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FORUM FOR AFRICAN ARCHAEOLOGY AND CULTURAL HERITAGE

**DYNAMICS OF POPULATIONS,  
MOVEMENTS AND RESPONSES  
TO CLIMATIC CHANGE IN AFRICA**

edited by  
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COVER: *A caravan and the city of Timbuktu in the background*

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## Preface

This volume contains the papers presented during the First Workshop of the Forum for African Archaeology and Cultural Heritage, held in Rome, 19-21 April 1995, at the University of Rome "La Sapienza" and the Istituto Italo-Africano.

The Forum was created in 1992 to foster the exchange of ideas and knowledge upon the archaeology, anthropology and environment of Africa. In pursuance of this aim, the first international meeting of the Forum had as its theme 'demography'. In fact this is one of the main areas in which scholars from a number of different disciplines can and must work together, for it has ecological-environmental, ethno-anthropological and economic implications.

The workshop was divided into five sessions: climate and population; cultural dynamics in North Africa and the Sahara; the history of the peopling of the Nile Valley; peoples, demography and language in Eastern and Southern Africa; and society and technology in Western and Central Africa. This volume does not include all the papers presented at the Workshop, but only those texts that had reached the editors by the deadline set. On the whole, the papers were concerned with the general sequence of development of society. The environment was one of the main themes – though not the environment itself (as was pointed out during the workshop), but the depiction of it and the ways it was perceived by people in the past. Several papers focused on the social structure which could be identified in Saharan and Nile Valley contexts. Funerary monuments are particularly valuable to the study of social structures and populations. Several contributors dealt with this theme, from Niger, to Libya, to Egypt. Such findings highlight the problems to be faced in understanding population dynamics between the Sahara and the Nile. The contributions were particularly concerned with the development of pastoralism, by far the most important social phenomenon in recent North African prehistory.

As regards the archaeological record in sub-Saharan Africa, the workshop showed the value of a more focused study of the relationship between cultures and their environment, emphasizing the varied economic, social and political systems. It was shown that ethnic identity cannot be related to a particular economy, but was a function of differentiated responses, both to economic factors and the environment. Linguistic studies can make an important contribution to the study of Africa's past, in particular when linguistics and archaeology complement each other.

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MARCO BASSI

### HUNTERS AND PASTORALISTS IN EAST AFRICA: THE CASE OF THE WAATA AND THE OROMO-BORANA

The term Waata is used to refer to a number of scattered communities of hunter-gatherers and pottery makers, speaking the Oromo language<sup>1</sup>. My own field data only concern those Waata found in association with the Borana, a group of pastoral Oromo living in northern Kenya and southern Ethiopia<sup>2</sup>. I will discuss some aspects of their culture, their recent history and their interrelationship with the pastoralists, and the background to the theories and models concerning East African hunters, hoping to contribute, with a comparative case, to the construction of new models for a sociologically-oriented interpretation of the East African archaeological findings.

#### Theories on the origin of hunters and their interrelationship with pastoralists

The early anthropological literature on the East African hunter-gatherers was dominated by the concept of race. The communities of hunters were basically regarded as the more or less pure remains of a primitive hunting people, the aboriginal inhabitants of the region<sup>3</sup>. The debate was mostly centred upon the specific race represented by each group, on the basis of their somatic characteristics or, especially at a later stage, of linguistic and archaeological evidence. According to Biasutti, the Waata were assimilated to the Midgan of Somalia and to the Dorobo of Kenya. They were all regarded as the remnants of "Negrillos" (Pygmies) or Bushmen (Biasutti 1905: 175). Cerulli rejected the Bushmen hypothesis, stressing the possibility that each geographical unit of the Ethiopian Waata may have a different origin. With regards to the "Southern Waata", a category including the hunters found in association with the Borana (Cerulli 1922: 200), he noted that their physical characteristics, as described by several travellers, showed clear evidence of a "Negro" or "Negrillos" origin (Cerulli 1922: 212)<sup>4</sup>.

According to the aboriginal theory, the hunters were dispersed and forced

into marginal environmental or political positions by food-producing incoming people, more organized and technologically more advanced. In Ethiopia the invaders were identified with the Semites, the Hamites or the Cushites, expanding southwards (Biasutti 1905: 175; Cerulli 1922: 212-213) and with the Negro expanding eastwards or northwards (Biasutti 1905: 175).

