Style, Symboling, and Interaction in Middle Stone Age Societies

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ABSTRACT

Three aspects of the African Middle Stone Age (MSA) archaeological record - the use of symbolic resources, long-distance transfer of raw materials, and so-called ‘regional traditions’ in projectile point form - are examined within the context of the modern human behaviour debate. It is argued that projectile points in the MSA may have manifested active (but not emblemic) style, and may have once symbolized social relations between obligated individuals. Archaeological evidence for notational items, personal ornaments, and ochre processing attest to the manipulation of symbolic resources by MSA hominids, and raw material sourcing studies suggest they were involved in regional exchange networks. Together this evidence supports a scenario in which projectile points are integrated into a communal system of exchange and may explain both the homogeneity of form across space and time, and the heterogeneity of form observed across the continent. This perspective implies an early origin for behavioral modernity at least 80 kya.

Introduction

The coeval appearance of traits characteristic of behavioral modernity in the European Upper Palaeolithic, including: microlithic technologies; composite tools; symbolic thought; art; and broad range resource exploitation supports a “human revolution” model for the origin of behavioral modernity about 50 kya (Bar-Yosef 2002; Clark 1992; Klein 1994; Klein 1995; 2000; 2008; Mellars and Stringer 1989). However, many traits that have been traditionally attributed only to Upper Palaeolithic hominids are known to have greater time depth in Africa (ie. Assefa et al. 2008; Barham 2000; Bouzougar et al. 2007; Brown et al. 2009; d’Errico et al. 2001; d’Errico et al. 2005; d’Errico et al. 2008; Faith 2008; Henshilwood et al. 2004; Henshilwood et al. 2009; Henshilwood and Marean 2003; Mackay and Welz 2008; Marean and Assefa 2005; Marean et al. 2007; Marean et al. 2004; McBrearty and Brooks 2000; Vanhaeren 2005; Willoughby 2007). The Middle Stone Age record may suggest a gradual development for modern human behavior beginning more than 250 kya,
during which time geographic and temporal distance separates the first appearance of each trait characteristic of behavioral modernity (McBrearty and Brooks 2000). Alternatively, modern human behavior may be traced to the origins of externally stored symbols such as incised objects and personal ornaments, which begin to appear in the African record 80 kya (Bouzouggar et al. 2007; d'Errico et al. 2001; d'Errico et al. 2005; d'Errico et al. 2008; Henshilwood et al. 2004; Henshilwood et al. 2009; Henshilwood and Marean 2003; Vanhaeren 2005; Vanhaeren et al. 2006). As archaeological research in the African Middle Stone Age (MSA) accumulates, so does the evidence against the ‘human revolution’ model (for reviews on the subject see Bar-Yosef 2002; Henshilwood and Marean 2003; Marean and Assefa 2005; McBrearty and Brooks 2000; Willoughby 2007).

Part of the argument for an early origin of modern human behaviour involves the variation and distribution of projectile point forms across Africa, (Clark 1982; 1992; Foley and Lahr 2003; McBrearty and Brooks 2000). The argument is characterized succinctly as “the diversification of MSA toolkits and the varying proportions of different artefact classes at different sites no doubt reflect regional traditions as well as different extractive activities. Points comprise the single functionally equivalent class of artefacts that best reflects regional differences and signals the presence of regional styles” (McBrearty and Brooks 2000: 498). For example, the Howiesons Poort industry reflects a unique technological adaptation and has a limited distribution to South Africa. The Stillbay as defined by Goodwin and Van Riet Lowe (1929) is an entity characterized by the presence of long, thin “willow leaf” bifacial points, predates the Howiesons Poort industry (Jacobs et al. 2008; Wadley 2007), and appears to be limited to the coastal regions of South Africa. Elongated points on blades with peripheral trimming characterize the Pietersburg industry of the Gauteng, South Africa (Clark 1982). In Northern Africa, the Aterian with its tanged points has a wide but limited distribution. The Lupemban of Central Africa has unique finely made lanceolate points, while East African MSA assemblages contain mainly smaller foliates and triangular points. Broad, short triangular points characterize the Bambata industry of Zambia, Zimbabwe, Namibia and Botswana.

