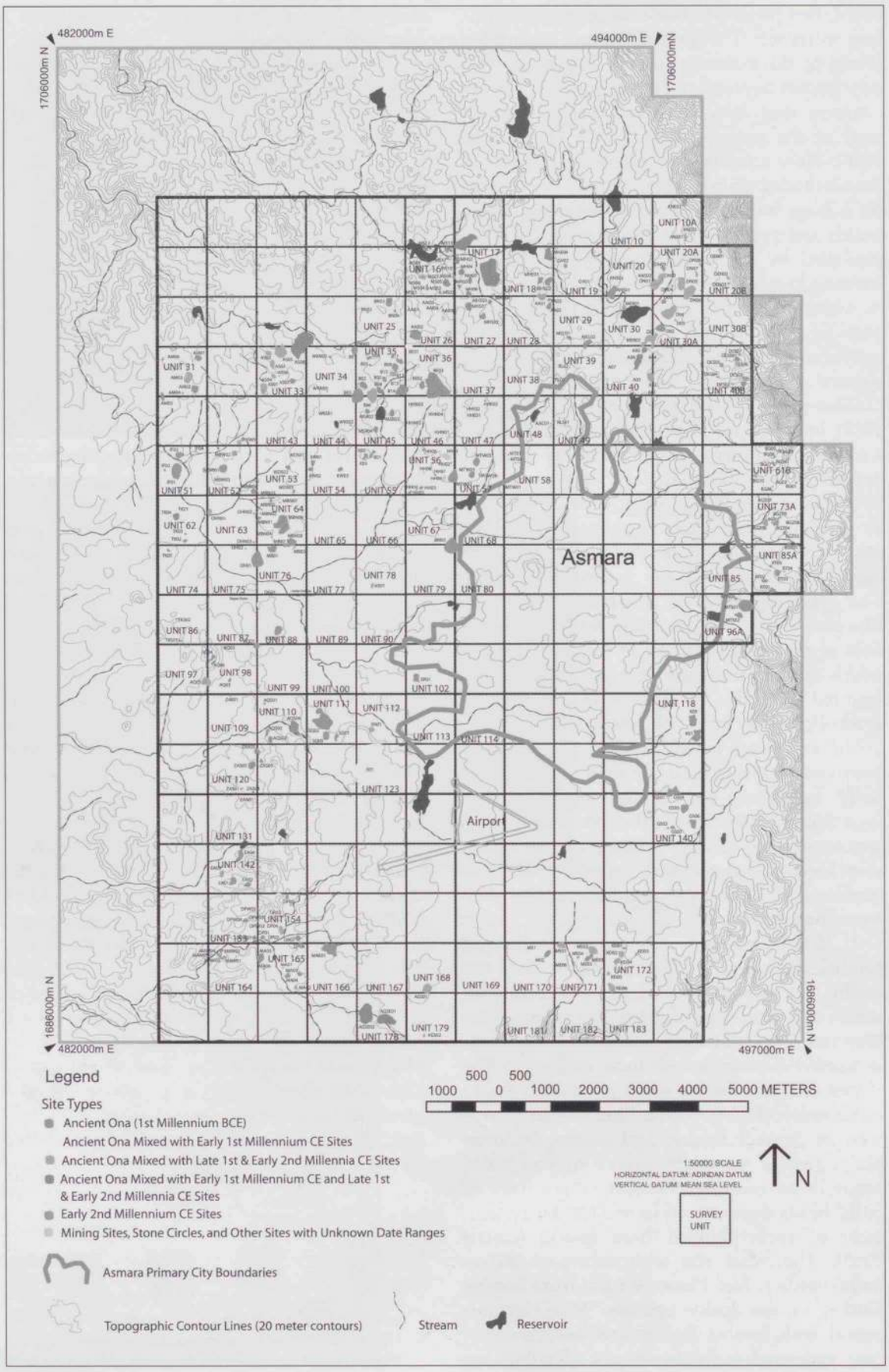

Fig. 18 Map of the Greater Asmara Area research university with survey unit numbers marked for reference (Curtis / Schmidt 2008).

of Sembel Kushet, where feasting and large gatherings accompanied rites of passage and intensification centered around a Meskel-like *demera* – leading to the spread of these objects around the northern and western plateau.