Despite a gradual shift from the concept of race to the idea of ethnicity, with linguistic groups replacing racial categories, the "remnants model" is still referred to in recent contributions. However, contemporary hunters are no longer identified with the palaeolithic inhabitants of the region, but they are rather considered as "broken tribes", or the survivors of successive waves of invaders exploiting an alternative ecological niche<sup>5</sup>. The concept of ecological niche, an import from the ecological sciences, implies the use of differentiated natural resources in a single geographical area, hence cohabitation in the absence of economic competition. It can accommodate a number of different theories and models concerning the practical settings of the society and its adaptation to the environment. For instance, van Zwanenberg considered the Dorobo hunters to be an integral part of their host pastoral society (1977: 13). The hunters would simply be impoverished pastoralists, having turned to exploit a different eco-niche in time of physical and social adversity, as a survival strategy (van Zwanenberg 1977:12; Chang 1982). Since hunting-gathering and pastoralism are regarded as two modes of subsistence within a single mode of production, practised by the same population, Van Zwanenberg's formulation excludes the remnants theory. The single society theory is not only supported by the recurrent and even institutionalized, economic and social interaction occurring between East African hunter-gatherers and pastoralists, but also by the historically-documented practice of some impoverished or outcast herders of turning to hunting or of joining bands of hunter-gatherers (Styles 1981: 857; Huntingford 1929; Hobley 1903; Sobania 1979; Aneesa Kassam 1986: 197)<sup>6</sup>. Data on the reverse process, from hunting to pastoralism, are especially concerned with the Dorobo of Kenya (Berntsen 1976; Galaty 1986: 123)<sup>7</sup>. Occasional intermarriage between the hunter-gatherers and the pastoralists is also reported, mostly between the Maa-speaking community and the surrounding Dorobo (Spencer 1973: 200; Galaty 1986: 123), but also in Ethiopia, between Kwegu hunters and Mursi pastoralists (D. Turton 1986: 150). Nevertheless it has been noted rightly that the evidence for dynamic relations between agro-pastoralists and hunter-gatherers does not necessarily exclude the autonomy of the hunters society (Galaty 1986: 111-112; Harvey 1976: 24) or a differentiated ethnic origin (Styles 1981: 857; Blackburn 1974:147). It has been suggested that those hunters who are often regarded as a "caste" within a broader society, as the Ethiopian Waata, may have passed through a process of "mutualistic specialization", basically a reciprocal adaptation, determined by a

