

**ETHIOPIA**

**An Ethnoarchaeology of lithic site-formation patterns amongst the Hadiya of Ethiopia: Some initial results**

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and use patterns among hideworkers provide insights into the variability in choice of activity and discard spots, which in turn potentially govern the pattern in which sites form.

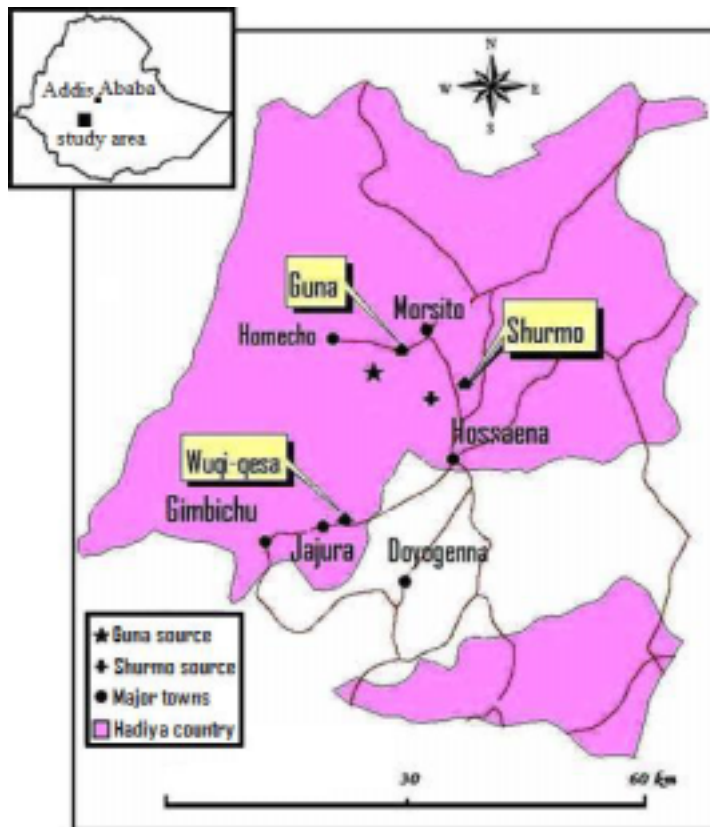
**The Hadiya**

The Hadiya belong to the East Highland Cushitic linguistic cluster and inhabit much of the northern sections of the area between the Rivers Gibe and Bilate (Figure 1). While the majority of the population is predominantly agrarian, a very small section is engaged in crafts. The people engaged in craft production are collectively known as the *Fuga*. As one specialized artisan class within the *Fuga*, the *faqi* (Amharic for ‘hideworker’) take up the lowest position (Gebre Selassie 2000; Sahle 2008). Hideworking among the Hadiya is an exclusively male activity, as is the case amongst other groups in the region (for exceptions see Brandt and Weedman 1997, 2005; Halaand 1987).

**Introduction**

Patterns and processes involved in the formation of lithic sites are usually inferred from the analysis of assemblages in archaeological contexts, whereas a rare insight into such dynamics is presented by ethnographic cases (Clark 1981: 70). Southern Ethiopia contains a setting where hideworkers still make and use stone scrapers on a daily basis (e.g., Brandt and Weedman 1997; Clark and Kurashina 1981; Gallagher 1977a; Sahle 2008). Artisans that belong to a low-status occupational ‘caste’ (Freeman and Pankhurst 2002; Gebre Selassie 2000) within a few distinct ethnic groups in this part of the country, continue to make unifacial end scrapers for their hideworking activities. Among the Hadiya, this tradition provides an uninvestigated yet very rich position from which various aspects of stone tool-use can be studied (Sahle 2008). Here, we attempt to provide an overview of the different patterns and processes in which lithic sites related to hide-working activities can form, and can indicate the potential of the setting for further investigations. Initial results show that comparisons of the scraper manufacturing

**Figure 1:** A map of the study area showing study villages and raw material sources.



**Figure 2:** Manufacturing of scraper at (a) exterior wall of hut, and (b) natural burrow.



There are opposing views on whether such marginalized artisans represent distinct groups that are different from the dominant ‘host’ groups within which they live (e.g., Gallagher 1977b; Gebre Selassie 2000; Haberland 1978; Levin 1974), or if they have similar ethnic affiliations and are only low-status occupational outcasts (e.g., Brandt *et al* 1996; Hallpike). In light of the depth and priority of research, Teclé Haimanot’s (2000) ethnohistorical analysis seems to give a plausible explanation as to who the *Fuga* are, in particular among the Hadiya and neighboring groups.

