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POTTERY, FEMALE IDENTITY, AND BEER IN THE NEOLITHIC OF NORTHERN AFRICA: THE IMPORTANCE OF BEER AS BOILED FOOD FOR INFANTS

ABSTRACT: I argue in this article for the importance of beer as boiled food in the early period after being weaned, this would influence the survival rate of infants since the period after weaning is the most critical. Furthermore it is suggested that cross-cultural similarities in metaphoric associations connecting female identity and beer is grounded in pan-human experiences. Our first experience as a child is the body of the woman. Experiences connected with change from breast feeding to pot-boiled food is suggested to constitute a main factor underlying the common idea of ceramic pot being like mother. The fundamental aspect of woman as a nurturer is emphasized – she produces milk and food, with her own body and activities. The metaphorical associations are grounded in experiential structures of meaning where the role of women as "the nurturer" is pronounced. Through food, social relations between people can be expressed. Not only is eating food a bodily experience loaded with meaning that may be further elaborated into standardized symbolism but the pots in which the food is cooked and served may have similar potential. A critical element occurred when beer was substituted for mother's milk in the weaning process. Beer is sweet like mother's milk and is easy to digest. It is reasonable that the nutritional advantages of introducing beer at in early stage had far-reaching consequences stimulating increased engagement in cultivating activities leading to domestication of cereals.

KEY WORDS: Early Pottery – Women – Beer – Neolithic – Ethnography

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THE PROBLEM FIELD

Gordon Child (1965) pointed out the contribution women made to the cultural developments of the Neolithic, many of which turned upon domestic activity and therefore upon the preparation of food. For the kitchen was the birthplace of many tools for grinding and crushing, methods of preservation and alcoholic fermentation, when these processes left the kitchen for specialist control they generally shifted from the hands of women to the hands of men. Childe argued that the transition from food gathering to food production probably had occurred within the kind of simple family-based division of labour that we still can observe among simple hoe-cultivators today (Childe 1965).

A characteristic feature of such societies is that women are in charge of cultivating activities as well as in manufacturing many essential tools required in food processing such as making of pottery and of storage bins, while men are in charge of hunting, iron-production, wood-works, and warfare. It is reasonable to assume that the gender-based division of labour we find among simple hoe-cultivators today grew out of the division of labour found among hunter/gatherers. Fundamental aspects of the Neolithic revolution such as domestication of cereals and making of pottery are the outcome of incremental changes brought about by women's interaction with their natural and social environment. Technical developments lead to institutional changes in division of labour and in sharing and exchange, as well as in symbolic imageries constructed around acts and objects involved in the trajectories of food items from raw nature to final consumption.

Exploring the role of gender in the complex social and symbolic 'world' in which pre-historic material was embedded is fraught with methodological difficulties. I shall focus our exploration of 'cuisine' – an empirical field where different socio-cultural aspects intersect – from activities and objects involved in the food quest to consumption of processed food-items. As I have indicated there are good reasons to assume that cuisine was embedded in a gender-based organization of activities.

Similarities and differences in forms of cuisine may fruitfully be explored by focusing on cuisine as the central point where different kinds of processes (biological/ecological, social organization, and cultural meanings) intersect in providing regular access to food to sustain human communities. Community existence depends on a certain stability in transmission of technical knowledge from generation to generation,

and on stability in the social arrangements of reciprocal obligations relating to division of labour in the work process and to sharing of work-output (processed food-items) involved in particular cuisines. A most important factor in maintaining the institutional framework of cuisine is that activities and objects are loaded with symbolic meanings. The activities and objects are not only good 'to do' practical things, they are also good 'to say' something about important existential issues. I shall argue that women as the nurturer par-excellence constitute the point where the 'doing' dimensions intersects with the 'saying' dimension of life. This point of intersection starts with the most basic event in human life namely birth and the child's complete dependence on mother's milk and her care. This is a universal experience, and this is the reason why we think that analysis of ethnographic observation may throw light on life in pre-historic societies where archaeological material indicate similarities in basic elements in the cuisine – in our cases similarities in diet (millet-based food) and similarities in tools (pottery and grinders).

Archaeological and ethnographic material give us reason to assume that there are basic similarities between the cuisine of the dry savanna areas of North Africa in the past and in the present, namely the use of cereals (first wild and later domesticated varieties). Pottery fragments from N-Africa are dated to 9400 cal BCE (see Huysecom *et al.* 2009, 2020 for further references). Pottery was used for boiling beer and gruel (Dunne *et al.* 2016). These substances have constituted the staple food in savanna regions in Africa (and parts of Asia) until recently.

The goals of the article is to highlight the importance of the beer. I argue for the importance of beer as boiled food in the early period after being weaned, this would influence the survival rate of infants since the period after weaning is the most critical. The focus in this article was to explore the social and cultural importance of gender and cuisine with an emphasis on early importance of beer in prehistory. Ethnographic observations from the Fur of western Sudan shall be taken as a kind of proto-type for cross-cultural comparison of cuisine in time and space.

Gender dimension in Fur cuisine: causal and symbolic linkages

The Fur inhabit savanna areas of western Sudan. Sorghum and millet are the main staple crops that are consumed as beer and porridge. Linguistically the Fur

language constitute a branch of the Nilo-Saharan language family.

The starting point for our analysis of Fur cuisine is the idea that its material and behavioural components have to be explored – simultaneously in two, differently constituted contexts – (Barth 1981: 3) – the material world of causes and effects, and the other the symbolic world of metaphoric associations, i. e. we look at the components as an interplay of practical instrumentality and of symbolic meanings. The most important practical tasks in Fur cuisine goes through women. Three of the most important tools in food processing – stone grinders, pottery and clay storage bins are made by women (iron cultivation tools such as hoes and axes are made by men).

