The materiality of gesture:
Intimacy, emotion and technique in the archaeological study of bodily communication

Steven Matthews
Schools of Arts, Histories and Cultures, University of Manchester

stevematthews299@yahoo.co.uk

> *The things of the world are not simply neutral objects which stand before us for our contemplation. Each one of them symbolises or recalls a particular way of behaving, provoking in us reactions which are either favourable or unfavourable. This is why people's tastes, character, and the attitude they adopt to the world and to particular things can be deciphered from the objects with which they choose to surround themselves, their preferences for certain colours or the places where they like to go for walks.*
>
> (Merleau-Ponty M. 2004: 63)

Introduction: The materiality of gestures

Marcel Mauss, in his famous paper on the subject, conceived of bodily gestures as 'techniques of the body', that being:

> *The ways in which from society to society men know how to use their bodies*
> (Mauss 1973: 70)

Mauss outlined a number of techniques and identified sources of social variation within them, and demonstrated how even the most mundane bodily activity is a cultural technique, whose form varies both culturally and historically. What has been overlooked by other disciplines, such as psychology and sociology, in following the lead of Mauss' paper, is the *materiality* of gestures. When Mauss wrote of specific techniques, he was also making reference to a world of materiality, or what he referred to as 'instruments' or 'supplementary means' (*Ibid*: 83):

For there are techniques of the body which presuppose an instrument (Mauss 1973: 79)

For example, in his observation of the technique of digging, reference is made to the different spades used by British and French troops during the First World War; the troops that march to the sound of a French bugle; the influence of American films upon the way that French girls had begun to walk; the girls raised in convents who walk with their fists closed; the English child who sits at the table with his elbows kept in and the French boy who doesn't know how to sit up straight, his elbows sticking out or which are placed upon the table; a woman's weak and vertical throw of a stone; the technique of sleeping and Mauss's own experience of insomnia upon the changing of a bed. Related to these techniques of digging, marching, walking, sitting, throwing and sleeping, we encounter spades, musical instruments, buildings, tables and chairs, stones and beds.

This material milieu within which action operates is always institutionalised with regard to socially normative patterns of behaviour, and where these social institutions occur in Mauss' observations, weaved amongst the observations of gestures and materiality, the cinema, the family, school, religion, hospitals and so on, they appear to suggest that the techniques of the individual body are learned as a consequence of specific areas of schooling, such as in the army or from swimming lessons. Techniques however, are *properties*, not *consequences*, of the system of relations constituted by the existence of persons within these richly structured environments (Ingold 1997: 110). Rather than the process of gestural techniques acting on material culture, which is the usual concern of papers exploring themes in the 'anthropology of technology' (e.g. Lemonnier 1992), it is here that I believe an 'archaeology of gesture' can contribute: in a concern with the social structures within which such gestures existed and operated - their generative structuring principles.

Ingold (1997: 111) describes these skills and techniques not as the mechanical application of external force but involving the qualities of care, judgement and dexterity, as an *attentive* engagement:

> *Whatever the practitioner does to things is grounded in an attentive, perceptual involvement with them, or in other words, that he watches and feels as he works* (Ingold 1997: 111)

This perception of the world by people is perhaps the most fundamental aspect of any study of gestures. The world is experienced through our body and it is a sensual and emotive experience. The relationship of body, gesture and artefact is a process of an intimate interaction and not just 'action on the material world'. They are actions that are thought about and felt. Moreover, gestures are not necessarily about what a person is doing with their body but rather how that action comes to be understood by others. Gestural techniques are wholly social and communicative, even when that communication is unintended. Therefore, it is not an emotional discourse in the sense of what I am feeling but an intimate discourse in terms of how those emotions are shared and interpreted by others. Merleau-Ponty (2002) describes this as a process of 'intercorpreality', where emotions are both worldly and material in form.