Surface and excavated examples show clearly that bulls' heads are virtually absent from the eastern rocky uplands zone. Mai Chiot lacks bulls' heads on its surface. No specimens were excavated during the second largest excavation around Asmara. Mai Chiot is a short term occupation dating to the terminal Ancient Ona and may represent an occupation that post-dates the ritual complex, or, it may simply have been outside the social orbit of such ritual activity. The uniqueness of Mai Chiot with its distinctive crop repertoire, its different domestic animal diet as well as its distinction as the only community to rely partly on wild game in its diet – all of these attributes when compared to the communities in the open plains--mirror its separation from the bulls' heads ritual complex. This suggests further that the bulls' head cult may have been socially and geographically limited, an observation that affirms other significant variations within the sub-region.

A Point of Continuity: Gold and the Exploitative Economy

When discussing quotidian economic life such as subsistence practices, one does not want to submit to the temptation to submerge other variations in economic life – perhaps less definitive in some areas – for activities that may have contributed to the relatively large demographic size and prosperity of communities on the Asmara plateau. I now turn to the mining and the processing of gold around Asmara, for which there is a variety of evidence. The exploitation of gold by Ancient Ona communities, and later communities, is attested to by a variety of evidence, including the presence of material culture such as Ancient Ona pottery and *tina* cups (Fig. 19) observed in mines that were reopened during Italian colonialism (Tringali personal communication, May 19, 2002). There are also reports by early miners, among them one F. H. Hatch, an English geologist, who in 1902 reported that deep mines with pottery and stone hammers were observed at both Schmugle and Medrizien before they were reopened – mines that became the largest producers during the Italian era

Fig. 19 A *tina* cup from the Sembel site, a common find in all Ancient Ona sites.

(Blackburn 2003: 9). Other reports of ancient workings are found in both Italian and British records. An Italian geologist on a mission to investigate the Hara Hot and other mines in the 1930s reported that the Hara Hot area – now to the northwest of the Teacher Training College – figured prominently in local stories about Portuguese mining in the area (Usoni 1952: 138) (see survey unit 56, Fig. 18). This oral tradition possibly refers to Portuguese mineral exploration undertaken by Portuguese living at Debarwa (about 35 km southeast of Asmara) during the 16th and 17th centuries. It is repeated, independently, by C. G. Barnard, a British military administrator of the Italian mines during World War II. He reported that the area around Hara Hot was exploited by Portuguese missionaries and came to be known as the "Portuguese caves" (Barnard 1941). We believe, from the physical evidence available today, that the primary mine before the Italian involvement at Hara Hot was a conical hill, now a mined-out crater with internal shafts, appearing on maps as the Gradino or No. 3 mine (Fig. 20).

Among the more intriguing reports is Usoni's mention of the Graziani mine several hundred meters from the central processing area at Hara Hot. He observed that about 150 m to the west (sic), or southwest, there were "Abyssinian tombs of Mekeleans" or Aksumite tombs (Usoni 1952: 139). This tomb was evidently used as a gate or access to an underground galley in the later Italian mine. There is no basis for assigning an Aksumite date to the tomb – it could as well be Ancient Ona – but we now know that there was an Aksumite presence in the sub-region that pertained di-

Fig. 20 A large conical hill North of the Weki Duba–Asmara Road, and just North of the Hara Hot gold processing plant. It now appears as a crater, with shafts following veins at the bottom. This is the Gradino or No. 3 mine designated by Usoni (1952).

rectly to gold mining, both at the BE01 site (excavated in 2003; Schmidt – Curtis / Teka 2008) just two km to the northeast as well as further afield at Emba Dehro, where an early Aksumite or Proto-Aksumite community was situated on an elevated overlook just east of the Medizien mine (Schmidt / Haile / Shoshani 2008). Using our intensive survey results and Usoni's detailed drawing of the Pozzo Graziani, once marked by a steel elevator tower, we have isolated what we believe to be the shaft that once housed the tomb and that subsequently led to three of four galleries in the mine (Fig. 21).