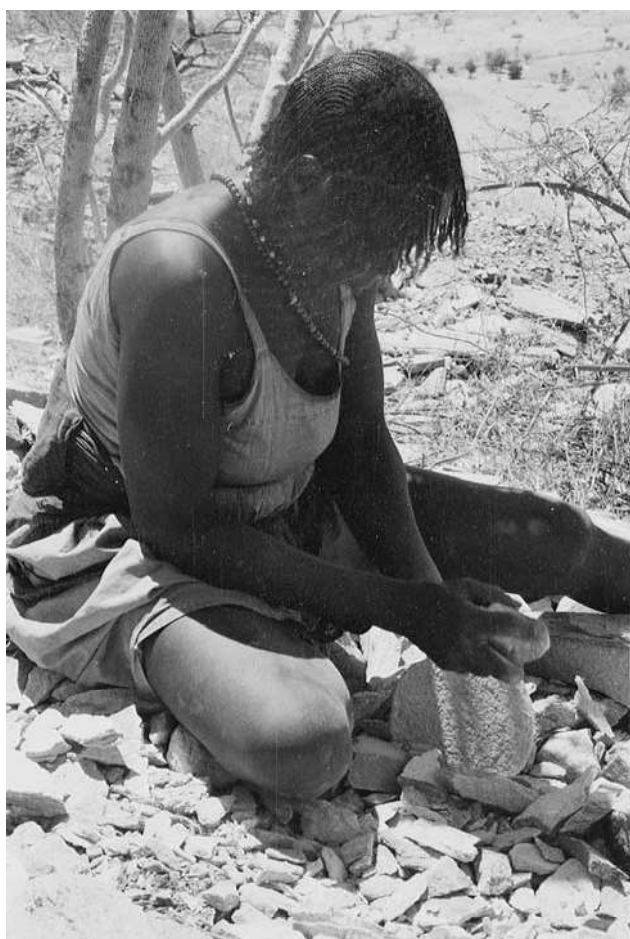


FIGURE 1: A women from the Village of Dor pecking the grinders into a rough shape at the stone quarry before bringing them back to the village at the foot of the hill (photo: Randi Haaland).

In 1978 I did fieldwork in the village of Dor in northern Darfur, where I observed that women made grinding stones. Suitable raw material is found in one area, which has fine-grained type of sandstone (Haaland 1995). Female grindstone workers have their own quarries where they cut suitable stones that are roughly shaped into grinder forms (*Figure 1*). These forms are then brought back to the village where the final shaping and pecking take place. Two grinder stones are used in grinding millet – a female activity where the grain is placed on a lower grindstone and ground to flour by moving the upper grindstone backwards and forwards over the grain. This activity and the material objects involved obviously lend itself to metaphoric associations linked to sexual intercourse with lower grindstone symbolically thought of as female and the upper grinder thought of as male (*Figure 2*).

I did three separate studies of pottery making (between 1972 and 1978) in the villages of Toumra in northern Darfur and Gidad and Sarar in southern Darfur (1978). I have published these ethnographic studies in several publications, most extensively in Haaland 1987. The pottery making in these 3 communities were more or less the same. Clay was available locally in riverbeds and was tempered with organic material such as chaff from sorghum or animal dung as well as organic rich soil from termite mounds. The potter kneads and pounds the clay on grinders to remove impurities (*Figure 3*). The first step in shaping the pot is to work the clay into a ball-like form. The potter makes a small depression in the ground where she places the clay-ball and pounds the clay ball into shape with an anvil of dry clay (*Figure 4*). She pounds the pot into shape and make the body with the same anvil, and lastly put on the neck. The pots are decorated with simple incised mostly angular designs and then left to dry in the sun, usually for 3 days. Pots are smoothed or burnished using a water-rolled pebble before being fired. The firing of the pots takes place just outside the village and is a very simple technique using a small pit in the ground into which the pots are placed. The fuel consists of grass and bark placed beneath and above the pots (*Figure 5*). From lighting the fire, it takes less than an hour to finish the process. The women when performing these tasks often brings the babies along to be breastfed (*Figure 6*).

The storage-bins used were made by women, these were made of clay and were of similar shape as the pots (*Figure 7*). Interestingly the same term, *nonoum* is in Fur language used for the granary and for the furnace



FIGURE 2: A Fur woman from the village of Gidad grinding sorghum, the lower grinder is worn quite thin from long time use and wear (photo: Randi Haaland).



FIGURE 3: A Fur woman from the village of Toumra making pots. She is pounding the clay on the broken grinder with a hammerstone to make the clay smooth. This shows the similarities in activities between pottery making and preparing food (photo: Randi Haaland).

blacksmiths use for iron smelting. Both are metaphorically linked to gender differentiation – the granary with the female family members responsible for feeding the children, the furnace with male blacksmiths who are responsible for smelting iron. The blowing of bellows during iron smelting is metaphorically associated with the sexual act with the furnace like a female being impregnated.

Archaeological material indicates that early African pottery was produced before wild cereals had been domesticated. In Darfur wild plants are still gathered when there is a crisis in food production. Anwar Magid made an ethno-botanical study of the technology and importance of gathering of wild plants in the region. He observed that 20 different species of wild food

plants were used. The most important plants were the *graminae* cereals related to the domesticated cereals the Fur cultivate today. Some plants needed quite labour-intensive treatments (often including several days of soaking in water) to make them edible. Processing and preparing these food plants depended to a large extent on what part of the plant is gathered (seeds, fruits, or root vegetable), and also on the state of the plant gathered (hard, soft, fresh, dry, bitter or sweet). These were activities practiced by women. The women of Darfur had a thorough knowledge of food plant resources and their nutritional values. Magid (1989) noted that the acquisition of the knowledge involved was gained in early childhood when girls observed and participated with their mothers in gathering activities. The wild grains were gathered in baskets as well as in pots or swept from the ground. This did not require any specialized tools. As well as harvesting, women did winnowing, threshing and storing of grains. Another female gathering activity observed by Gunnar Haaland in the Jebel Marra mountain is catching flying ants when they emerge from their underground nests before the rainy season (Figure 8).