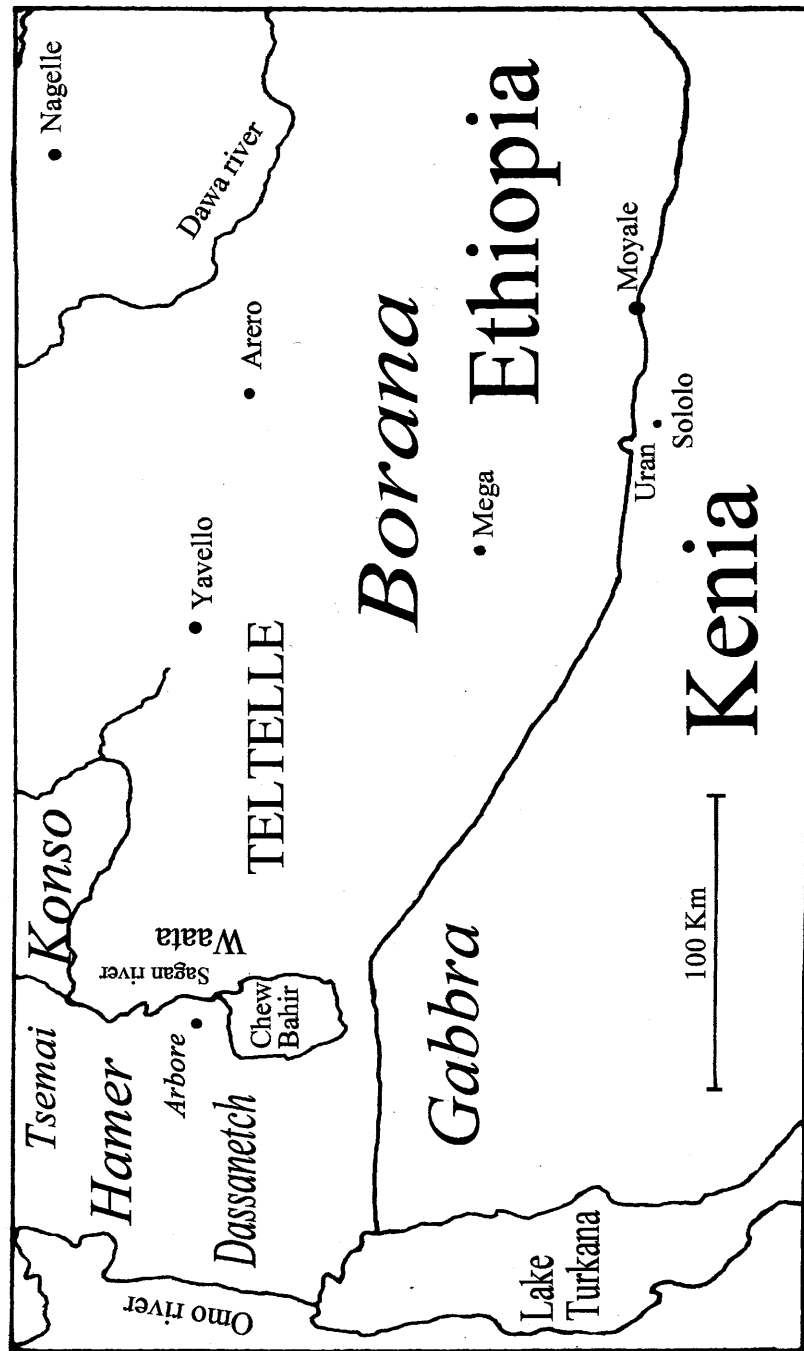


Fig. 1- The Waata and Oromo-Borana distribution in Southern Ethiopia.

protracted and systematic interaction (Levine 1974: 169; Styles 1981: 856; Todd 1978). The actual incidence of ethnic permeability between the Maasai and the Okiek hunters has also been played down by Blackburn (1974:147). Turton has observed that, although transactions of personnel between the Mursi and the Kwegu occasionally occur in both directions, we cannot really talk of a "permeable membrane" (Kenny 1981: 480) between the hunters and the pastoralists. He rightly has noted that a temporary change in the mode of subsistence does not by itself imply a change of ethnic identity (D. Turton 1986: 165), a view shared by Galaty with reference to the relationship between the Maasai and the Okiek (1993: 186-7). In some cases the passage of the hunters to a pastoral way of life would be institutionally prevented by the client-patron relationship, as in the Kwegu (D. Turton 1986: 165) or the Waata and Boni (Stiles 1981: 855).

When hunter-gatherers and pastoralists are considered as two separate social entities, their mutually advantageous coexistence and interaction are often described in terms of "symbiosis" (Aneesa Kassam 1986; Kenny 1981: 477; Odner 1986: 311; Huntingford 1955: 609), "non-competitive proximity", "economic complementarity" (Kenny 1981: 477), "mutualistic specialization" (Stiles 1981: 856), expressions directly related to the concept of ecological niche.

#### Economic interaction between the Waata and the Borana

In the area traditionally known as *Dirre* - to the southwest of the Dawa river around the towns of Mega, Yavello, and Arero - the Borana most strongly maintain their traditional religion and associated values (fig. 1). In *Dirre* their interrelationship with the Waata is considered to be closer to the pre-colonial<sup>8</sup> time by both groups and the Waata are strictly identified and they describe themselves as hunter-gatherers and clay-pots makers. They possess their own clans and lineages independent from the Borana descent system. Some Waata conjugal families claim a secondary affiliation to a Borana clan, based on a client-patron relationship with a Borana male. This is actually a very loose relationship, since a Waata moves and acts within the Borana territory in a totally independent way from his patron. In *Dirre* the economic dichotomy between the Waata and the Borana is very clear, since the Waata are forbidden to keep cattle. As a consequence the Waata villages, similar in the style and structure of their house to those of the Borana, lack cattle enclosures. Although large autonomous Waata villages are said to exist within the Borana homelands (they certainly existed at the beginning of the twentieth century) the only evidence I have come across myself consists of a few Waata houses, usually of a single family, temporarily settled on the outskirts of a Borana village. The Waata family may provide for the Borana meat of a few wild animals and especially baked clay pots, wood carvings<sup>9</sup> and honey. In return, they receive mainly milk and occasional portions of cow-sheep-goat

meat. Since the Borana system of beliefs prevents them from engaging in clay pottery making<sup>10</sup>, Borana women are particularly dependent on the Waata as providers of the *okote*, a certain type of baked clay pot, considered by the Borana to be their traditional cooking pot<sup>11</sup>. On the other side, a Waata informant claimed that they have been forced to engage in pot-making as a survival strategy, in order to exchange them for meat and milk with the Borana. This activity would have later become part of their *aada* (culture, tradition).