Researchers do not agree on how to interpret this variation. Clark (1992:204) described the regional assemblages as “ecologically adapted toolkits”, emphasizing the effect of local raw materials on lithic characteristics. Wadley (2003:249) uses Wynn’s (1996) definition of style – the repeated patterning that is geographically and chronologically restricted – to argue that lithic assemblage variability can reflect active style, in the sense that stone tools can act as indices of social identity, but emphasizes the tempo of technological change. Wadley is hesitant to interpret point form variation prior to 40 kya as conclusive evidence for time-restricted stylistic patterning akin to that observed in modern human populations (Wadley 2001; 2003; 2007:687). Foley and Lahr (2003:119-121)
suggest that the variation in Mode 3 (MSA) assemblages is approaching what we would expect for modern human behavior, building on the large-scale variation observed for the Earlier Stone Age, but not as developed as that observed in Mode 4/5 (Later Stone Age) industries. The MSA reflects local styles, but evidence for ethnic marking is associated with the shift to Mode 4/5 technologies (Foley and Lahr 2003:121).

The spatial and temporal diversity in MSA point form receives superficial attention in most reviews about the MSA; however, palaeoarchaeologists have different criteria for determining what degree of spatial and temporal diversity represents “modern” behavior. The observation that there is variation in point forms across space and time is inadequate without explanation. Why are “regional traditions” necessarily modern? Why is variation in the MSA different than the variation we see in earlier industries? What exactly justifies the argument that this patterning contributes to the evidence for behavioural modernity in Africa? What are the criteria for identifying “modern” diversity?

This paper examines the concept of style, the Middle Stone Age, and the significance of projectile point form in contributing to our understanding of interaction among Middle Stone Age hominids. It is argued that point form variation alone says little, but together with the evidence for symboling and long-distance interaction, the archaeological record of the MSA documents a complex network of hunter-gatherer groups that actively mediated social relationships with lithic and other forms of material culture.

A Theory of Style for Stone Age Society

Style as Information Exchange

Wobst (1977:321) argued that style had a function; defining style as “that formal variability in material culture that can be related to the participation of artifacts in processes of information exchange”. This approach is sometimes contrasted with the traditional approach to style, the so-called ‘social interaction’ theory, which rests on the implicit assumptions that style is a passively learned trait, that style reflects traditional norms about the proper appearance of an artifact, and that similarities in style reflect cooperating individuals who share norms (Braun and Plog 1982; Carr 1995; Wobst 1977). In contrast, style as information exchange is used actively, reflects intentioned choices to communicate particular messages at particular times, and differences in style are used to communicate messages about group affiliation and identity.

For Wobst (1977), style served to communicate simple messages. An example presented by Wobst addresses Yugoslavian males and their traditional dress. Wobst found that headdresses, which are highly visible from a distance, signalled affiliation to the largest social group with which the individual identified
(ie. Albanian-speakers, Vlach herders, Serbs). Other less conspicuous items of dress, such as pants, shirts, and decorative features signalled group-affiliation at smaller scales (e.g., sub-region, valley, village), the argument being that the visibility of a message correlated with intended target group. Large conspicuous aspects of style communicate to more socially distant individuals, while more subtle aspects of style communicate to more restricted social units. Stylistic messaging, however, is not efficient at the scale of the immediate household or the network of close friends and relatives where there is no need to display visual culture (Wobst 1977). Messages are knowable through other means such as language, tradition, and trust.

Wobst’s approach to style was highly influential. It laid down a solid foundation for the approaches to style that followed, but was neither above nor escaped criticism. Later approaches to style reveal the importance it plays in communication at all scales of interaction, including with oneself, and that passive style may also have a role in the design of artifacts (David and Kramer 2001).

**Projectile Point Form and the Kalahari San**

Building on the theoretical foundation laid down by Wobst, Weissner (1983) explicated two different roles for active style: **emblemic** style, the formal variation that transmits information about conscious affiliation or identity and **assertive** style, the personally based formal variation that carries information supporting individual identity. In the analysis of Kalahari projectile points, Weissner (1983) attempted to demonstrate the use of both emblemic and assertive style by Kalahari groups. Arrows usually have a short use-life and are quickly made so would not normally be good candidates for emblemic style, but, because projectiles are provided to successful hunters in exchange for claim on the meat (Lee 1979; Marshall 1976; Yellen 1977) and are important objects in *hxaro* gift-giving (Marshall 1976), they have high visibility in Kalahari hunter-gatherer society.

Weissner found marked differences in shape, size, and decorative features occurring between !Kung San, !Xo San, and G/wi San projectile points. These features could be used by members of each linguistic group to determine whether arrows came from members of their own group who hold similar values, or from members of a foreign group (Weissner 1983). Informants said that they would be concerned if they found an arrow embedded in a dead animal in their area that was different from what members of their own group manufacture (Weissner 1983). Thus, according to Weissner, projectile form carried a message about group affiliation and reflected emblemic style.

**Assertive** style, or the personally based formal variation that carries information supporting individual identity, is also present in Kalahari projectile
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points in the form of intra-group differences in shape and decorative features (Weissner 1983). Personal distinction may play a role in identifying and recognizing the arrow maker and owner, given the importance of arrow ownership in meat distribution and the act of hxaro gift exchange.