Today Fur cuisine is dominated by the two food items, porridge and beer (Figure 9), processed from cultivated millet species. It is here we see a clear manifestation of how the gender dimension shapes the interplay of causal/practical and symbolic/meaningful aspects of Fur cuisine. The institution of the beer party (Figure 10) (*tawisa*) makes it possible to convert beer into labour (Figure 11). The *ora* category, the beer party, and the institutionalized rules of reciprocal relations between husband and wife are basic cultural features structuring the way gender affects the flow of goods and services on which the Fur cuisine is based.

The practical concern of food-provisioning is in Fur cuisine closely linked to another fundamental human concern, namely trust and social belonging. The philosopher Alasdair MacIntyre has expressed this concern as follow: "We human beings are vulnerable to many kinds of affliction and most of us are at some time afflicted by serious ills. How we cope is only in small part up to us. It is most often to others that we owe our survival, let alone our flourishing, as we encounter bodily illness, inadequate nutrition, mental defect and disturbance, human aggression and neglect" (MacIntyre 1999:1). Where legal frameworks are weakly developed such dependence is precarious and depends on trust and solidarity among fellow community members. Precariousness increases with growth of community



FIGURE 4: A potter from the village of Sarar is kneeding the clay before starting to shape the pot with the anvil of clay (photo: Randi Haaland).



FIGURE 5: The potter has made a small depression in the ground lined with straw and bark where pots are made ready to be fired, from the village of Gidad (photo: Randi Haaland).



FIGURE 6: While making pots, women will bring the babies along. Here a woman from the village of Gidad is breast feeding her baby (photo: Randi Haaland).

size. "The number of people we know personally, whom we can trust, whom we feel some emotional affinity for, is no more than 150, according to Dunbar (2010: 4). It has been 150 for as long as we have been a species. And it is 150 because our minds lack the capacity to make it any larger" (Dunbar 2010: 4). Beyond that number trust among community members has to be indoctrinated through convincing and compelling symbols. Belief in trust and solidarity is however vulnerable to doubt, and its maintenance has to be continually communicated by symbols that people experience as compelling and 'true'.

Among the Fur there is found a rich symbolic universe through which people try to understand afflictions and cope with them (Haaland 1998, 2019). This universe is constructed around a key symbol called *bora fatta* (milk white – mother's milk). It is difficult to think about a metonym more apt than mother's milk for the quality of solidarity. A rich

inventory of metaphoric expressions particularly millet flour mixed with water as well as home-brewed beer, *kira* are metaphorically associated with mother's milk and is employed on a variety of ritual occasions serving to foster the quality of solidarity in communities far larger Dunbar's number. It is assumed that the items used and the words said on ritual occasions serve to convey messages about the important issue of trust, we can try to interpret the verbal and non-verbal signs by putting them in the context of specific relationships. It appears that the material indicates that the Fur somehow use millet flour to say "things" which could have been said by the item "mother's milk". We suggest that the "things" which are said deal with the qualities of "solidarity", "love" and "sociability" in human relations. There is one social relation where the quality of "mutuality" or "solidarity" seems unquestionable and this is the mother-child relation. This relation is thus very convincing as a "model" for other relations with



FIGURE 7: A group of men at a work party to build a house. Inside the house one can see a clay granary used to store the grain. These have the same shape as pots (photo: Gunnar Haaland).

similar qualities. It does not require great imagination to understand that mother's milk is very convenient to signify the quality of such relations and that the verbal expression *bora fatta* expresses this.

The elaborate use of millet flour on ritual occasions described is assumed, to be related to the importance of the message and the need for redundancy in its communication. As a concrete item millet flour is very appropriate for saying the same "thing" as the milk a mother feeds her child. The material content of the mother-child relation will, with the growth of the child change from mother's milk (*Figure 12*) to millet beer as dominant items and to millet porridge. Mother's milk and beer/porridge are thus similar items in the sense that at different stages in a child's growth they constitute a necessary content in the mother-child relation. It is suggested that this similarity makes these items suitable for metaphorical associations.

Objectively beer is related to two other items: grain and female labour. In the process of production grains are transformed, first into flour (*uwo*) and then into *kira* (beer) and *nung* (porridge). The two items, *kira* and *nung*, are thus related to each other by being produced from the same raw material by the addition of female labour. They are also related in Fur thinking; and to sell either of them would imply an activity categorized as *ora* (shame). Millet beer and porridge are thus closely associated as an important component of family solidarity and this association makes it a convincing metaphor serving to foster belongingness and trust in groups a quality of much wider scale. Symbolic identification of female identity with millet products is also manifested in Fur terminology describing beer pots. Such pots may be referred to as mother (*eja*) and sometimes decorated with two protuberances called breasts (*nansu*).



FIGURE 8: Fur women from Jebel Marra collecting ants from underground nests, the women have the babies strapped to their backs (photo: Gunnar Haaland).

The metaphoric associations between pots and motherhood are part of a wider set of symbols fostering ideas of solidarity and trust among Fur community members. These metaphoric constructions are rooted in the experience of mother as the nurturer par excellence – first as provider of milk from her breasts and then as provider of the staple foods (porridge and beer) from her cooking pot and her beer pot. The fact that porridge and beer are served from the mother-associated pot serve to make the commensality more compelling. There is thus a close symbolic association between female identity, nurturing, food-provisioning, pottery-making and food-pots. The material content of the mother-child relation will, with the growth of the child, change from mother's milk to porridge and beer as the dominant items. These metaphoric constructions are rooted in the experience of a mother as the nurturer par excellence – first as provider of milk from her breasts and then as provider of the staple foods

(porridge, beer) from her cooking pot. In Fur cuisine women occupy a fundamental position mediating the way causal/practical and the symbolic/meaningful aspects are linked in practice and thought.

COMPARATIVE ETHNOGRAPHIC REFLECTIONS

Although savanna communities exhibit variations in symbolic complexes constructed around women's technical role in food production it is striking to see that there are so many cross-cultural similarities.