The spatial arrangement described above is getting very rare; certainly the diffusion of manufactured metal pots has greatly reduced Borana women's need for Waata-made clay pots, while, on the other side, milk is getting scarcer and hardly sufficient to cover Borana food needs. Nowadays the Waata are especially attracted by the market towns that have been growing up over the last century, inhabited by a mixed ethnic population. In the markets they sell fire-wood, charcoal, honey<sup>12</sup>, various roots, aromatic or medicinal woods, grasses and resins. Many of them are also found in the returnees-displaced-refugees camps assisted by the UN and other international agencies. As a consequence, the economic exchange and interdependency with the Borana have become almost irrelevant.

#### A differentiated system of beliefs

In *Dirre* the Waata are not allowed to pay cattle bridewealth, implying that they may not marry a Borana girl. For the Borana, marrying a Waata woman is considered distasteful, which they often explain by saying that "the Waata eat everything". The Borana are, indeed, very restrictive in their alimentary habits and this, in turn, is connected to their system of beliefs and values. For example, they consider the soil to be contaminated. The soil is associated with death, perhaps because corpses are buried in the soil, an idea expressed by *aada biyee*, literally "the custom of the soil", meaning all the funeral ceremonies and related rituals. Thus contact with soil is considered to be dangerous. Equally contaminated are animals which eat roots, since roots are found in the ground, in close contact with the soil. Birds are not eaten either, because they fly in the sky, the domain of *Waaqa* (Sky-God). The Waata eat all animals, including wild pigs and birds, and they handle soil in the making of clay pots. Therefore, in the view of the Borana, they are always in danger. Since, within the Borana family, food is controlled by the women, marrying a Waata girl would mean to become dependent on Waata food habits, with an awful danger for the future of the family herd<sup>13</sup> and for the survival of the family in future generations.

We should now reverse our perspective, asking ourselves how can the Waata do such "horrible" things. To them soil is not contaminated, and meat is meat: there is no such thing as an impure or a pure animal. They simply do not share the same system of beliefs and values as the Borana and, consequently,

they can do what the Borana are afraid to do. Different modes of subsistence, food habits and productive behaviours do not only imply diverse organizational settings, but also a different system of beliefs, an idea basic to Bernardi's distinction between pastoral, agrestic and sylvan theism (Bernardi 1995: 67). Although mutually exclusive, the two ways of life and world-views are not perceived as being antithetic or conflicting and this can explain the ambivalent attitude of the Borana and other pastoralists towards hunter-gatherers (Aneesa Kassam 1986: 195-6). Borana youths often openly express contempt towards the Waata way of life, but Borana elders tend to remark that the Waata have their own *aada* (custom), which has to be considered with due respect. The complementarity of the two ways of life is especially expressed in Borana rituals. As happens also among their neighboring camel-keeper Gabbra-Oromo (Aneesa Kassam 1986: 198-199), the Borana will entrust to a Waata the performance of a number of ritual actions which they avoid doing personally, so that no important Borana ceremony should be performed without the participation of a Waata. Hence, the relationship between the Waata and the Borana pastoralists involves a complementary diversity both on the economical and on the ideological level.