The conclusions presented by Weissner were questioned by Sacket (1982; 1985), who had been developing another approach to style based on his experience with lithic material in the Upper Palaeolithic. Sacket (1982; 1985) emphasized isochrestic style, referring to the choices made between variants that are ‘equivalent in use’. In this view, the decisions of individuals are shaped by the enculturation of traditions within which they have been exposed to as members of social groups, and do not intentionally or consciously transmit information about group affinity. Sackett (1985) argues that isochrestic variation better explains between-group variation in projectile point form among the Kalahari hunter-gathers studied by Weissner (1983). For Sackett (1985), the evidence presented by Weissner (1983) seems to indicate that the San artisans are not really purposefully manipulating the forms of their products to distinguish themselves ethnically. To be true, it was noted that San living in the interior of one group are only vaguely aware of others and some have never even seen the arrows of other groups (Weissner 1983).

Hodder and Communicating Social Relations

Interested in testing the ‘social interaction’ theory of style and the assumption that interaction between groups is correlated with stylistic similarity, Hodder (1982) studied the pastoralist tribes of Lake Baringo in East Africa. With respect to inter-group differences, Hodder demonstrated that the three groups in the region – Tugen, Njebes, and Pokot – are highly differentiated in terms of dress, decoration, and the position of the hearth in the home, but the cultural differences are not due to a lack of between-group contact. The three groups have a long history of interaction and intra-group movement. For Hodder (1982), the Baringo tribes actively and intentionally distinguish themselves from each other. They do so to justify competition for limited resources; an us/them dichotomy allows one group to gain resources (i.e. through cattle raids) from the other without giving anything in return. In other words, style is used to “articulate the relations of negative reciprocity” (Hodder 1982:27) and lets the between-group relations be unstable, competitive, and unbalanced. In the case of Baringo tribes, interaction begets diversity, as opposed to homogeneity.

Style does more than differentiate ethnic groups. It is also used to communicate social relations within groups. As an example, Hodder (1982) presents the decorated calabashes (gourds used as milk containers) of the Njebes. Women in Njebes society decorate the outside of the calabashes, the symbols representing “mediums of silent discourse” against men who have a dominant and
repressive role in Njebes society. Additionally, style in Baringo society cross-cuts ethnic boundaries, spears for example, are carried by all young men in all three groups. Variation in spear style does not correlate with tribe membership, but instead reflects their shared warrior status. Like the women’s calabashes mentioned above, the spears served as an active but subtle discourse with older men who have a monopoly over cattle and women and do not carry spears.

Hodder’s approach to style has many implications for archaeological analyses of material culture. First, it reiterates the active role of style and presents individuals as active constituents in its creation and maintenance. Second, it demonstrates that not all aspects of style can be attributed to the expression of ethnic or group affiliation and lastly, it suggests that the degree of inter-group interaction does not always correlate with stylistic homogeneity.

Learned Behaviour and Technological Style

Technological style is a term used to describe the formal variation that results because ways of doing things are transmitted vertically through the generations through learned behaviour (Hardin 1996; Lechtman 1977). For lithic studies, different technological approaches reflect different learned behaviours. For example, there are different strategies used in Levallois reduction (Boëda 1991; 1995; Boëda and Pelegrin 1980) and these strategies exhibit particular spatial and temporal distributions in the archaeological record of the Eurasian Palaeolithic (Chase and Dibble 1987).

Just as the social and cultural environment affects the final form of an artifact and its decoration, the social and cultural environment also affect the technological actions of artifact production, use, and discard (Lemonnier 1992; 2002). It is the social milieu in which technical action takes place that dictates the technical choices available to the craftsperson and the way in which they perceive the consequences of each choice. In this view, technical actions are not only functional (i.e. materially effective and purposeful), but also stylistic. Arguably, technical action and the choices that guide it can be subject to emblemic, assertive, and isochrestic style, though Lemonnier (1992) emphasizes the latest. For Gamble (1999) technological style can be active and intentional in the way in which it is related to the act of gesture and performance.

The Relationship between Style, Symbols, and Interaction

The relationship between style and symbols is obvious in the case of emblemic style. In this sense, style that conveys a message is a symbol. Yugoslavian hats, for example, are used by individuals as a symbol of the ethnic groups with which they most identify (Wobst 1977).