### Raw Material Procurement and Scraper Use

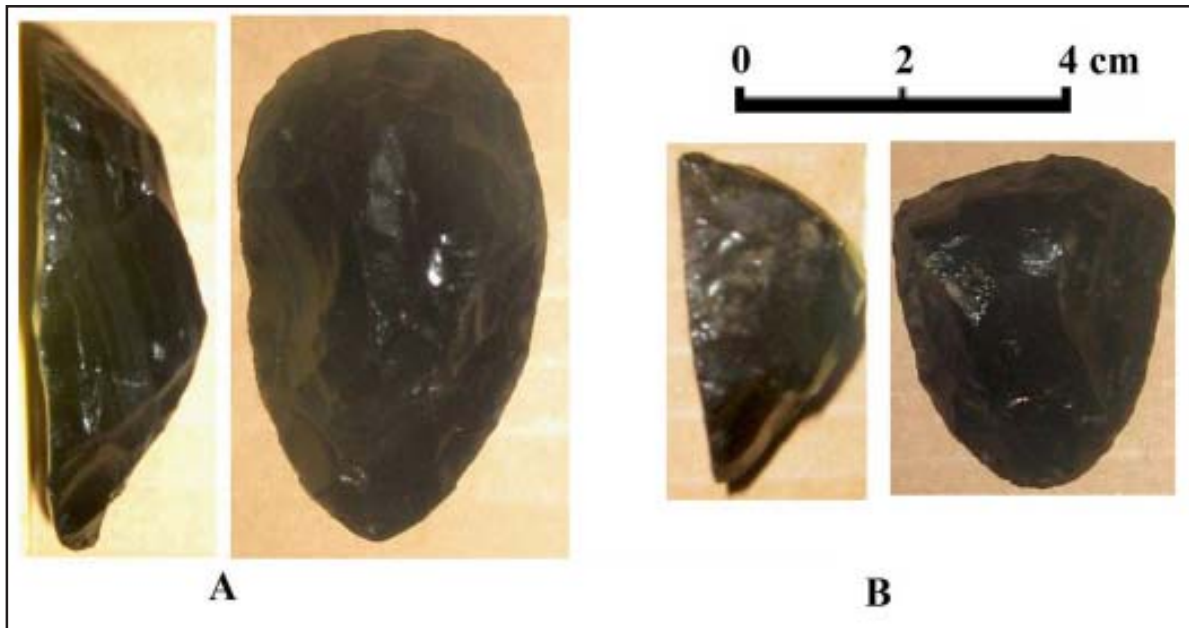
Hideworkers manufacture unifacial scrapers from obsidian raw materials that are either directly self-quarried from nearby sources, or purchased at local weekly markets. Some hideworkers use bottom parts of artificial bottle glass to make their hidescrapers. A general survey that one of us (Y.S.) conducted in 2007, enabled the selection of a study group for a more in-depth investigation. Accordingly, successive fieldwork in 2008 enabled a more-focused investigation of the craft technology among nine study-group hideworkers (who use only obsidian raw material) from three different villages, namely Shumo, Guna, and Wuqi-qesa. Hideworkers from Shurmo and

Guna villages self-quarried their raw material directly from two discrete nearby sources (Figure 1) whereas the Wuqi-qesa group relied on commercial blanks purchased from the nearby weekly market at the town of Jajura (Figure 1). The commercial blanks are quarried from outside the Hadiya territory as there are no obsidian sources near the Wuqi-qesa area. The amount of time spent in raw material acquisition by the different groups, ranges between 2 and 3 hours. Overall size and number of flake blanks obtained from a single procurement episode differ between the self-quarrying and purchasing groups: the former collect around 25 flake blanks that are larger in size where as the latter purchase only up to six blanks that are smaller.

Obsidian sources quarried by Shurmo and Guna groups are farmlands or desolate hillsides. Flake blanks with the ideal shape and size are collected. In rare occasions, quality-test blows and/or primary decortication of otherwise desirable flake blanks are made at the quarry.