Herbert has argued that cooking pots are strongly related to women and motherhood. Use of pottery takes place in a female dominated hearth setting – a domain that has a broad potential to symbolize important events and relationships in human life – a potential that is frequently realized in conceptualizations of pottery making as a transformation analogous to gestation. Thus, the



FIGURE 9: Women making beer. In the front large pots for preparing the beer. Note the group of women grinding of sorghum to be used in production of beer (photo: Gunnar Haaland).

symbolic association between pots and the body of the women and her nurturing roles, such as breast-feeding and cooking, is close at hand (Herbert 1993: 21).

Comparative ethnography yields further evidence of symbolic uses of items connected with sorghum and millets. An example is provided by Karp (1980) in his study of the Iteso of Kenya where beer is both food (a nourishing gruel) and a ritual substance. Drinking beer is a daily activity for most people and is a pervasive feature of social life. Among the Iteso, mobilization of communal labour in the cultivation process is based on the beer- work party. Willingness to participate in drinking beer is a fundamental part of the definition of the social person. In addition to work parties, beer drinking is an integral component in life-cycle rituals like funerals and birth ceremonies. Consumption of beer generally takes place among a group of people sitting round a big pot and sipping through a straw. Similar ways of consumption are wide-

spread in East Africa. Elaborate rules specify how the straw is to be held and how one should suck the beer. Here there is also a close association of beer with mother's milk. The first name given to a child is called the sucking name. This is related to two kinds of sucking: sucking at its mother's breast and then the sucking of beer off the finger that the grandmother offers during the naming ceremony. The difference between the two kinds of sucking, as Karp (1980) sees it, is that the child sucks at its mother's breast before it accepts a name, while the sucking of beer is indicative of accepting its name. The capacity to drink beer is thus seen as a prerequisite for the capacity to engage in social life. Joint consumption of beer symbolically expresses and fosters communal solidarity. This and the symbolic elaborations of objects and activities related to cuisine is a familiar theme in African ethnography – it serves to bind people together by fostering hospitality and communality in everyday life.



Figure 10: A group of Fur men drinking beer at a work party to build a house (photo: Gunnar Haaland).

Similar symbolism associating mother's milk and beer is also found in sorghum cultivating communities outside Africa. Among the Magar (a Tibeto-Burmese speaking group in Nepal) millet beer is symbolically elaborated in several rituals. It is vital during rituals for the ancestors; during ancestral worship the beer has to be prepared 3 months before the ceremonies. This beer is called *nau dhara khane* (nine fountain taps) which is seen as a symbol of mother's milk *das dhara* (ten fountains) this emphasizes the mother's contribution to her children by the saying "I fed you ten fountains of milk". Furthermore, much of millet mush as well as beer are used during these ancestor rituals. During the night before the ceremonies, the sister's son has to prepare the beer during the night and is an important source for symbolic elaborations. It cannot be touched by women and is kept in a copper pot shaped like a woman's vagina called *Khagu* (Khattri 1999). Millet

beer is prepared in special pots and used in ritual greetings, which are an important part of initiation ceremonies especially in exchanges taking place during marriage ceremonies, when the groom brings it to the bride's family and the bride brings it to the groom's house. The pot and the beer are used symbolically in marriage ceremonies, at the birth ceremonies, and at death rituals.

CONTINUITIES IN TIME

The early prominence of beer in our culture-history was already discussed by Katz and Voigt (1986). They suggest that the grain ground for eating was probably first made into a kind of gruel produced by adding water to the ground paste. This might be how grain was first widely used as food. Experimentation with the cultural



FIGURE 11: Women weeding sorghum, they are part of a work party. Note that the women have babies strapped to the back (photo: Gunnar Haaland).

staple as gruel was probably what led to the making of beer. Katz and Voigt have a detailed discussion of the steps involved in preparing beer. They suggest that the use of beer could go back to the early phase of manipulation of grain during the Natufian phase. They argued that beer enhanced the original nutritional quality of the cereal to a level almost comparable with that of meat. Most importantly they suggested fermented food, beer would have been sweet and easier to digest for children when first weaned from mothers milk.

Recent work in the Near East from the Raqefet site in Israel suggests that making of beer dates back 13,000 years ago (Liu *et al.* 2018). Bedrock mortars was used for pounding and cooking plant-foods, including brewing wheat/barley-based beer which likely

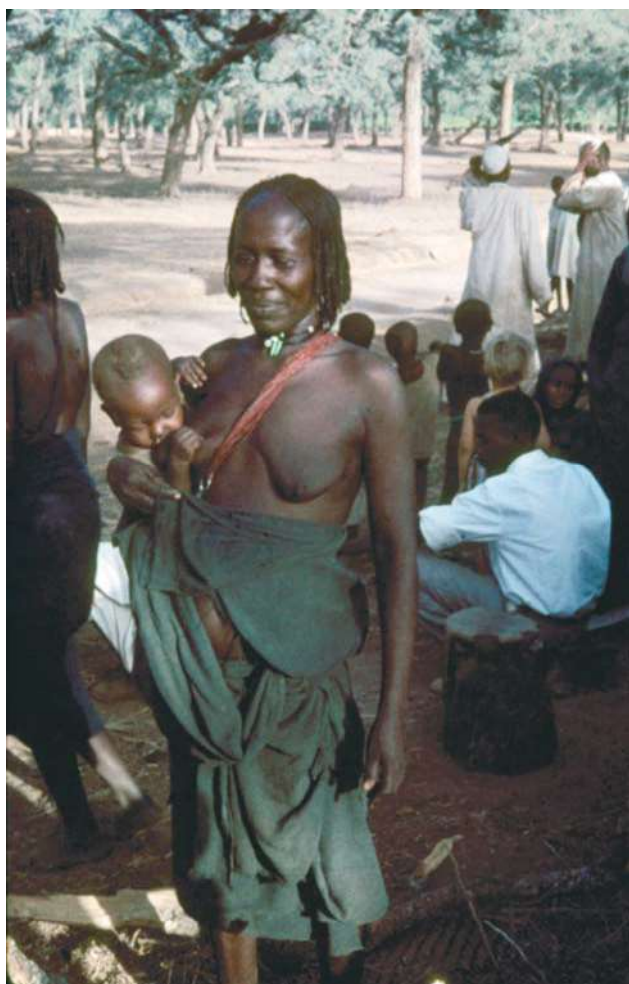


FIGURE 12: A woman from the village of Zalingei breast feeding her baby (photo: Randi Haaland).