In hxaro gift exchange, gifted objects become symbols of obligatory relationships (Marshall 1976; Wiessner 1982; 1983). Items such as beads, arrows,
and clothing are gifted in a structured and traditionalized manner that is learned over the course of childhood. There is not a direct trade of goods, but rather the exchange is delayed and the timing and nature of the exchange is dependent on the needs of the individuals involved (Wiessner 1982). This process reduces risk in an unpredictable environment by allowing individuals to temporarily inherit and use resources from more than one ‘territory’ or !nore. The gifting of an arrow to a hxaro partner, for example, is communicating a simple message; here is an arrow, we are partners, we are socially obligated, if I am in need I can take advantage of the resources in your !nore. The arrow becomes a symbol of the relationship and is structuring the interaction between individuals.

In this way, symbols have a meaning apart from the body and apart from the act of making. In lithic reduction, the acts of making and using can have meaning when it is tied to gesture and performance. Drawing from the work of Lemmonier (1992), Gamble puts it this way;

“[Objects] are literally charged with the body as a source of social power and performance. Technology is not just about making stone axes to chop down trees. The gestures which are used to make the axe and then use it embody social representations, or ideas, which are part of wider symbolic systems” (Gamble 1999: 84).

Objects in this sense become part of the symbolic representation through action only. Apart from gesture and apart from performance they do not have a symbolic role. But some objects do have meaning apart from gesture and performance. For example, a Magdalenian Venus figurine on its own can store information about who that maker was. The receiver does not need to witness the action of making the figurine for it to have meaning. Other objects that are imbued with emblemic or assertive style can also have meaning outside gesture and act as symbols. By representing people, relationships, and events, symbols reduce the need for face-to-face interaction between socially obliged individuals (Gamble 1999).

Recalling Wobst’s (1977) information exchange theory, symbolic and stylistic resources are most effective for conveying simple messages to socially distant target groups. Gamble (1999) describes this target group as the extended network; a group of 100-400 individuals that incorporates one’s intimate network (family), effective network (friends), and beyond - the friends of friends, the people one interacts with but does not know well, and people one could choose to draw into their effective network someday. For Gamble (1999), the absence of evidence for symbolic resources in the Middle Palaeolithic of Europe suggests that Middle Palaeolithic hominids did not create or maintain extended networks. This suggestion is further evidenced by the scarcity of material transfers beyond 100 km. 100 km is a real threshold in the movement of materials in Middle
Palaeolithic flint across the landscape, especially in Western Europe (Feblot-Augustins 1993), and the scarcity of transfers beyond this threshold suggest a lack of exchange between adjacent groups. Instead, the materials were likely gathered during the seasonal round of foraging. In other words, Neanderthals were not stretching relations beyond face-to-face contact; rather their societies “were built on co-presence and the reaffirmation of bonds through regular contact instilled in the practices of everyday life” (Gamble 1999:265).

The Upper Palaeolithic record of Europe suggests a much different pattern. As already discussed above, there is ample evidence for the creation and manipulation of symbolic resources. Additionally, regular transfers of materials beyond 100km exist, and at some sites transfer distances exceed 300 km. For these reasons, Gamble argues that Upper Palaeolithic society was characterized by the extension of social relations beyond face-to-face contact through the creation, use, and distribution of symbolic and stylistic resources. Extended networks were an important element of Upper Palaeolithic society and objects and artifacts “used in the performance of social life now have an existence independent from the bodies of the people who made and used them” (Gamble 1999:415). Objects symbolized gesture even when the act of manufacture and use was no longer witnessed.

The theoretical considerations discussed above, coupled with Gamble’s (1999) interpretation of Middle and Upper Palaeolithic societies in Europe provides us with the theoretical framework within which to consider the Middle Stone Age of Africa. Is there evidence of the creation and manipulation of symbolic resources? Were MSA individuals part of extended networks? What does the regionalization of point form tell us about Middle Stone Age hominins? And how were symbols and style employed?

Style, Symbols and Interaction in the Middle Stone Age

Symbolic Resources

Beads

There is evidence for the use of symbolic resources in the Africa MSA. Beads are considered evidence of personal ornamentation (McBrearty and Brooks 2000; Vanhaeren 2005; Wadley 2001; 2003; 2007); the wearer of beads can communicate a message about group affiliation, gender, status, role, etc. through the size, shape, material, and distribution of beads on the body. Beads used in this way become constituents of active style, emblemic and/or assertive, and are used to communicate social relations with socially distant target groups. Reviews of the beads and ornaments recovered from MSA contexts is provided by McBrearty and Brooks (2000:521-522) and Vanhaeren (2005). Ostrich eggshell beads have
been recovered from several MSA sites, but until fairly recently the only securely
dated beads came mainly from deposits dated to around 40 kya at sites in South
Africa, Kenya, and Tanzania. Others were associated with undated MSA layers.
Though the evidence for beads in the MSA was quite abundant, there was little
that could be said about the origins of bead manufacture given the difficulties of
absolute dating in African archaeological contexts. That situation has vastly
improved.