Among all groups, scrapers are produced using a similar direct, free-hand, hard-hammer percussion technique. A piece of iron is used as a percussor (Figures 2a and 2b). All groups carry-out scraper manufacturing outdoors, beside the exterior walls of their huts or in natural burrows in the backyard. The plano-convex scrapers produced (Figure 3a), are then

**Figure 3:** Pictures of typical Hadiya scrapers: (a) unused, (b) exhausted.



inserted into sockets of a special wooden handle. Processed euphorbia mastic is used to affix the scrapers in the haft for use in scraping cattle hides. Hafting (as well as dehafting) always takes place near the hearth, where the mastic is processed and made malleable to haft the scraper (Figure 4).

The hide-scraping activity takes place indoors, with the cattle hide tied to a vertical wooden frame at one corner of the hut (Figure 4). The activity involves long strokes and occasional chops that are made on the fleshy side of the hide tied to the vertical frame in order to remove excess subcutaneous fat. This results in the continuous dulling of the working edge of the hafted scraper; recurring retouch is applied to maintain scraper sharpness. Resharpener retouch is always made indoors. On average, about ten resharpener episodes are made before a single obsidian scraper is exhausted. It takes between four and six scrapers to scrape a cow hide completely. Totally exhausted scrapers are finally dehafted and discarded (Figure 3b).

**Activity-area Choice and Implications for Potential Site-formation Patterns**

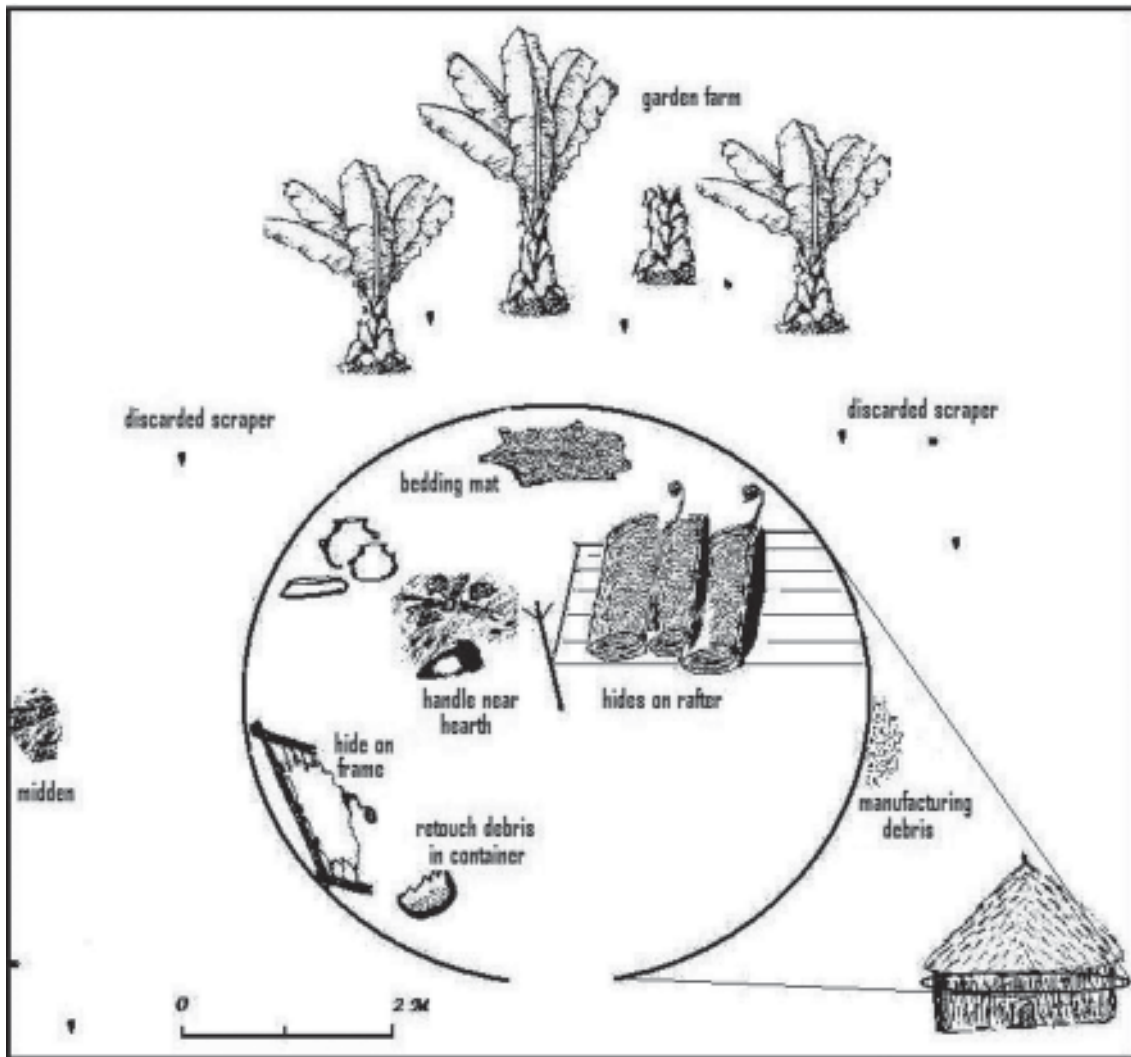
Knapping activities made at the quarries by the Shurmo and Guna groups, remain restricted to