Intercorporeality: Intimacy and emotion in gestures

The writings of Maurice Merleau-Ponty suggest one possible way that an 'archaeology of gestures' can contribute as a research agenda that is concerned with more than just technology or behaviour. Merleau-Ponty (2002; after Crossley 1995: 143) argues that we should not view cognitive processes as referring to internalised mental states but rather as publicly verifiable aspects of embodied conduct. The implication of this is that the subjective or mental states of others are available to us, directly, and that ours are available to them, directly, in the form of our actions. This 'intercorporeality' is constituted by our bodily techniques that manifest our intentions and feelings (Crossley 1995: 146). Knowledge and understanding about the world therefore is not locked away somehow in peoples heads but is instead out in the world: it doesn't so much *have* a ancillary material manifestation as it *is* material.

We cannot of course recover or reconstruct the specific emotional states of past peoples but that doesn't mean that we should ignore the fact that people did in fact care about the world in which they lived, we cannot ignore the fact that things mattered, and that they mattered greatly. We need to acknowledge that people in the

past were emotional beings, that emotions guided not only their actions but their views and experiences of the world – emotion is *already* and *always* present, we do not need to discover or excavate it.

Emotions can be understood as embodied, as inseparable from bodily practices such as gestures, rooted in the intimacy and immediacy of instantiated or corporeal interchange: face-to-face, body-to-body (Crossley 1995: 145). Emotions are part of experienced reality arising from and orientated toward the social world, as part of the skills that are used to cope with the social order. Time, space and identity are all states that are directly experienced and embodied, and are interwoven with emotion and affective states of perception.

For Merleau-Ponty, gestures and bodily communication derive from such emotional expression:

> *We must reject the prejudice which makes inner realities out of love, hate or anger, leaving them accessible to one single witness; the person who feels them. Anger, shame, hate and love are not psychic facts hidden at the bottom of another's consciousness: they are visible from the outside. They exist on this face or in those gestures, not hidden behind them* (Merleau-Ponty 1971: 52; after Crossley 2001: 84)

In other words, my emotions exist for you because they comprise my embodied manner of acting in and thereby relating to my world: emotional states are intercorporeal and worldly. The bodily practices of others concern and affect me because of shared collective habits of emotion. We adhere to common cultural traditions, and as a consequence different cultures have different forms of emotional behaviour, or to put it another way, we have different ways of living emotion and being emotional. Emotions are therefore ways of being-in-the-world; that is, ways of making sense of and acting in the world. To be in a particular emotional state entails perceiving the world in a particular way; noticing the things that one might not usually notice and being affected by what one sees in ways that one might not normally be affected by. One's life-world is transformed, as are the meanings of all that is encountered therein, and the way in which one acts in the world, comporting

oneself towards objects and others, is transformed too. This would not be possible, however, if emotion were not a constant aspect of our life-world.

Ways of doing, ways of being: gestural techniques and the Bronze Age

Through an example of certain Bronze Age techniques I want to demonstrate the intercorporeality of gestures, materiality and cultural cosmology, as an example of how more complete object biographies can be constructed in terms of how technological choices and gestural techniques involved not just functional choices but value judgements regarding natural substances, object design and production, use life and repair, and an objects eventual disposal, within a meaningful and emotive social environment.

Substances, techniques and value in object production

The sword is argued to represent a significant development during the Bronze Age, and was the first bronze artefact specifically designed for institutionalised combat and warfare (Harding 2000: 277). It was also a powerful, gendered symbol throughout much of Bronze Age Europe (Sørensen 2000: 91), representing as it does 'the symbol of its age' (Harding 2000: 281), 'A beautiful object, an efficient killing tool, a symbol of power and wealth, an implied or actual threat, a sacrifice, a gift, a reward, a pledge of loyalty and… an embodiment of the idea of conflict' (Bridgford 1997: 95). As a consequence of this, swords are synonymous with the working of bronze. However, craftsmen during the Bronze Age, whilst clearly having a great understanding of the properties of the materials they worked with, are likely to have based the technological choices they made according to entirely different criteria and systems of values that were entirely different to our own. Based upon modern understandings of materials and their functional, social and monetary value, it is entirely possible that we have overstated the importance of 'bronze' during this period (e.g. Sofaer-Derevenski and Sørensen 2002) as a consequence of some perceived intrinsic value of bronze as an object in itself. Artefacts that were made from materials other than bronze, such as wood, are not uncommon (Harding 2000: 244), and overlapping

classes of objects in different types of material suggests that there was much more to the Bronze Age than just bronze (Figure 1).