Today, the oldest securely dated evidence for beads in sub-Saharan Africa
come from the site of Blombos Cave in South Africa (d'Errico et al. 2005;
Henshilwood et al. 2004). 41 *Nassarius kraussianus* beads with evidence for trace
use-wear in the perforations were associated with the Still Bay assemblage and
dated to 75 kya by OSL and TL. At Grotte des Pigeons, Morocco 11 perforated
*Nassarius gibbosulus* shells were recovered from archaeological levels dating to
82 kya (Bouzouggar et al. 2007). 10 of these shells exhibit a wear pattern
consistent with use and remains of red ochre were detected on their surface. Most
recently, three perforated shells of *Afrolittorin africana* with possible evidence of
modification and traces of ochre were excavated from the Still Bay (>70 kya) and
Howiesons Poort (>60 kya) levels of Sibudu Cave, South Africa (d'Errico et al.
2008).

*Notched and incised pieces*

Notched and incised pieces of ochre, bone, and ostrich eggshell have been
recovered from several MSA contexts. For a review of discoveries prior to 2000,
see McBrearty and Brooks (2000:522-524). To summarize, incised ochre plaques
and two notched bones were recovered from Klasies River (Singer and Wymer
1982), two notched bones from Apollo 11, Namibia, notched ochre from Hollow
Rock Shelter, South Africa, and notched ostrich eggshell throughout MSA levels
of Apollo 11. The notched ostrich eggshell pieces from the base of Apollo 11
date to at least 83 kya. More recently, incised ochre (d'Errico et al. 2005;
Henshilwood et al. 2004; Henshilwood et al. 2009) and engraved bone fragments
(d'Errico et al. 2001) have been recovered from MSA levels dated to >70 kya at
Blombos Cave, South Africa. Intentionally marked ostrich eggshell fragments
were recovered from the Howiesons Poort levels of Diepkloof, South Africa
(Parkington et al. 2005). Lastly, an engraved ochre piece was recovered from the
site of Klein Kliphus, South Africa and associated with Howiesons Poort levels
(Mackay and Welz 2008). These notched pieces, thought they differ in material
used and the details of the engraving, may share an element of intentional design.
The creation of geometric pattern on the surface of found objects is not known
prior to the MSA and regularity in patterns might suggest the externalization of
thought, though the emic significance of the markings cannot be discerned.
Ochre

Pigment acquisition and its archaeological correlates; worn and ground ochre, grindstones with ochre traces, and ochre mining are common in historic, Iron Age, and LSA contexts throughout Africa. There are also many earlier reports of MSA sites that mention ochre, however, many of these early excavations were discounted due to the problematic context and dating of these excavations (McBrearty and Brooks 2000:526). Nonetheless, evidence for ochre use has been recovered from dozens of archaeological sites throughout Africa, including Blombos Cave, South Africa, Porc Epic Cave, Ethiopia, and Florisbad, South Africa (for a review see McBrearty and Brooks 2000; 526-528) and the evidence for ochre use extends back to the beginnings of the MSA. In the Kapthurin Formation, Kenya, archaeological deposits confidently dated to >240 kya through the use of K/AR and $^{40}$Ar/$^{39}$Ar methods (McBrearty et al. 1996) have yielded numerous hematite fragments, ochre and grindstones with staining that were likely used to process pigment. Additionally, at Twin Rivers, Zambia three pieces of ochre dating to 230 kya have been recovered (Barham 2000).

The purported symbolic role of ochre is linked to its use in Upper Palaeolithic contexts for cave art, and its widespread use in sub-Saharan Africa for the decoration of hair and skin, beads, hides, clothing and house walls and pottery. Some researchers emphasize the domestic and functional use of ochre, for hide preparation and medical use, and question its role as a symbolic item (ie. Wadley 2001). Additionally, Howieson’s Poort pieces from Sibudu Cave have traces of ochre along the backed edge, suggesting that ochre may have been incorporated into the mastic or binding materials when the pieces were hafted into wood or bone handles (Lombard 2006). Nonetheless, it is possible for ochre to have served multiple purposes in MSA societies. The fact the ochre traces are found on the surface of several MSA beads (at Grottes des Pigeons and Sibudu Cave, above) and that many of the notched and incised pieces discussed above were made on ochre, suggest that the link between ochre use and symbolism is a valid one. It is possible that ochre was used in multiple contexts, including the pigmentation of skin and hair for personal ornamentation, the coloring of important objects (hides, beads, and tools) for ornamental and aesthetic purposes, as a tablet for the creation and sharing of geometric designs with unknown significance, and as a utilitarian ingredient in everyday and domestic contexts.