#### An environmental and political crisis

Although many recent sources explain the hunters in terms of impoverished herders, evidence from the Borana area shows that, during the last century, the dominant pattern of movement has rather been the opposite, as a response to a dramatic environmental and political crisis induced by events related to the colonial experience. The introduction to and the diffusion of firearms within the region led to a dramatic drop in the wildlife population. In a first phase the European (in Kenya) and African (in Ethiopia) colonizers<sup>14</sup> themselves engaged in game activities. Later on, especially in southern Ethiopia after the Italian invasion, firearms became largely available to the pastoralists. The latter could easily succeed in hunting, without any specialized skill, and get access to both wild animal meat and ivory, bypassing the hunters<sup>15</sup>. The result was an overwhelming expansion of the hunting pressure. The same colonial experience led to the state-related superimposition of new laws, including the hunting ban in Kenya, in clear contradiction to the core of the hunters' values. The hunting mode of subsistence was thus undermined both at the material and ideological level, forcing the hunters to turn to marginal activities or, where possible, to try to integrate themselves into a fully pastoral or horticultural economy. This shift is clearly elucidated by the economical conditions and the perceived identities of the Waata in northern Kenya and in Sagan river valley of Ethiopia, respectively to the south and to the west of *Dirre*. Though contiguous, each of the three areas - hereafter referred to as context A (*Dirre*), context

B (northern Kenya) and context C (Sagan valley) - is characterized by a different Waata-Borana interrelation. The comparison of the three contexts clearly shows that ethnic permeability is a normal response to a crisis situation. People can shift, individually or as a whole community, from one to another mode of subsistence, but this passage requires, as suggested by D. Turton (1986: 165), a change of identity as well, including new beliefs and values<sup>16</sup>. The same comparison shows that this process may take place with differentiated social dynamics, even within the same hunters - pastoralists association.

In northern Kenya, close to the Ethiopian border around the towns of Sololo and Moyale, the Waata are hardly distinguishable from the Borana. In fact, they claim full Borana identity, which is not questioned by their Borana neighbours. Asked about their clan affiliation, they indicate a Borana clan name, taken from their previous "patron"; only after further investigation do they admit to being Waata<sup>17</sup>. In these areas the Waata are allowed to keep cattle, they mix with the Borana within settled agricultural villages, and they systematically intermarry with them. Only some Waata continue to provide roots, teeth-sticks and other bush-derived items. We have here a transactional situation of double identity accepted by both sides, with the Borana identity replacing, at the individual level, the Waata identity. In social practice the full assimilation of the Waata into the Borana community is completed. We may explain the different situation between Kenya and *Dirre* by the hunting ban in Kenya, by which the "traditional" mutually accepted dichotomy between hunting and pastoral activities appear to be senseless. At the same time the overtaking in social practice of any dichotomy was facilitated by the passage to a mainly agricultural mode of subsistence, a culturally free economic area.

To the east of the Teltelle plateau, along the eastern escarpment of the lower Sagan valley, there is a zone which is considered by the surrounding pastoralists as properly Waata. As already reported by early travellers (Vannutelli, Citerni 1989: 344; Colli di Fellizzano 1905: 111), this is an enclave where the Waata live on their own and autonomously control land resources. These Waata, locally known as Waata Wanduu, are reported as having been pure hunters-gatherers and fishers until the first half of this century; after the diffusion of firearms in the region they turned to other modes of subsistence, such as flood-retreat agriculture and pastoralism. When I met them in 1993, they insisted on stressing their complete Borana identity. They strongly denied having or having had an autonomous clan system, claiming Borana clan names. Their villages were identical to the Borana ones, including cattle enclosures. The Borana identity of the Sagan-Waata was at that time recognized by all the western pastoralists and, particularly, by the Arbore, a neighboring group of agro-pastoralists with whom intermarriage is frequent. It was, however, totally rejected by the Borana proper, who continued to classify them as Waata with all the implicit restrictions on

intermarriage. We are here faced by a collective attempt to shift from a Waata hunter identity to a Borana pastoral identity. Differently from the Kenyan case, the disagreement over their new identity reveals a situation of latent conflict with the Borana, due to competition for pastoral resources.