The dominant presence of Ancient Ona communities dating to the 800–400 B.C.E. era suggest that it was probable that the burial remains date to that era rather than the later Aksumite period. In any event, the evidence from the BE01 site in Adi Abieto and the remains at Emba Derho indicate that regardless of the specific age of the Hara Hot tomb, the area had been exploited for gold by both Ancient Ona and Aksumite period miners. Tringali's original research around Asmara led to his discovery and documentation of fragments of what he called "crucibles" in mines of the Ancient Ona period. While we have not relocated his "crucibles" in the collections now in the National Museum, he affirms that *tina* we have documented (Fig. 19) are indeed what he labeled as "crucibles" (Tringali personal communication, May 19, 2002). We have not observed any residues – sooting outside or other residues inside – indicating these artifacts were indeed used as crucibles[7]. Tringali's thorough familiarity with the material culture of the Ancient Ona however inspires confidence that his observations of these objects in abandoned mines underwrite gold exploitation by Ancient Ona peoples.

Tringali (1965: 152) was the first to notice the close proximity of Ancient Ona communities to ancient gold mines. Our investigations confirm his prescient intuition and further suggest that the largest towns of the Ancient Ona are found contiguous to the gold fields of the central, northern, and northeastern part of the basin. Most are located in the open plains near schist/quartz outcrops with documented veins. Ancient communities such as Ona Hashel and Ona Gudo, for example, were located next to productive ancient mines (site MB03). The presence of an ancient tomb in a deep burial shaft, along with *tina* vessels in some reopened mines strongly suggest that the prosperity of the communities in the open plains and fringing the open plains was linked not only to their agricultural productivity but also their proximity to and exploitation of very ancient gold workings. This characteristic of the Ancient Ona allows us to see more clearly broader regional affinities and differences that come into sharper focus when we privilege local developments across a region.

[7] Trace element analysis on these objects is needed in the future, once archaeology in Eritrea opens to free and qualified inquiry.

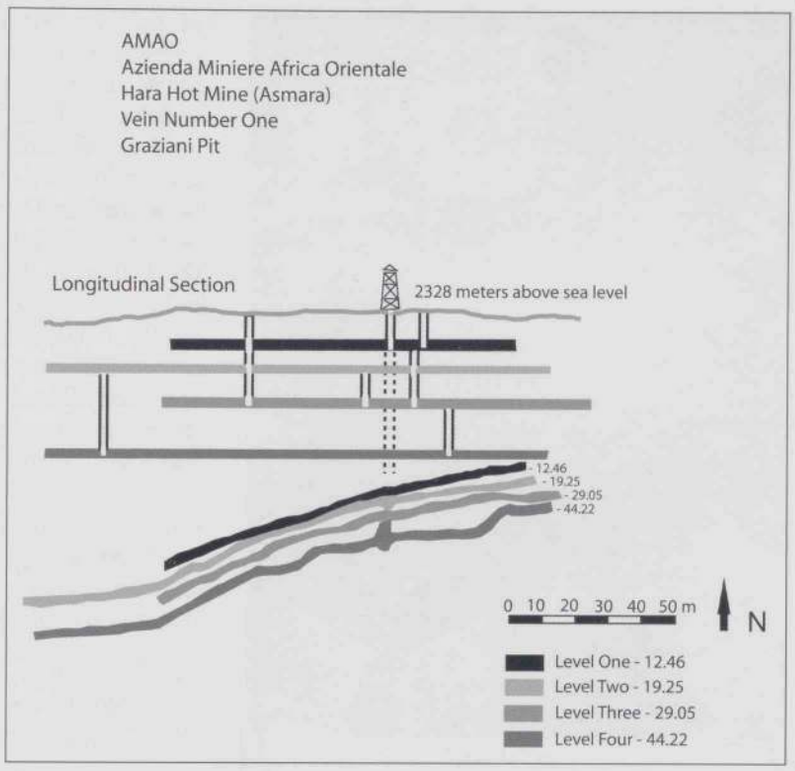

Fig. 21 A sketch of the Graziani mine section at Hara Hot (after Usoni 1952); the tomb shaft is likely the surface shaft to the left of the elevator tower (Schmidt / Habtemichael / Curtis 2008).