served in ritual feasts ca. 13,000 years ago. *To quote the authors* "The Natufians at Raqefet Cave collected locally available plants, stored malted seeds, and made beer as a part of their mortuary rituals to venerate the dead and/or to enhance group cohesion among the living" (Liu *et al.* 2018: 792). They argued that fermented and alcoholic beverages played a pivotal role in feastings and social events in past agricultural communities. Interestingly these innovations of beer making predated the appearance of domesticated cereals and pottery making by several millennia in the Near East.

The idea of the importance of beer in ritual feasting has been the prevailing hypothesis among archaeologists for the last decades (Hayden 2001, 2011, Shane 2013, Bottero 2004, Edwards 2004, Dietler 1990, 2006). In this discussion it appears that men are seen as important in feasting activities. The female perspective emphasising the importance of soft boiled food such as beer for infants especially after being weaned has not been paid much attention to.

One of the first archaeologists in 1953 to suggest the importance of beer for the domestication of cereals was Robert Braidwood *et al.* in 1953. He organized a conference in Chicago in 1953 around the topic "thirst for beer could have been the stimulus behind cereal domestication". Yet over the years less emphasis was put on the role of beer and more on the importance of bread during the early phase of transition to cereal cultivation.

EARLY POTTERY AND BEER IN AFRICA

The early making of beer in Africa was probably related with the first crafting of pottery around 9400 cal BCE with the boiling of soft food of which beer was an important component. Thus, the African beer tradition was different from the Near East where it was advanced without pottery, using stone bowls and stone mortars grinders. Katz & Voigt (1986) have a detailed discussion of the steps involved in preparing beer without pottery. It is crucial here to understand how the process of fermentation could have started since this usually requires containers for heating. This seems to be a puzzle since beer in the Near East was apparently produced during the Pre-Pottery period i.e. no pottery. However, Katz & Voigt (1986) claim that heating was not a problem as day-time temperatures in the Near East can reach 120 degrees Fahrenheit or more. Even in the winter, they suggest, putting the mixture in a sunny spot would give enough heat for the yeast to

work during the day, and during the night it might have been placed near the hearth. Containers would however have been needed to keep the beer and the authors suggest that skin bags, wooden vessels or baskets could have been used. Many baskets recovered from this period also had the inside covered with bitumen (Noy 1989).

The making of pottery in the Near East was two thousand years later (van der Plicht *et al.* 2011, Niewenhuyse *et al.* 2010) i.e. 7000 BCE. In Haaland 2007 I discussed the later dates of pottery and the interesting difference in food ways between the two regions. The focus in Africa on pottery and porridge-beer and emphasis on oven and bread-beer in the Near East (Haaland 2007, 2012, 2017). The early making of beer in Africa was probably closely interlinked with the first crafting of pottery. The African ceramic tradition developed within a hunting-gathering kind of society in the warm and wet early Holocene climatic phase in the Sahara and Sahel. At that time, the savannah vegetation zone appears to have extended up to 500 km further to the north. The area, which today is desert, would then have supported dry savannah type vegetation in most areas, generally what we today think of as typical for the Sahel zone of sub-Saharan Africa, further south (Kuper, Kropelin 2006). The wet climate produced a vast tropical grassland which spread across the former desert; grasses and edible grains became available. Huysecom *et al.* (2009) has argued that the early pottery from Mali is associated with the boiling of wild cereal grain to make it more digestible. This has been further substantiated by Dunne *et al.* (2016) who published extensive evidence that plants were processed in pottery vessels at least 10 000 years ago. Tools used for processing food such as grinders are recovered together with pottery from sites such as Takarkori and Uan Afuda in the Libyan Sahara, dated to 8200–6400 BCE. The authors suggest that Early Holocene hunter-gatherers exploited a wide range of plant resources (Biagetti, di Lernia 2013). This study shows the earliest direct evidence for plant processing in pottery world-wide. The ceramic research furthermore pointed to the prevalence of plant over animal lipid residues, recovered from the vessels consisted predominantly of plant material, emphasizing the importance of a wide variety of wild plants, such as cereals in the diet of these prehistoric people. According to Dunne *et al.* (2016) the findings provide clear evidence for extensive early processing of plant products in pottery vessels, likely to have been invented in this region for this purpose. It points to the higher

frequency of plant product processing than animal products which is quite unique in prehistoric pottery assemblages. From a temporal perspective the results indicate prolonged processing of a broad range of plant material within vessels, dating from the Early Holocene. This is contemporaneous with the introduction of pottery in the region. This was probably the beginning of the long history of beer/porridge consumption.

Archaeological and ethnographic material give us reason to assume that there are basic similarities between the cuisine of the dry savanna areas of North Africa in the past and in the present, namely the use of cereals (first wild and later domesticated varieties).



FIGURE 13: Caliciform beaker from the Neolithic site Kadero (photo: M. Jordezka, courtesy of Poznan Archaeological Museum collection).

Rowlands and Fuller (2018) have an extensive discussion of the importance of the beer-porridge tradition which developed in Northern Africa within an early pottery technology. They focused on the importance of grinding in what they labelled "a boiling-grinding tradition". The grinding aspect has not been given much attention by archaeologists in earlier work. Similar to McGovern (2009), they saw the development of a boiling and grinding food technology based on wild grains, to have originated as part of an indigenous epi-Paleolithic hunter-gatherer regime from the 10th to 9th millennia BCE in the northern savannas/Sahel. They proposed that archaeological and ethnographical patterns developed which could be seen as part of long-term stable cultural boundaries of the materiality of cuisine, probably extending over millennia. They suggested that the cultural technologies of food systems could also have been part of much larger cosmologies.