### The linguistic aspect

The East African hunter-gatherers usually speak the language of the people with whom they are associated. Many of them are also reported to speak their own idiom, which is often regarded by the supporters of the remnants or survivors theory as an inheritance of their original language. The use of a "special" language spoken by the Waata beyond the Oromo had already been reported by Massaja (1885-1888: 368). As in many similar cases, this language was indicated by several authors as being remarkably different from the other languages spoken in the area - unknown, mysterious, incomplete, lacking any systematic linguistic data (Cerulli 1922: 204). Cerulli pointed to the analogy with the Midgan hunters of Somaliland and he explained the scarcity of reliable linguistic information as their attempt to keep their language or jargon secret from those who do not belong to their hunting caste (1922: 204). The idiom of the hunters is thus considered in relational terms - *us* and *them* - a first step towards a clearer formulation of the use of language as a marker of ethnic diversity, an issue well illustrated by the Waata-Borana case. The *Dirre* Waata (context A) claim to speak their own language, simply called *afaan Waataa* ("language" in Oromo "of the Waata"). When they talk among themselves, or with their Borana neighbours or in the market, they use a perfect Oromo-Borana<sup>18</sup>. But when a group of people gathers, the Waata may turn to their own "language", not understandable by the Borana<sup>19</sup>. In this way the Waata try to stress their autonomous identity, thus rejecting the idea of a single cultural complex involving both Borana and Waata, of which they would only be the "impure" or "polluted" part<sup>20</sup>. In northern Kenya (context B), where the social integration between the two groups has been reached, there is no longer any need to state an autonomous ethnic identity any-longer, nor to reject an older Waata identity. In fact, the Kenyan Waata recognize that they have had their own language, but if asked to speak it they usually reply: "I have forgotten it"<sup>21</sup>. In contrast, in the Sagan valley the Waata strongly deny having ever spoken a language different from that of the Borana. This attitude responds to the need to stress a full Borana identity as a way of affirming their rights of access to Borana pastoral resources. In all these cases the use or rejection of a different idiom seems to respond to a functional need to affirm or reject an ethnic identity differentiated from that of the dominant pastoral group.



The relational theory of languages does not match well with the view of a long-lasting persistence of an original language of a hunting community. Certainly a regional language spoken prior to the arrival of new invaders may have well absolved the function to differentiate the identity of the hunting community. But this does not necessarily imply any linguistic continuity of a group of hunters. Recent history has shown that a group of hunters may change language in a very short time. In the nineteenth century the El Molo, a small group living on the southeastern shore of Lake Turkana in Kenya, were reported to speak an eastern Cushitic language. After the arrival of the Samburu they turned to the Maasai language and they are now turning to the Turkana one, the Turkana having become dominant in that area. Each previously spoken language may equally satisfy the identity needs. Other studies have shown that a "secret" idiom may purposely be invented with simple syllabic inversions and other expedients, as in the case of the Avangura, the ruling aristocracy of the Zande (Evans-Pritchard 1954: 185-6).

### The interpretation of East African archaeological findings

It is reasonable to assume that, before the diffusion of firearms, hunting was an efficient mode of subsistence in East Africa. By exploiting an ecological niche different from the pastoral one, it required specialized skills, different social settings and a differentiated system of beliefs and values. The two modes could coexist on the same territory. Since mutual assistance and reciprocal exchange of both goods and, eventually, personnel were mutually advantageous, the association of hunters with pastoralists can be considered a normal East African pattern. The active interaction continuously occurring between hunters and pastoralists makes it difficult to speak of hunters as the survivors of an ethnic substratum over a long time-span, at least for those who have not constantly maintained a large autonomous hunting territory. Their specific features (language, hunting technics, beliefs, society...) are continuously changing in a process of double adaptation to the natural environment and to neighboring groups of non-hunters (D. Turton 1986: 165).

A second relevant question regards hunter-gatherers and pastoralists whether they should be considered as a single society or as two differentiated societies. The answer is basically related to on which perspective is taken on what views and assumptions the concept of society should be based. However, since hunters tend to affirm a differentiated identity, in an emic perspective they should be considered as a separate social entity. In any case, the distinction between hunter-gatherers and pastoralists has some objective sociological implications on the living people. Much more questionable is if the same distinction was equally operative among prehistoric people. Perceived identities

do not apparently leave any evident archaeological trace, while exchanged artifacts, goods, food and other material culture, as well as shared territory, may appear to bear a similarity of cultures while hiding some unknown difference. The existence of an ethnic distinction between pastoralists and hunter-gatherers may thus go totally unnoticed, unless more attention is paid to the few archaeological markers that might, with some luck, be available. Values and identities might be expressed in rock-paintings and rock-engravings, while some information on the subsistence-mode might be extrapolated from slight differences in the settlement structure and, of course, in food remains. However, it should be considered that - in condition of severe environmental, social or political stress - cultural, economic and linguistic change may be extremely fast<sup>22</sup> and flexible. This time span is hardly comparable to archaeological time. Thus there is a possibility that the remains of both domesticated and wild animals associated with each other in an archaeological complex, or even found mixed in a single site, may currently be interpreted as having been produced by the same undifferentiated and unspecialized people (Odner 1986: 314-318), but actually have been produced during different cultural phases or by socially differentiated, but correlated people having successively occupied the same site. It may be worth recalling here that the Cushitic-speaking Borana have a system of belief which is incompatible with clay pottery making<sup>23</sup>. This activity, which has sometimes been associated with a pastoral mode of production as in the so called Kenyan "pastoral neolithic", is instead compatible with a hunting-gathering ideology<sup>24</sup>.