the few strikes that are made to check the quality of the flake blank, reduce excess size, and/or remove cortex from the bulging dorsal surface. Debris from this activity, which falls randomly on the quarry ground, is large and often contains cortical surface. In quarries where ploughing takes place, there is cultural disturbance of this primary accumulating debitage.

Scraper manufacturing by all groups takes place near residences. The sharp manufacturing spalls fall beside exterior walls of the hut or in the natural pit. Preference for the manufacturing spot is not associated with any specific group, as hideworkers from Guna as well as Wuqi-qesa produced their scrapers at shallow burrows in the backyard while most preferred the location beside the exterior wall. Manufacturing debitage which accumulates in burrows would form primary deposition (Schiffer 1976). In contrast, similar debitage accumulating beside exterior walls, is later dumped further away wherever the midden forms a huge heap, resulting in secondary refuse (Schiffer 1976).

Resharpener is an indoors activity near the vertical scraping frame, and is applied to hafted scrapers. The miniature and exceedingly sharp debris produced from the resharpener retouch, falls into a piece of broken ceramic, basket, or, in some cases, wooden

**Figure 4:** Plan map of house hold and discard patterns of a typical Hadiya hideworker.



bowls placed near the frame (Figure 4). Some of the hideworkers dumped such debris at middens beside the wall where the scraper manufacturing takes place. Others disposed of this under trees in the garden farm, allowing it to form a pile with other domestic refuse. In both cases, such debris is disposed of carefully as it can cut into the soles of people (nearly everyone in the village walks barefoot).

Exhausted scrapers have dulled edges and present no harm to bare feet. As a result they are disposed of mostly at random. Disposal can be near the hearth, where exhausted scrapers are dehafted, in which case they are swept out later with domestic dirt and dumped into the midden; in front yards ex-

hausted scrapers are picked-up by children or pushed along pathways; and if they are disposed of in back yards, they are covered with soil from light garden farming.

### Conclusions

The manufacture, use and discard of scrapers among the Hadiya hide-workers produced both primary and secondary refuse (*sensu* Schiffer 1976). Distinct refuse were subsequently produced during the various stages: 'test knapping', primary reduction and decortication; actual manufacturing of scrapers; resharpening retouch; discard of completely ex-



hausted scrapers. Intra-group variability in discard and space-use patterns observed among the hideworkers, determines the type of sites that will be formed eventually in the “archaeological context” (Schiffer 1987: 47). Although the variability observed in activity-area selection does not pertain to group differences, the differential raw material procurement strategies would produce different volumes of debitage as well as exhausted scrapers. In other words, Wuqi-qesa hideworkers, to whom raw material acquisition incurred monetary cost, produced more retouch debris since they try to extract more use from their scrapers. In addition, these hideworkers applied careful retouch and conservation measures in order to maximize the use life of their scrapers. This curation (*sensu* Shott 1996) in turn meant a slower frequency at which their exhausted scrapers entered into the archaeological record as compared to the Guna and Shurmo groups.

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Financial support for the broader Hadiya ethnoarchaeological study was provided by the School of Graduate Studies of Addis Ababa University. Y.S. thanks the Hadiya Zone Culture and Information Bureau for facilitating his fieldwork in the region and K.W. Arthur for her comments during the wider study.