Point of Continuity: Ancient Ona Architecture and the Present

My final topic pertains to cultural variation within a region, touching on threads of continuity through time in the architecture of the Ancient Ona. Our excavations at the Sembel and Mai Chiot sites provide the most complete architectural evidence for the Ancient Ona. In many respects the long rectangular rooms of the Sembel site resemble the long rooms documented at the D site, Kidane Mehret at Aksum (Phillipson 2000), though in the latter case there is little positive evidence for doors. External doors at Sembel are not present in the multiple rooms that are either wholly or partially documented – quite Middle Eastern in their affinity. Elongated rooms do not characterize the Mai Chiot site, where rooms are more organic in shape and where the one rectangular room (Room A) is very narrow and not a habitable space[8]. Consistent with the Sembel evidence however is the apparent absence of outer doors to most rooms, again suggesting as in the case of Sembel the entry to the living space was through an aperture in the roof and then a ladder to the floor. Long rectangular rooms also seem to be the norm in northeastern Tigray, where Catherine D'Andrea is currently carrying out excavations on a "Pre-Aksumite" community, Mezber, in Gulo-Makeda (D'Andrea 2008). The presence of doors in many rooms exposed on the surface show that there is a clear sub-regional variation that marks the Ancient Ona as different from the conventions that have been observed in northeastern Tigray and Aksum. This variation within the region may point to identities tied to local architectural styles.

The extensive documentation of traditional *Hidmo* houses in the same region of Tigray by Dianne Lyons shows other variations, with the construction techniques and the morphology of many structures that differ from the *Hidmo* house observed on the Hamasien region (of which the Asmara plateau is a part) (Lyons, personal communication, June 28, 2006). While there are substantive differences between recent historical and contemporary traditional houses

[8] Several possible interpretations have been proffered for this space: a special work area (lithic debris); a storage area (*tina* cups); and, a place of refuge (miscellaneous materials from a brazier to faunal remains) (Schmidt, Curtis, and Teka 2008).

of the two sub-regions, more striking is the continuity in a major architectural feature found inside recent Hamasien *Hidmo* houses and Room B at the Mai Chiot site.

Excavation of Room B delimited a clear sitting bench (Fig. 22 and Fig. 23), known locally as a *medeb*. There are two types of benches in the large, public and mostly male room of the Hamasien *Hidmo* – *medeb* for sitting and *ne'edi* for sleeping (Fig. 24). The bench found on the north side of Room B is clearly a sitting bench, given its limited depth of about 45–50 cm (Fig. 23). This is a major point of distinction to emerge in the architecture of the Ancient Ona culture – a clear link to the

Fig. 22 Room B of the Mai Chiot Site (with Room A, behind). The bench or *medeb* in the foreground strongly resembles similar architectural features found in a traditional *Hidmo* house (see Fig. 25).