The combination of archaeological evidence with linguistic and genetic data, especially after the progress of molecular biology, can perhaps be constructively utilized to clarify, in diachronic terms, the internal dynamics of the hunter-pastoralist interaction: this is especially likely if the different peculiarities of the three phenomena are taken into account. Languages change and spread differently to both genetic characteristics and material culture. From a sociological point of view, differences in the three sets of data might potentially be more telling than mutually reinforcing similarities. But, of course, we need to elaborate and refine our interpretative models. The case of the Waata and the Borana shows that not only the same event, let us say a drop of wildlife population<sup>25</sup>, may have different effects on the three types of phenomena, but even a slightly different political setting may generate totally diverse cultural and social answers, even within a small geographical area, concerning the hunter-gatherer association with a pastoral people. In order to exemplify the issue, we may take, as a starting point, the pre-colonial period and arbitrarily hypothesize that at that time the Waata associated with the Borana were a homogeneous group, sharing language, genetic pool and material culture. During my research, not more than three generations later, the Sagan-Waata (context C) showed a material culture and a language identical to those of the

Borana. They would have actually been classified as Borana, had the researcher not made a deeper enquiry among all the surrounding groups on their ethnic identity. However, from a genetic point of view, they might be closer to the Arbore agro-pastoralists, with whom they systematically intermarry, than to the Borana proper. The *Dirre* Waata (context A), showing the typical material culture of the hunter-gatherers and clay pot makers, would immediately be classified as Waata. They would probably share a genetic pool with the Sagan-Waata, especially in the mt-DNA component<sup>26</sup>, but they would linguistically differ from the latter and from the Borana. The northern Kenyan Waata (context B) would still be recognized as Waata under any condition of research though, but they do not show any linguistic, spatial or food-producing difference from the Borana. If their genetic pool did still somehow differ from that of the Borana, such a difference would soon vanish due to systematic intermarriage.

#### Notes

<sup>1</sup> Earlier authors have tended to include the Waytu in the Waata category. These communities of hunters are found in association with the Amhara people in Northern Abyssinia, along the banks of Lake Tana and the Blue Nile. They speak Amharic rather than Oromo.

<sup>2</sup> This paper is based on data collected in 1986 in northern Kenya, in 1989 and 1990 in the Borana homelands in Ethiopia and in 1993 in the Sagan valley in Ethiopia. The author expresses his thanks for the assistance provided by Kenyan and Ethiopian academic institutions.

<sup>3</sup> See, among many others, Dundas (1908: 138), Hopley (1903: 33) Huntingford (1929: 336ff.; 1951: 4) and Murdock (1959: 59, 61).

<sup>4</sup> I personally could not really note any somatic difference between the Waata and the Borana.

<sup>5</sup> The specific historical explanations based on this general model are many. They include E.R. Turton (1975) and Stiles (1981) on the East African coastal hunters, Heine (1978) on the Boni, Sutton (1966: 4ff.) on various East African communities of hunters, Ambrose (1984) on the process of the specialization in hunting by previously relatively unspecialized groups.

<sup>6</sup> Some of these sources concern the Oromo-speaking Gabbra camel pastoralists of northern Kenya, who are thought to have turned to hunting and gathering during the great famine of the 1880s (Sobania 1979; Aneesa Kassam 1986: 197).

<sup>7</sup> With regards to the Waata of Kenya, there are some indications that certain clans of the Gabbra and the Sakuye may have assimilated some Waata (Aneesa Kassam 1986: 198).

<sup>8</sup> *Dirre* area was incorporated into the Ethiopian empire at the end of the nineteenth century.

<sup>9</sup> Good carving is also made by Borana specialists.

<sup>10</sup> This is the reason why poor Borana women could never be convinced to engage in pottery making for market sale, despite the efforts of the international NGO development agents (Claudia Futterknecht, personal communication).