Raw Material Transfers

The movement of raw materials across the landscape has important implications for the ranging patterns and resource networks of stone-tool using populations. For the Middle and Upper Palaeolithic of Europe, a wealth of information is know about lithic sources, their locations, and thus, the distance of
raw material transfers across the landscape is mapped out for many sites across the continent. The same is not yet true of the African MSA, however, there is evidence from some parts of the continent for raw material transfers that exceed 100 km, and even extend beyond 300 km. For example, in the central Kenyan Rift Valley, a dozen distinct petrological groups among the obsidian flows were identified using electron microprobe and x-ray florescence (Merrick et al. 1994; Merrick and Brown 1984). These sources have been traced to a number of sites in Kenya and Tanzania. Some lithics from Muguruk and Songhor, Kenya are from sources 145-190 km away. Lithics from Nasera Rock Shelter, Tanzania have been sourced to an obsidian flow 240 km away and lithics at Mumba Rock Shelter are derived from a source 305 km away (Merrick et al. 1994). Raw material provenience studies from other parts of Africa also demonstrate long-distance movement of obsidian. The site of Porc-Epic Cave, Ethiopia yields artifacts exhibiting a distance of 250 km from site to source (Agazi Negash 2006).

Merrick et al. (1994:43) suggest that the long-distance transfers (>300 km) observed in the central Kenyan Rift Valley suggest increased interaction between groups, rather than the movement of individuals to make direct collection trips to resources. This is probably a fair assertion, but is there evidence to suggest distances of a certain scale are better explained by interaction than the normal mobility rounds of hunter-gatherers? Using a heuristic model of spatial organization based on minimal band size (25-30) and hexagonal ranges, Whallon (2006) identifies the following spatial scales; the minimal band and a radius of 28 km; maximal or regional band and a radius of 123 km; adjacent interacting maximal or regional bands and a radius of 325 km (Figure 1). The spatial extent of the maximal band was reconstructed to 2500 km² based on the reconstructed mobility pattern of Magdalenian groups (Weniger 1987). Assuming this area, with a radius of 28 km, represents the foraging radius of a local band, it is possible to reconstruct the distance covered by the hypothetical maximal band represented by the interaction of minimal bands two groups deep (Figure 1). Other researchers of Mesolithic hunter-gatherers have defined similar scales of social contact – regional (~100km), inter-regional (100-300 km), and long-distance (>300km)-based on the patterns of Mesolithic artefacts and their movement across the landscape (Sulgostowska 2006; Zvelbil 2006).
Figure 1. Heuristic model of spatial organization for Palaeolithic and Mesolithic society (redrawn from Whallon 2006, Figure 4).
By examining the distribution of decorative shells in the Upper Palaeolithic and the Mesolithic, Whallon (2006) is able to demonstrate that Upper Palaeolithic people interacted more heavily with adjacent maximal bands than Mesolithic peoples. Upper Palaeolithic sites have yielded many shells with origins 200-400 km away. In contrast, Mesolithic sites yield few shells from these distances, suggesting their interaction with adjacent maximal bands was less important. In the Mesolithic, however, individuals and groups maintained relationships with maximal bands beyond the adjacent ones, based on the higher proportion of shells with a source exceeding 600 km. This data demonstrates the usefulness of the Whallon’s (2006) model and the definition of the spatial scales used to interpret interaction and exchange in ancient hunter-gatherer society.

A foraging radius of approximately 100 km is also consistent with Middle Palaeolithic data and raw material transfers. Two spatial patterns have been identified for the relationship between sites and procurement zones in the Middle Palaeolithic: radiating and lineal (Feblot-Augustins 1993; Gamble 1999). For the radiating pattern, raw material sources peak at about 50 km distant from the site, though distances up to 100 km are sometimes observed (Feblot-Augustins 1993). For the linear pattern, distances peak at 100 km. In the Middle Palaeolithic, sites with a lineal pattern are located in areas where the geographic relief influences movement along a single axis rather than in a radiating pattern (e.g., along the edge of a mountain range) (Feblot-Augustins 1993). These patterns are thought to be associated with regular seasonal trips during which raw material resources were collected in addition to subsistence items. The ‘territories’ correspond to about 10,000 km².

If the land use studies of the European Palaeolithic (Feblot-Augustins 1993; Gamble 1999; Sulgostowska 2006; Weniger 1987; Whallon 2006; Žvelbil 2006) are used as a model for understanding the obsidian transfers in the Middle Stone Age of Africa, one could put forth the following conjectures: (1) raw material transfers within ~100 km represent the collection of materials over the course of the regular seasonal round of foraging hominids and (2) raw material transfers exceeding ~100 km represent the interaction of adjacent maximal bands. Thus, the multiple MSA sites in Africa that demonstrate the transfer of materials between 150-305 km might be demonstrating interaction and extended networks involving obsidian exchange between adjacent maximal bands.