In the development of the early food systems the authors make an interesting distinction between different types of eating. In particular, distinctions are made between the swallowing of soft, ground food and eating that involves chewing or tearing food. They look at different African languages and realize that there are different words for the special way of eating. The act of ingesting or swallowing food in much of Africa is, as they see it more complicated than it might seem, there are distinctions made between two types of eating, two types of masticating and swallowing food, and two images (at least) of the parts of the body involved. Most African languages and all the Bantu ones make a lexical distinction between the swallowing of soft, ground food and eating that involves chewing or tearing food. In Mankon and the 'Ngemba speaking' (Western Bantu borderland) region of the Grassfields in Cameroon, for example, the two words are *dzie* and *kfuru* (Nyamnjoh, Rowlands 2013). The emotional connotations are quite different. *Dzie* is 'good eating' and focuses on ground millet. It implies a sense of well-being gained from sharing and eating food together, good words being said, and occurs at events promoting social harmony and the resolution of conflict. *Kfuru*, on the contrary, is perceived as potentially harmful and dangerous. The focus is on the teeth and the act of tearing apart, for instance, when people eat meat, or show their teeth during acts of extravagant consumption (Rowlands, Fuller 2018: 182).

Nyamnjoh and Rowlands here draws attention to the similar role of soft food in creating solidarity as I emphasized for beer and porridge in the ethnographic material from the Fur. In my presentation of practices

involved in food production and processing I tried to relate them to social mechanisms mediating the practical transformations.

The importance of wild sorghum for early beer making in Africa has also been proposed by McGovern (2009). He suggested that wild species would have been abundant across the moister Sahara and Sahel in the early Holocene hence sorghum beer probably spread rapidly across the Sahel from east to west after the 6th millennium (McGovern 2009). In a comparative study of beer making (*merissa*) in Sudan, Dirar has described a very wide variety of beer used, as many as 50 different types. Beer is here often referred to as liquid porridge. He suggests that this indicates a long history of beer making. Dirar maintains much like McGovern that beer spread from east to the rest of Africa however from Sudan (Dirar 1993). Residue analyses of Neolithic pottery from the Blue Nile appears to provide some support for their use in brewing beer (Fernandez, Tresseras 2000). The beautiful caliciform beakers (*Figure 13*) recovered from many of the so-called Khartoum Neolithic sites dated to the 5th millennium BCE were probably used for beer consumption by the elite (Kryzaniak 2002, Reynold 2002, Haaland 2013, 2017). Consumption of beer during ceremonial feasts and sacrifices in the later Kingdom of Kush is fully evident. Several sources have provided indications of the use of beer by the Kushites. Evidence for the large-scale consumption of beer increased during the Kerma period 4000 BCE, but is even more apparent during the Meroitic period, when it is manifested in a number of massive deposits of broken jars, as well as smaller bowls and cups, on hilltop locations in the Meroe area (Lenoble 1995). Masses of sherd material, sometimes associated with burned animal bones, probably accumulated over an extended period.

The importance of beer going back in time is also attested by the work by Armelagos and his group in Sudanese Nubia dated to 350–550 AD. Armelagos (2010) has argued that consumption of beer has important health benefits because it contained antibiotic tetracycline. Beer was made from grain kept in mud stores where it had been contaminated by the bacteria *streptomyces*, that produces tetracycline. Armelagos found that 90 % of the human bones he studied showed traces of tetracycline even in 2-year old children. He believes that tetracycline protected the Nubians from bone infections, since all the bones were infection free. During the Meroitic period there is rich evidence for the importance of Sorghum beer the

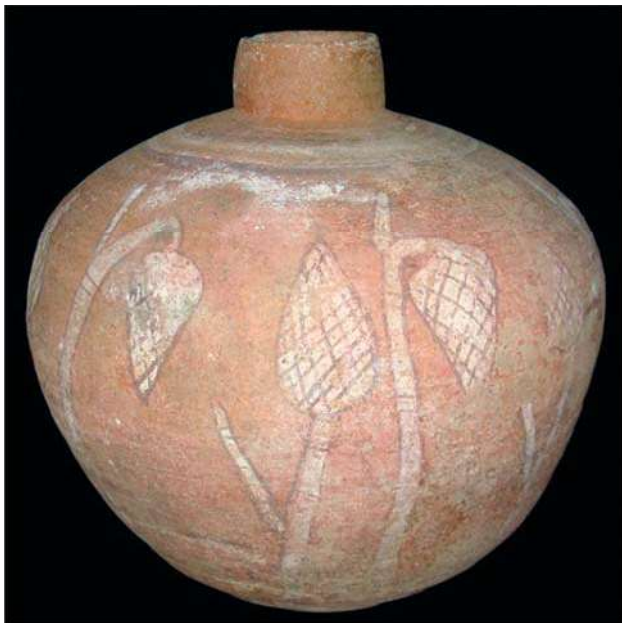


FIGURE 14: Beer jars decorated with heads of sorghum deposited as grave goods. Recovered from Meroitic graves in Berber, from the Middle Nile Region (photo: Mahmoud Suliman Bashir).

clearest representation of beer is a graffito dated to the Meroitic period at Musawwarat es-Sufra, depicting two men drinking beer from a jar through a straw (Edwards 1996). Among recovered pottery vessels from Meroitic graves at Berber in the Middle Nile Region several beer jars were decorated with patterns of sorghum heads (Figure 14) (Bashir 2013). The Greek Geographer Strabo in the late 1st century BCE wrote about the life of the people from the island of Meroe, he described the importance of beer made from the local millets (Shinnie 1967).