Figure 1: Bronze (left) and flint (right) swords and daggers from the Danish Bronze Age (after Brøndsten 1966)

For example, the Groatsetter sword, discovered in Orkney (http://www.orkneyjar.com/history/groatsetter_sword.htm), is a sword of the Ewart Park type but made entirely of yew wood. The sword has been carbon-dated to between 900BC and 815BC, with a blade measuring 79.5 cm and what remained of the hilt measured 7.6cm. The timber the sword was made of has never grown in the Orkney Islands and therefore the sword, or the timber to make it, were imported. There are indications that the hilt was decorated but was also considerably worn and polished through repeated use, suggesting it was handled regularly, although not in a manner that would have damaged the fragile blade. Despite a lack of bronze in the northern isles there is no reason to suggest that wood was used as a make-do replacement for metal. Instead, the reasonably unmarked condition of the sword suggests that it was not utilitarian in the conventional sense of a weapon.
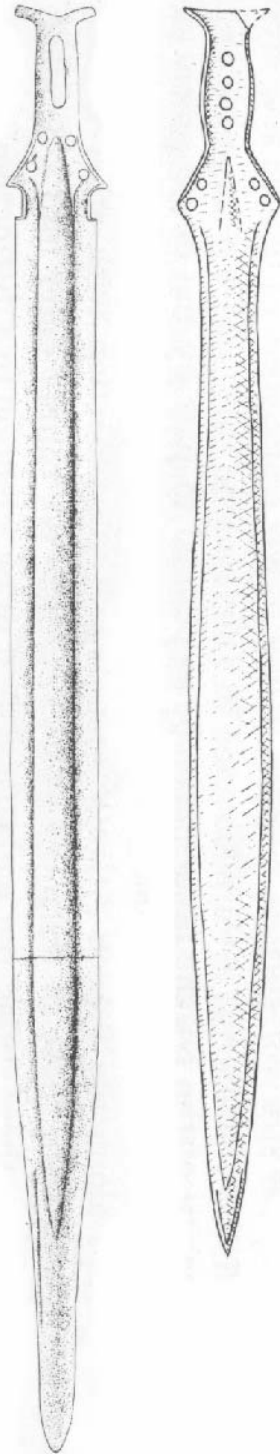
Whilst the social value of bronze has been much debated, it is often overlooked that metals are themselves a composition of other different substances that would themselves have held specific values and qualities that would have related to and effected the nature of how various artefacts made of bronze would have been perceived. As a compositional substance therefore, bronze requires a far more complex system of categorisation than just that of 'bronze'. In a study of Early Bronze Age bronzes from Northern Italy, Pearce (1998) demonstrates how different copper was deliberately used in the production of different artefact types, and that 'composition reflects deliberate choice by the ancient metalworker' (*Ibid*: 58) with arsenical copper being used for halberds and daggers and purer copper used for flat axes. Pearce suggests that this choice was based upon the final artefacts symbolic status, a conclusion that goes against generally perceived wisdom considering prestige objects as flat axes are traditional considered utilitarian objects.

This differential choice of substances and object forms may also have related to the manufacture of swords throughout the Atlantic Bronze Age. The same sword type is found along the entire length of the Atlantic European coastline from Scotland to Spain. Quilliec (2004) has suggested that during the Later Bronze Age two distinct swords emerged in this area (Figure 2): In the north (England, Scotland, Wales and Ireland) the *Ewart Park* type is dominant, whilst in the south (France, Spain and Portugal) the *Carp's Tongue* sword is more apparent. Clearly, value judgements or technological choices based upon cultural perception

Figure 2: *Carp's Tongue* sword (left) and *Ewart Park* sword (after Briard 1979)

were being made as to what type of sword was produced, used and distributed in certain areas. There is of course a certain amount of freedom in such choices given the overlapping distribution of the two types rather than appearing as exclusive distributions of types (Figure 3). However, the two areas clearly demonstrate a preference for one type or the other that cannot be simply accounted for by access and distribution problems: the only constraint on choice was cultural, social and symbolic. This is important as the technical gestures utilised in the production of these objects would have utilised shared knowledge but also required other quite different sets of techniques and understanding. Moreover, whilst the wood and stone swords such as those depicted in Figure 2 appear typological to be indistinct from their metal counterparts, their methods of production and the gestural techniques involved in their manufacture would have been very different indeed from that of metal swords.