<sup>11</sup> The cultural value attributed to the *okote* explains why most Borana families still try to keep at least one *okote* in their house, despite the fact that manufactured metal pots are now easily available, cheaper and more durable.

<sup>12</sup> This commodity is directly sold to town based merchants or drink house keepers for distillation.

<sup>13</sup> A similar sense of danger for the survival of cattle is well elucidated by D. Turton (1986: 150-151).

<sup>14</sup> The large availability of firearms to the Abyssinian soldiers is well documented.

<sup>15</sup> The client-patron relation has been regarded as a way of exploiting hunters as a source of ivory both by Stiles (1981: 854), with regard to the Somali and the Oromo, and by D. Turton (1986: 167-168) concerning the Mursi. They report that the Waata and the Kwegu hunters had to hand-over one tusk for each animal killed and the Mursi openly state that they need a Kwegu client to "shoot elephants". Ivory, whose demand on the international and local market increased in the nineteenth century (Beachey 1967), was exchanged for cattle (D. Turton 1986: 168-9), and, later, for firearms. In another perspective, the

client-patron relationship shows that the pastoralists did need the mediation of the hunters as ivory providers.

<sup>16</sup> Although under the threat of death some individuals may be ready to accept new food habits, I think that the great majority of the Borana would prefer to die rather than eat certain animals.

<sup>17</sup> Some may also indicate their Waata clan affiliation.

<sup>18</sup> Borana is a southern dialect of the Oromo language.

<sup>19</sup> During my field-work I have recorded some linguistic data with Giorgio Banti's advise. Banti is presently analyzing the same data.

<sup>20</sup> The position of the Waata has been compared by Stile to that of the Indian untouchables (1981: 855) and Aneesa Kassam has stressed, in analogy with the Indian caste system, the concept of pollution attributed to the Waata (1986: 190).

<sup>21</sup> They claimed that in the Sololo area only one old lady was able to speak it, but I could never meet her.

<sup>22</sup> Genetic change may be somewhat slower.

<sup>23</sup> In southern Ethiopia the Hamar agro-pastoralists do actually make and sell clay water-pots. However, this group is mostly considered to be the outcome of a southward expansion of the Banna agriculturalists into a more arid environment.

<sup>24</sup> Harvey has rightly observed that all contemporary hunter-gatherers are aware of different subsistence possibilities and that their activities must, to some extent, be based on choice (1978: 1-2). The passage to a food-producing mode of subsistence is not so much a matter of available technology, but rather of economic viability and, therefore, there is no reason to exclude the possibility that hunter-gatherers could control the capacity to make clay-pots.

<sup>25</sup> Conversely, a drought is likely to effect the pastoralists first.

<sup>26</sup> The mt-DNA sequences, inherited by the mother only, are not influenced by illegitimate sexual intercourse.

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ERNESTO MILANESE AND RENATO SASSAROLI

### TRADITIONAL LAND MEASURES AMONG THE SOMALI PEOPLE: EVOLUTION AND COMMON USAGE

The necessity for a general system of weights and measures resulted from the development of science and the diffusion of industrialisation. The first "Weights and Measures Agreement" dates to 1875. Italy officially adopted the decimal system in 1890; fifteen years later, in 1905, (Southern) Somalia became an Italian colony.

Early, in 1912<sup>1</sup>, the Government tried to rationalize national trade by adopting a policy for the standardisation of measures used in the country – at that time know as Benaadir; but, at the same time, it allowed the natives to use their local measures. They were still in use in 1940, as "the traditional measures belonged to the national customs and were in accordance to lawful business"<sup>2</sup>. It is probably true to say that a more powerful influence was played by the growing economic relationships with foreign countries and peoples than by any external normative power; as a result, units of measures shifted their value and/or field of application, and some fell out of use and were replaced by new ones.

In dealing with the Somali agricultural units of measure it seems quite unnecessary to point out that the field of investigation is narrow, because the agricultural system was regarded by scholars as less important than the nomadic animal husbandry.

#### Features of local traditional measures

It is generally true for East Africa that although many units of measure are of Arab – or better, Islamic – derivation, others come from the North, their source being Greek and Egyptian, and still others derive from the Indian sub-continent (Scandura 1940: 993). The role played by medieval Christian Ethiopia is uncertain.

It is also common for the same term to have different values in towns or in