CONCLUSION

The focus in this article was to explore the social and cultural importance of gender and cuisine with an emphasis on early importance of beer in prehistory. An ethnographic case study of the Fur of western Sudan combined with a comparative perspective constituted a major source for the hypothesis formulation- not in the sense that ethnographic cases could serve as analogies for what the situation might have been in prehistoric communities, but because present millet cultivators in savanna regions had to cope with similar

ecological conditions as early cultivators of the past, and that this might give us an understanding of the socio-cultural evolutionary processes leading from simple communities of the past to the more complex subsistence cultivators of the present.

A particular concern has been with the connection between the techno-practical tasks of food preparation and symbolic imagery. An important part of the argument is that this connection is shaped by experiences harvested in early mother-child interactions particularly on the role of beer in weaning practices. The cross-cultural similarities in metaphoric associations connecting female identity and beer is seen as grounded in pan-human experiences. Our first experience as a child is the body of the woman. Experiences connected with change from breast feeding (Figure 12) to pot-boiled food is seen to constitute a main factor underlying the common idea of ceramic pot being like mother. The fundamental aspect of woman as a nurturer is emphasized – she produces milk and food, with her own body and activities. The metaphorical associations are grounded in experiential structures of meaning where the role of women as "the nurturer" is pronounced. Through food, social relations between people can be expressed. Not only is eating food a bodily experience loaded with meaning that may be further elaborated into standardized symbolism but the pots in which the food is cooked and served may have similar potential. A critical element occurred when beer was substituted for mother's milk in the weaning process. Beer is sweet like mother's milk and is easy to digest. It is reasonable that the nutritional advantages of introducing beer at in early stage had far-reaching consequences stimulating increased engagement in cultivating activities leading to domestication of cereals (Haaland 1987, Haaland, Haaland 2013) and demographic growth leading to dispersal of beer-drinking populations.

I have tried to formulate provisional hypotheses about continuities between observable forms of behaviour today and unobservable forms of behaviour connected with the material objects that pre-historic people left behind. These continuities I have not deduced from the observable forms themselves, but pondering on processes that may have generated such similarities (and dissimilarities) in time and space. This is assumed had its basis in the most fundamental principle of social organization among *Homo Sapiens*, namely gender-based division of labour. The focus has been on the female part in this division because of

women's role in biological reproduction and the responsibilities this implied in child nourishing and care. Women is seen as the point where survival dependent processes intersect, and it is as occupants of this position that they over time make incremental changes leading to the dramatic technological breakthrough we call the Neolithic Revolution.

As a final point I will draw attention to possible ways in which symbolic imagery developed in Prehistoric-Neolithic communities may have been further developed and elaborated with the growth of the complex and large-scale societies we call civilization. In one of the oldest hymns we know from written sources is the hymn to the Sumerian beer goddess Ninkasi dated to the 3rd millennium BCE. Interestingly the Goddess was also the goddess of procreation. Ninkasi was both the brewer of beer and beer itself (Civil 1964).

REFERENCES

- ARMELAGOS G. J., 2010: *Journal of Anthropological Research* 662: 161–186.
- BARTH F., 1981: Introduction. *Process and form in social life. Selected essays of Fredrik Barth* 1: 1–13.
- BASHIR M. S., 2013: A third season of rescue excavations in the Meroitic cemetery at Berber, October 2012: preliminary report. *Sudan and Nubia* 17: 90–100.
- BIAGETTI S., di LERNIA S., 2013: Holocene deposits of Saharan rock shelters: the case of Takarkori and other sites from the Tadrart Acacus Mountains (Southwest Libya). *African Archaeological Review* 30: 305–328. <https://doi.org/10.1007/s10437-013-9138-z>
- BOTTERO J., 2004: *The Oldest Cuisine in the World*. Chicago.
- BRAIDWOOD R. J., JONATHAN N., SAUER D., HELBÆK H., MANGELSDORF P., CUTLER H. C., COON C. S., LINTON R., STEWARD J., OPPENHEIM L. O., 1953: Symposium: did man once live by beer alone? *American Anthropologist* 55,4: 515–26.
- CHILDE G. V., 1965: *Man Makes Himself*. 4th edition. Fontana Library.
- CIVIL M., 1964: A hymn to the beer Goddess and a drinking song. *Studies Presented to Leo Oppenheim*. Chicago. Oriental Institute: 67–69.
- DIETLER M., 2006: Alcohol: anthropological/archaeological perspectives. *Annual Review of Anthropology* 35: 229–249.
- DIRAR H. A., 1993: *The indigenous Fermented Food of Sudan: A study of African Food and Nutrition*. Wallingford.
- DUNBAR R., 2010: *How many Friends does One Person Need?* Cambridge, Massachussets.
- DUNNE J., MERCURI A.M., EVERSHED P.R., BRUNI S., di LERNIA S., 2016: Earliest direct evidence of plant processing in prehistoric Sahara pottery. *Nature Plants* 3: 16194 (2017). <https://doi.org/10.1038/nplants.2016.194>
- EDWARDS D. N., 1996: Sorghum, beer and Kushite society. *Norwegian Archaeological Review* 29: 65–77.
- FERNANDEZ V., TRESSERAS J. J., 2000: New data on intensive plant processing and beer brewing in the Mesolithic and Neolithic periods of Central Sudan, *Nyame Akuma* 54: 42.
- FIREW G., 2009: *An ethnoarchaeological approach on understanding the origin of Agriculture in Ethiopia*. M.A. Thesis, University of Bergen, Bergen.
- HAALAND G., 1998: Beer, blood and mother's milk: symbolic context of economic behaviour in Fur society. *Sudan Notes & Records*: 53–76.
- HAALAND G., 2019: The Language of Thrust and Betrayal. In: K. Wu., R. P. Weller (Eds.): *It happens among People. Resonances and Extensions of the Work of Fredrik Barth*. Pp. 121–140. Berghahn. Oxford. <https://doi.org/10.2307/j.ctv1dwqlgl>
- HAALAND R., 1987: *Socio-Economic Differentiation in the Neolithic Sudan*. British Archaeological Reports 350. Oxford.
- HAALAND R., 2007: Porridge and Pot, Bread and Oven: Food ways and Symbolism in Africa and the Near East from the Neolithic to the Present. *Cambridge Archaeological Journal* 17: 167–183.
- HAALAND R., 2012: Changing food ways as indicators of emerging complexity in Sudanese Nubia: from Neolithic agropastoralists to the Meroitic civilization. *Azania* 4: 327–342.
- HAALAND R., 2017: Kirwan Memorial Lecture. Nile Valley archaeology and Darfur ethnography: the impact of women on cultural evolution. A personal reflection. *Sudan & Nubia* 1–13.
- HAALAND R., HAALAND G., 2013: Early Farming Societies along the Nile. In P. Mitchell, P. J. Lane (Eds.): *Oxford Handbook of African Archaeology*. Pp. 537–546. Oxford. Oxford University Press.
- HAYDEN B., 2001: Socio-political Organization in the Natufian: A View from the Northwest. In: D. Delage (Ed.): *The Last Hunter-Gatherer Societies in the Near East*. Pp. 279–308. Oxford: BAR International Series.
- HAYDEN B., 2011: Feasting and social dynamics in the Epipaleolithic of the Fertile Crescent. In: A. J. Gonzalo, S. Monton-Subias, M. S. Romero (Eds.): *Guess who's coming to dinner: feasting rituals in the prehistoric societies of Europe and the Near East*. Pp. 30–63. Oxbow. Oxford.
- HERBERT E. W., 1993: *Iron, Gender, and Power. Rituals of Transformation in African Societies*. Bloomington.
- HUYSECOM E., 2020: The First Emergence of Ceramic Production in Africa. *Oxford Research Encyclopedia* 1–14. Oxford.
- HUYSECOM E., RASSE M., LESPEZ L., NEUMANN K., FAHMY A., BALLOUCHE A., OZAINNE S., MAGGETTI M., TRIBOLO CH., SORIANO S., 2009: The emergence of pottery in Africa during the tenth millennium cal BC: new evidence from Ounjoungou (Mali). *Antiquity* 83, 322: 905–917. DOI: 10.1017/s0003598x00099245
- KARP I., 1980: Beer drinking and social experience in an African society: an essay in formal sociology. In: I. Karp, C. S. Bird (Eds.): *Explorations in African Systems of Thought*. Pp. 83–119. I. Bloomington (IN): Indiana University Press.