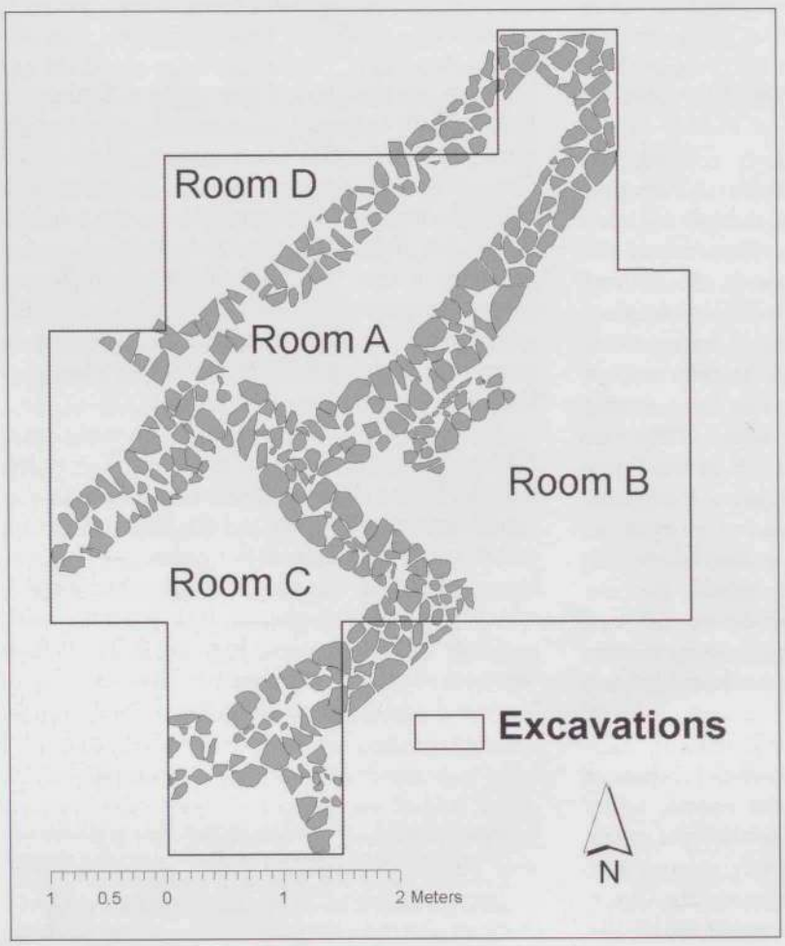

Fig. 23 A plan view of the Mai Chiot excavations, showing house structures including the *medeb* bench in Room B and the long, narrow space designated as Room A.

present in the type of permanent furniture integrated into the architectural template of Room B at Mai Chiot. This also sets off the Mai Chiot site – along with its many other differences from the open plains sites to the western side of the plateau – as different from Sembel, say, where there are no indications in three excavated rooms for a bench-like feature.

Concluding Thoughts

Variation is often overlooked in our search for broadly applicable generalizations in archaeology. Though the Ancient Ona communities of the Asmara plateau can be characterized as agropastoralists who grew mostly barley and emmer wheat and who favored goats and sheep over cattle in their diet, such generalizations erase the particulars of local histories so critical for understanding why significant differences, say, in diet arose over a 10–15 km distance in the Eritrean highlands. That the crops grown in the western and open plains of the Asmara plateau appear as so different in scale and dietary profile from the communities located in the rocky uplands is of significant consequence. Soils, topography, and climate vary over very small distances in the highlands of Eritrea as well as northern Ethiopia. These finely nuanced differences come to the fore with significant clarity on the Asmara plateau, demanding that we better understand the exchange networks that compensated for these natural imbalances.

The absence of emmer wheat at Mai Chiot and the minimal presence of barley must be measured against the plethora of these grains as well as the production of oil from linseed at Sembel, Ona Gudo, and Weki Duba. The agricultural production of the open lands, with their much higher productivity, was matched by the ideal conditions for raising and herding goats and sheep on the rocky uplands – not a suitable enterprise near open fields of grain. The cattle pastoralism practiced by the lower, grain-growing communities would have required a diverse herding system with herds required to go outside the sub-region during the growing season, only to pasture on the stubble of the fields after harvest was completed. Management of cattle herds favored the harvesting of older animals once their productive lives as oxen or milk cows had been exhausted, whereas the communities of the rocky uplands practiced a parallel approach with their goat and sheep herds – favoring older animals that had greater body mass, a cultural preference seen even today. The key observation to emerge from these variations is the presence of portable, axial body parts of sheep and goats in the open plains sites – likely the result of distribution of meat through kinship networks for grain products from the western communities.