Figure 3: Distribution of *Carp's Tongue* swords in Europe (after Harrison 2004)

From this we can conclude that it is not just the objects finished symbolic value as a generalised object (e.g. sword) or a specific form of object (e.g. *Ewart Park* sword) but the way that the artefact was brought into being: the choice of substances, the choice of form and manufacture, the way that it would have been used, and how it would have been disposed of. The object and its associated technical gestures emerge from, reinforce and transform the generative field in which they operate under conditions of ascribed choice and restriction.

The sociality of design and use

The use of swords also relates in quite specific ways to 'techniques of the body'. The design of Middle and Late Bronze Age swords has been shown to be specifically related to their technical use and therefore would have required a very specific set of bodily techniques in order to render the sword as effective. Kristiansen (2002), studying swords from Central Europe, has noted how several technical aspects of the design of these swords relate specifically to the way that they were to be used. For example, there is a recurring bending of the blade (*Ibid*: 320) that effects the way that the sword should be held: with the curved blade bending inwards (i.e. if held in the right hand the bending should be toward the left), and if the sword is held so as to bend to the right 'it changes the balance and feels wrong'. Such design features impose a normative scheme of techniques, or in other words, a correct way that the sword should be held in order to be effective. This is apparently confirmed by the occurrence of a few swords apparently intended for left-handed swordfighters, again allowing the bend of the blade to face inwards. Modern examples of this feature suggest that the reason for this bending inwards of the blade is that when confronting an enemy in an attack position, holding the sword in ones hand, the user wants the blade to point towards their opponent's heart (*Ibid*: 320).

Moreover, the *balance* of the sword defines its function as either a thrusting or slashing sword (*Ibid*: 320). We see a stylistic development in the Middle to the Late Bronze Age from long and narrow rapier-like blades, suggesting its function as a thrusting sword, to a much wider and heavy blade, suggesting it functioned as a slashing sword. The difference is in the location of the point of equal balance between

the weight of the hilt and the weight of the blade: on rapiers and thrusting swords the point of balance is located close to the hilt, on slashing swords it is located further down the blade. Given these traits, Kristiansen suggests that the movement of a thrusting sword should be fast, for defence and rapid thrusting, while a slashing sword would be too heavy for such fast movements, and would instead favour long slashing movement with a lot of weight and force behind the action.

This functionality is confirmed by the recurring traces of use from combat found upon the blade (*Ibid*: 323; see also Bridgford 1997). Kristiansen suggests that such blade damage represents a recurring pattern throughout the Bronze Age: that the blade area below the hilt was used to defend blows, an area that consistently demonstrates signs of severe damage and extensive resharpening to the point where the blade was in fact no longer symmetrical. This damage appears heaviest on the underside of the blade as the swordfighter would be recurrently holding their sword in the same way, resulting in the resharpened blade often being incurved and narrower below the hilt. The middle part of the blade was where damage from attack was sustained, such as when a slashing movement by another sword was stopped. On hoarded swords such scars appear very clearly, and on resharpened swords there occurred incurved parties along the edge. Finally, the point or tip of the sword could often be bent or break off when a thrusting movement was stopped, such as by a shield, and also need to be resharpened. These elements of design, when compared with the extensive evidence for use-wear, suggest that sword fighting, in whatever context, was a highly skilled and technical practice of the Middle and Late Bronze Age.