- KATZ S. H., VOIGT M. M., 1986: Bread and beer: the early use of cereals in the human diet. *Expedition* 28: 3–34.
- KHATTRI M., 1999: *Sacrificial Places: An ethnoarchaeological study of the ritual landscape from Argal VDJ.C, Western Nepal*. Master Thesis, University of Bergen. Bergen.
- KRYZANIAK L., 2000: Kadero. In: D. A. Welsby, J. R. Anderson (Eds.): *Sudan Ancient Treasures*. Pp. 49–53. London.
- KUPER R., KROPELIN S., 2006: Climate-controlled Holocene occupation in the Sahara: motor of Africa's evolution. *Science* 313: 803–807. DOI: 10.1126/science.1130989
- LIU L., WANG J., ROSENBERG D., ZHAO H., LENGYEL G., NADEL D., 2018: Fermented beverage and food storage in 13,000 y-old stone mortars at Raqefet Cave, Israel: Investigating Natufian ritual feasting. *Journal of Archaeological Science: Reports* 21: 783–793.
<https://doi.org/10.1016/j.jasrep.2018.08.008>
- MAGID A. M., 1989: *Plant Domestication in the Middle Nile Basin*. An Archaeo-ethnobotanical case study. BAR Int. Ser. 523. Oxford.
- MACINTYRE A., 1999: *Dependent Rational Animals: Why Human Beings Need the Virtues*. Chicago.
- NIEUWENHUYSE O. P., AKKERMANS P. M. M. G., van der PLICHT J., 2010: Not so coarse, nor always plain. The earliest pottery in Syria. *Antiquity* 84, 323: 71–82.
DOI: <https://doi.org/10.1017/S0003598X0009774>
- NOY T., 1989: Gilgal 1, a pre-pottery Neolithic site, Israel. *Paleorient* 15: 11–18.
- McGOVERN R., 2009: *Uncorking the Past*. University of California Press. Berkeley.
- NYAMNJOB H., ROWLANDS M., 2013: Do you eat Achu here? Nurturing as a way of life in a Cameroon Diaspora. *Critical African Studies* 5,3: 140–152.
<https://doi.org/10.1080/21681392.2013.837703>
- REINOLD J., 2002: Kadruka and the Neolithic of the Northern Dongola Reach. *Sudan & Nubia* 5: 4–10.
- ROWLANDS, M., D. Q. FULLER, 2018: Deconstructing Civilisation: A Neolithic alternative. In: K. Kristiansen, T. Lindquist, J. Myrdal (Eds.): *Trade and Civilisation. Economic Networks and Cultural ties, from Prehistory to the Early Modern Era*. Pp. 72–95. Cambridge University Press. Cambridge.
- SHINNIE P. L., 1967: *Meroe. A civilization of the Sudan*. Thames Hudson. London.
- SKIBO J. M., SCHIFFER M. B., 1995: The Clay Cooking Pot. An exploration of women's technology. In: J. M. Skibo, W. H. Walker, A. E. Nielsen (Eds.): *Expanding Archaeology*. Pp. 80–89. Salt Lake City.
- VAN DER PLICHT J., AKKERMANS P. M. M. G., NIEUWENHUYSE O., KANEDA A., RUSSELL A., 2011: Tell Sabi Ayad Syria. Radiocarbon Chronology, Cultural Change and the 8.2. ka Event. *Radiocarbon* 53,2: 229–243.
- WRIGHT R. P., 1991: Women's labour and pottery production in prehistory. In J. A. Gero, W. M. Conkey (Eds.): *Engendering Archaeology: Women in Prehistory*. Pp. 194–223. Blackwell.

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