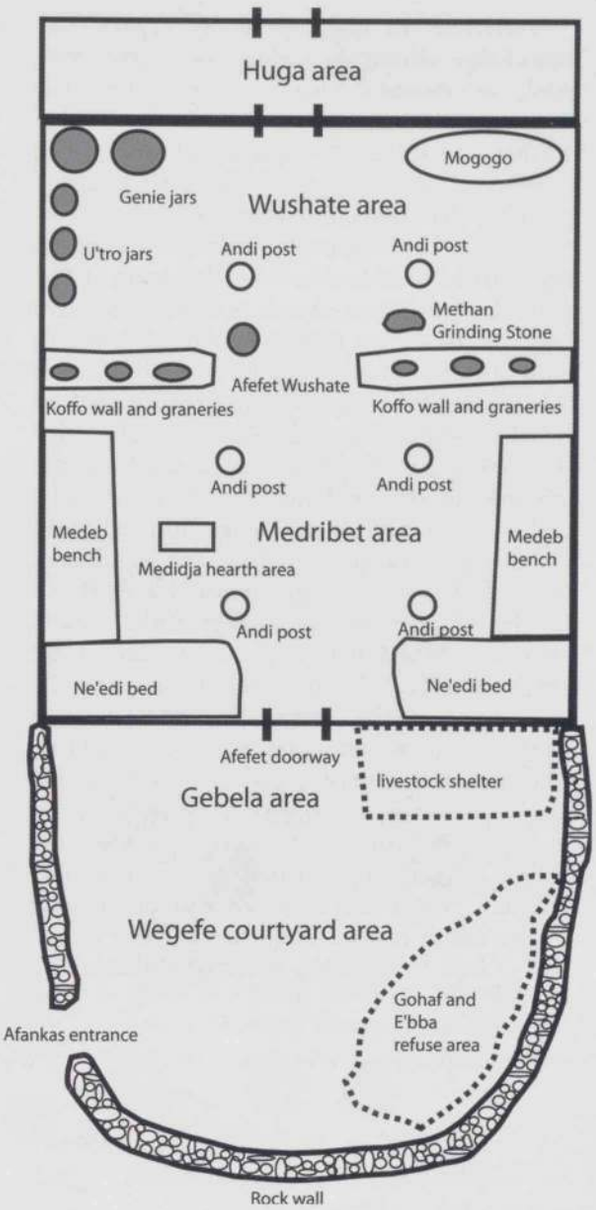

Fig. 24 A schematic drawing of a traditional *Hidmo* house This schematic shows the relative placement of *medeb* benches and *ne'edi* sleeping platforms in the main public room (Schmidt / Curtis / Teka 2008).

Variations in ritual practices expand our knowledge about the values associated with cattle in Ancient Ona culture, values that emerge when we examine how the Sembel Kushet site differs so significantly from any other Ancient Ona site. A major place of ritual practice, the ashy zone of the western side of Sembel Kushet – replete with huge numbers of ritual artifacts known as bulls' heads and filled with deep deposits of ash – appears to have been the locale for major ceremonial activities with affinities to contemporary Meskel rituals. As a center for important rites of passage and rituals of intensification, Sembel Kushet also functioned as the social glue in a redistributive system of ritual items used in symbolic exchange for brides, a process intimately tied to principles of reproduction and fertility, a unity of human reproduction and the land.

The production of quartz bulls' heads provides an unusual window into how local production of symbolic capital may now be recognized in the archaeological record, an important new direction for lithic studies. The physical distribution of quartz bulls' heads in particular opens understanding of exchange networks that were cemented together by centralized ritual events at Sembel Kushet. This ritual network did not extend to the entire plateau but was confined to social groups that shared other common beliefs and practices, among them the exploitation of gold. The communities living in prosperous small stone towns were situated in close proximity to gold workings, where miners left behind their material traces. We cannot hope to understand why some sub-regions in the northern Horn show greater demographic complexity in the 1st millennium B.C.E. unless we examine engagement with exploitation of precious minerals and participation in local as well as long distance trade, be it salt or gold or a variety of products.

Finally, local identities are often linked to quite different ways of building and using domestic structures. In the case of the ancient Ona, we see sub-regional variation between Sembel and Mai Chiot, and we also see that recent domestic structures around Asmara differ significantly from those of northern Tigray. These contemporary configurations help to inform the archaeological record when we can trace back through strong inference similar forms of architecture in the Ancient Ona. These similarities have yet to be documented beyond the Mai Chiot site, again pointing out to us that variations within sub-regions are apt to tell us much more about how people lived their daily lives than similarities, especially when those differences are linked with variations in subsistence practices, the exploitative economy, and belief systems.

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