“Regional” Traditions in Point Form

How does the above model of spatial organization map onto the ‘regional’ point form traditions of the MSA? In short, the scale of point form homogeneity far exceeds the scale of interacting adjacent maximal bands. The distribution of Howiesons Poort lithics, to use an example, extends from the coastal zone of
southern Namibia, to Northern South Africa, to Lesotho, and to the Eastern Cape (Figure 2). This correlates to an area of roughly 1,300,000 km². The scale of point form style is not ‘regional’, it is not even inter-regional. The homogeneity of point forms extends across huge proportions of the African continent. How can we understand the homogeneity of projectile point style across an area of this size?

At this scale it is difficult to imagine projectile points as emblemic objects used to signify ethnic identity, that is, objects used to communicate group or ethnic affiliation in the sense described by Wobst (1977). For that to be the case, Howiesons Poort toolmakers would not only have had to be aware of Lupemban toolmakers, for example, but also intentionally using point style to differentiate themselves. The opposite of emblemic style might be isochrestic style - the choices between variants that are ‘equivalent in use’ that are learned or socially transmitted passively and unintentionally (Sackett 1982; 1985) - but it seems equally unlikely that the variation across Africa in point form can be explained wholly by isochrestic variation. The reasons for this are:

1. MSA point forms have a potential to have meaning outside of gesture and outside the knapping sequence. Unlike different types of Levallois technology that produce similar products through diverse knapping strategies, projectile points exhibit significant variation in size and shape that have the potential for meaning separate from the knapping experience.

2. Points take effort and time to shape, especially the thin and highly symmetrical ones.

3. There is evidence that some points did take on a social/political value. Still Bay points are extremely long and thin and may have been two fragile for effective use. They have been likened to the Kimberly bifaces of Australia which were originally hunting tools, but have taken on a ritual and social role as circumcision knives (Marean and Assefa 2005).

4. We also know lithic raw material held a special status in MSA society and was transferred long-distances. Obsidian was transferred across the landscape 200-300 km in East Africa. Also, the exploitation patterns at some sites suggest that MSA hominids made preferential use of distant obsidian outcrops even when closer sources were available (Merrick et al. 1994).

5. As presented above, we know MSA hominids had the capacity to create and manipulate symbolic resources and interacted with adjacent maximal bands.

6. Also, if ethnographic accounts of *hxaro* can be used as analogy based on material culture linkages between the LSA and MSA of southern Africa (Deacon and Deacon 1999), then we might conjecture that points in the MSA were exchanged and used to create and maintain social networks.
Together, the MSA evidence points towards an active role for projectile points in MSA society. One can imagine a scenario which involves the use of projectile points as both hunting objects and as objects used in the creation, maintenance, and manipulation of social relations. For projectile points to be used as exchange objects, toolmakers must conform to a familiar template in order for the hunter to perform with tools produced by a variety of craftsmen (David and Kramer 2001:187). The homogeneity we see across large proportions of Africa in point form is probably reflective of this fact. In this sense then, point form in the MSA does reflect active style. The messages are directed at individuals in socially distant groups, probably in adjacent maximal bands—here is a spear, we are similar, we are socially obligated to each other.

But the points are not ethnic identifiers in the sense that they are actively used to communicate difference. For that to be the case, projectile points would have to visible outside of an exchange context, but variability in point form, unlike hats, is not visible from a distance. In fact, most of the obvious variation between point forms is actually manifested in the hafted end, which would be obscured through the hafting process itself and not visible except through close inspection and/or when lithic tips are replaced. Point form in the MSA, though it does vary on an intra-continental scale, did not serve to communicate ethnic affiliation the way that dress and earring style in Baringo tribes communicated I am different from you and justified to compete over resources with you (Hodder 1982). This type of interaction is likely to have occurred in MSA society, but
through the manipulation of other symbols such as ochre, beads, and other forms of personal ornamentation.

I argue that MSA point forms are manifestations of active style. But rather than serving as symbols of group or ethnic affiliation, point forms symbolize social relations between obligated individuals. The scale of interaction, if raw material transfers can be used as an indicator, are likely to have occurred between adjacent maximal bands within an area of very roughly 332,500 km², which corresponds to an interaction radius of about 325 km. The degree of interaction must have been considerable and inclusive of groups in all directions to explain the homogeneity of point form over areas that significantly exceed this interaction zone. This homogeneity might reflect a sort of down-the-line exchange of point form mental templates, rather than points themselves. In MSA society then, point form homogeneity was maintained through an active process of symbolic exchange and requires as much explanation as the heterogeneity in form one sees across the continent. The similarities in point form among the so-called ‘regional’ traditions might reflect an example of style that cross-cuts ethnic boundaries, rather than defining them (Hodder 1982).