Much like the wooden and stone swords noted above the functionality of a swords design did not directly correlate to its use. For example, we find a significant discrepancy between the extensive evidence for use-wear on flange-hilted swords and the minimal evidence for use-wear in comparison on that of full-hilted swords (Kristiansen 1987: 40). Kristiansen (1998: 252) has suggested that the difference lies in the swords being associated with different classes, identities or roles of males, with the flange-hilted sword belonging to a 'warrior chief' and the full-hilted sword belonging to what he has termed the 'priestly chief'. As well as paired male individuals being of common occurrence amongst rock art and other material

mediums throughout Bronze Age northern Europe, this dualism is exemplified in a double male burial from southern Jutland, Denmark, which Kristiansen (2001: 92-93) argues confirms the pairing of warrior and priestly chiefs (Figure 4). Here we find side by side the priestly chief with a Nordic full-hilted sword buried alongside his 'twin' ruler, the warrior chief with his 'foreign' flange-hilted sword, representing the dual political and ritual institution of leadership, whereby the priestly chief would 'stay at home' whilst the warrior chief was less restricted and was free to make regular forays into other parts of Europe (see Kristiansen and Larsson forthcoming: Chapter 6). This dual role for males represents an interesting relationship of social identity between the foreign and the familiar in terms of both material culture and knowledge acquired through journeys into these foreign and unfamiliar lands (e.g. Helms 1988).

Again we see a relationship between social roles, such as the warrior chief and the priestly chief, and the knowledge and gestural techniques related to exclusive artefacts associated with those roles, such as in the manufacture of flange-hilted and full-hilted swords.
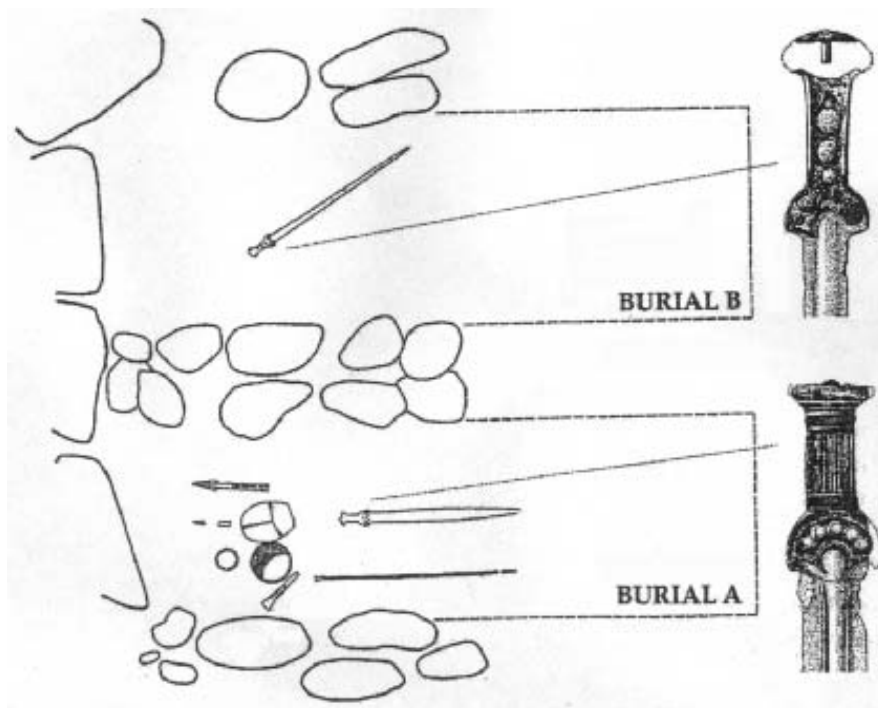

Figure 4. Middle Bronze Age twin male burial from southern Jutland, Denmark, representing: A. the 'ritual chief' with Nordic full-hilted sword and equipment. B. the 'warrior chief' with a foreign flange-hilted sword (after Kristiansen 2001)