### Bibliography

Brandt, S.A.

- 1996 The Ethnoarchaeology of Flaked Stone Tool Use in Southern Ethiopia. In G. Pwiti and R. Soper, editors, *Aspects of African Archaeology, Papers from the 10<sup>th</sup> Congress of the Pan-African Association for Prehistory and Related Studies*. Harare: University of Zimbabwe Publications, pp. 733-738.

Brandt, S. A., and K. J. Weedman

- 1997 The Ethnoarchaeology of Hide Working and Flaked Stone Tool Use in Southern Ethiopia. In K. Fukui, E. Kuimoto, and M. Shigeta, editors, *Ethiopia in Broader Perspective: Papers of the XIIth International Conference of Ethiopian Studies*. Kyoto: Shokado Book Sellers, pp. 351-361.

Brandt, S. A., K. J. Weedman, and Girma Hundie

- 1996 Gurage Hide Working, Stone Tool Use and Social Identity: an Ethnoarchaeological Perspective. In G. Hudson, editor, *Essays on Gurage Language and Culture: Dedicated to Wolf Leslau on the Occasion of his 90th Birthday November 14*. Verlag: Harrassowitz, pp. 35-51.

- 2002 The Ethnoarchaeology of Hide Working and Stone Tool Use in Konso, Southern Ethiopia: an Introduction. In F. Audoin-Rouzeau and S. Beyries, editors, *Le Travail du Cuir de la Préhistoire à Nos Jours*. Antibes: APDCA, pp. 113-129.

Clark, J. D.

- 1981 Ethnoarchaeology in Ethiopia and its Relevance for Archaeological Interpretation. In C. Roubet, H-J Hugot and G. Souville, editors, *Préhistoire Africaine: Mélanges Offerts au Doyen Lionel Balout*. Paris: Editions A.D.P.F, pp. 69-79.

Clark, J. D., and H. Kurashina

- 1981 A Study of the Work of a Modern Tanner in Ethiopia and its Relevance for Archaeological Interpretation. In R. Gould and M. B. Schiffer, editors, *Modern Material Culture: The Archaeology of Us*. New York: Academic Press, pp. 303-321.

Freeman, D., and Pankhurst, A., editors

- 2002 Living on the Edge: Marginalized Minorities of Craft Workers and Hunters in Southern Ethiopia. Department of Sociology and Social Administration. Addis Ababa: Addis Ababa University.

Gallagher, J.P.

- 1977a Contemporary Stone Tool Use in Ethiopia: Implications for Archaeology. *Journal of Field Archaeology* 4: 407-414.

- 1977b Ethnoarchaeological and Prehistoric Investigations in the Ethiopian Central Rift Valley. Ph.D. Dissertation, Dallas: Southern Methodist University.

Gebre Selassie, T.

- 2000 A Historical Survey of the Fuga Low-Caste Occupational Communities of South-Central Ethiopia. Ph.D. Dissertation, Addis Ababa: Addis Ababa University.

Haaland, R.

- 1987 *Socio-economic Differentiation in the Neolithic Sudan*. Cambridge: BAR International Series 350.

Haberland, E.

- 1978 Special Casts in Ethiopia. Chicago: Proceedings of the 5<sup>th</sup> International Conference on Ethiopian Studies, pp. 129-132.

Hallpike, C.R.

- 1968 The Status of Craftsmen among the Konso of Southwest Ethiopia. *Africa* 38: 258-269.

Levine, D.N.

- 1974 *Greater Ethiopia: The Evolution of a Multiethnic Society*. Chicago: University of Chicago Press.

Sahle, Y.

- 2008 *An Ethnoarchaeological Study of Stone-tool use among the Hadiya Hide Workers of Southern Ethiopia*. Unpublished MA Thesis, Archaeology Unit, Addis Ababa: Addis Ababa University.

Schiffer, M. B.

- 1976 *Behavioral Archeology*. New York: Academic Press.
- 1987 *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.

Shott, M.J.

- 1996 An Exegesis of the Curation Concept. *Journal of Anthropological Research* 52 (3): 259-280.

Weedman, K.J.

- 2000 *An Ethnoarchaeological Study of Stone Scrapers among the Gamo People of Southern Ethiopia*. Unpublished Ph.D. Dissertation, Gainesville: University of Florida.