What about the spatial heterogeneity in point form across Africa during the MSA? Other aspects of style may have played a role in creating the differences in point form. Where interaction between adjacent maximal bands was less, and the active maintenance of stylistic homogeneity broke down, point forms may have diverged. In modern human society, this would result from both unintentional isochrestic processes – variation in learned behaviour due to different choices of traits ‘equivalent’ in use – and active processes that may have developed out of intentional ethnic differentiation at point form or ‘regional’ boundaries. Unfortunately, the archaeological record of the African MSA does not exhibit the chronological control at this point to analyze the nature of interaction at these ‘regional’ boundaries. Functional differences due to different extractive activities are also likely to explain some of the variation in point form, reflecting the adaptability of Pleistocene hominins to various environmental situations. The most obvious example being the Katanda barbed bone points that are associated with the exploitation of freshwater fish in Central Africa (Brooks et al. 1995; McBrearty and Brooks 2000).

Summary and Conclusions

The archaeological record of Africa suggests that MSA hominids created and manipulated symbolic resources. Evidence for the use of externally-stored symbols (Wadley 2003; 2007) comes from the abundant evidence for bead manufacture and use, the creation of abstract designs on the surface of bone, shell, and ochre, and the widespread collection and processing of pigments. Furthermore, there is evidence that MSA hominids interacted across long-
distances. Many obsidian transfers in the MSA exceed 200-300 km. Models reconstructed from Palaeolithic studies of social organization and the transfer of goods across the landscape suggest that 200-300 km exceeds the regular foraging zone of a mobile hunter-gatherer band and implies the interaction of adjacent regional bands involving exchange of material goods (Feblot-Augustins 1993; Gamble 1999; Sulgostowska 2006; Weniger 1987; Whallon 2006; Zvelbil 2006). Together, this evidence suggests that point styles may reflect interaction between geographically distant groups and could have been used as symbolic objects with social/political value. If *hxaro* is used as analogy for the type of exchange observed in the MSA, one can conjecture a scenario in which hunting spears come to symbolize social relations and social obligations between trading partners, some of which cross-cut the boundaries of the maximal band. Spears may have had an important role in the creation and maintenance of social relations, and point form may have been conserved through time and across space because receivers of gifted spears were better able to perform with a design they were familiar with. Point form in the MSA reflects active style, but not truly emblemic in the sense that it intentionally demarcated ethnic boundaries. Difference in point style across the continent is likely due to various processes of stylistic change, both stochastic and active.

Thus, the Upper Palaeolithic is not the first time we see some aspects of ‘modern human behaviour’. In the African MSA, there is evidence for the manipulation of symbolic objects, long-distance exchange, and the maintenance of extended networks. This interpretation of the record is most in line with an early origin for modern human behaviour – though the exact timing of the event and the nature of the change (gradual or rapid) is still difficult to assess. Points and ochre can be traced back to the beginnings of the MSA (~250 kya), but thus far, beads, incised objects, and long-distance exchange do not exhibit such a time-depth. Beads and incised objects first appear in the archaeological record about 80 kya, and long-distance exchange is so far only evidenced in sites less than 150 kya (McBrearty and Brooks 2000:Fig 13). Whether this is a real pattern revealing the gradual accumulation of modernity or an artefact of the nature of archaeological investigation is impossible to assert at this point. Regardless, MSA societies by at least 80 kya, and perhaps by 250 kya, probably exhibited the traits of modern hunter-gatherer societies with respect to style, symboling, and interaction.

There is opportunity for future work. First, the MSA is a long time period and the absolute dating of more sites in Africa is necessary. As this situation improves it might be possible to accurately demonstrate the contemporaneity of sites and conduct more regionalized studies of resource use and land use patterns. Additionally, raw material sourcing is still difficult in Africa, but further research will undoubtedly lead to more insights into how raw materials were moved.
around the landscape. Perhaps, points can be sourced and their movement across space might be discernible. Lastly, the spatial model used here to interpret long-distance exchange and interaction is based on the archaeological record of the European Palaeolithic. Whether this is the best model for understanding landscape use in hominids in the African MSA is unknown. Future research could focus on developing an analytical framework based on the environment, geography, and archaeological patterns of Africa, perhaps informed by a more regionalized approach sensitive to local conditions and history.
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