Deposition, death and destruction

Swords were specialised items, belonging only to a minority of Bronze Age society in northern and central Europe. They represent significant 'symbols in action' when associated with the various techniques of bodily gestures, comportment and postures. Elsewhere I have argued for a process of 'instantiation' whereby identities are not materially fixed but are instead performed and reiterated through continual social and material practice (Matthews 2004) or what we might call 'corporeal symbolism'. During the Middle and Later Bronze Age a particular perspective on a bodily aesthetic appears to have emerged amongst these warrior elites and material technologies of dressage and appearance becomes manifest (Treherne 1996). The performance of this aesthetic, which I believe included the *use* of swords, rather than just the symbol of the sword itself, helped in the maintenance of an elite identity that facilitated certain groups to transcend their direct affiliation with particular localised societies, and associate themselves instead with a supra-regional groups related most likely in some fashion to the 'warrior' ideology that took root in various forms throughout Europe at this time. The articulation of these supra-regional identities is well illustrated by the depositional circumstances of bronzes in the southern Netherlands (Fontijn 2002). Here we find a significant difference between locally associated or produced artefacts and foreign artefacts, notably ornaments and swords. Assuming that the home is the centre of one's personal world, Figure 5 shows that we find only certain classes of material were deposited here, primarily those that were locally produced, and as one moves further out into the world, particularly into wet locations, we find the deposition of artefacts with foreign associations, items that are traditionally related to this pan-European phenomenon of the 'warrior' (*Ibid*: 264). It can be argued that the differential gestural techniques involved in both the manufacture and use of these different objects were associated with different sets of social normative practices relating to a structural symmetry of familiar and unfamiliar, local and foreign, safe and unsafe.

Figure 5: Model showing the depositional relationship of local and foreign between place and artefact in the Middle and Late Bronze Age of the southern Netherlands (after Fontijn 2002)
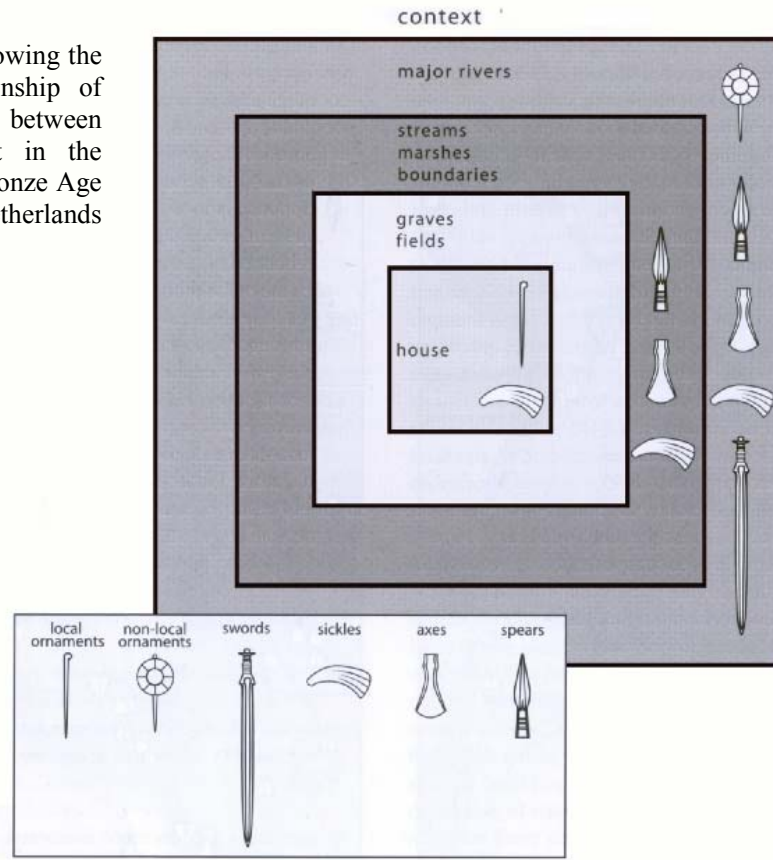
The sociality of gestures

Above I have attempted to briefly outline the various contexts and circumstances in which we can identify technical gestures related to the situated circumstance of manufacture and use of a particular class of material culture. A good example of the situated nature of social practices and institutions is the apparent division between warrior chiefs and priestly chiefs that we have already mentioned in relation to flange hilted and full hilted swords. Kristiansen (2001) has attempted to trace the symbols, practices and material culture across a variety of contexts relating to various practices and artefacts associated with this institution of the 'twin-rulers' (Figure 6). Gestures must be similarly described and framed in reference to and differentiation from other similarly situated practices. Above I have tried to suggest how the construction and use of swords in the Bronze Age relates to numerous other social and material contexts beyond its own immediate context.
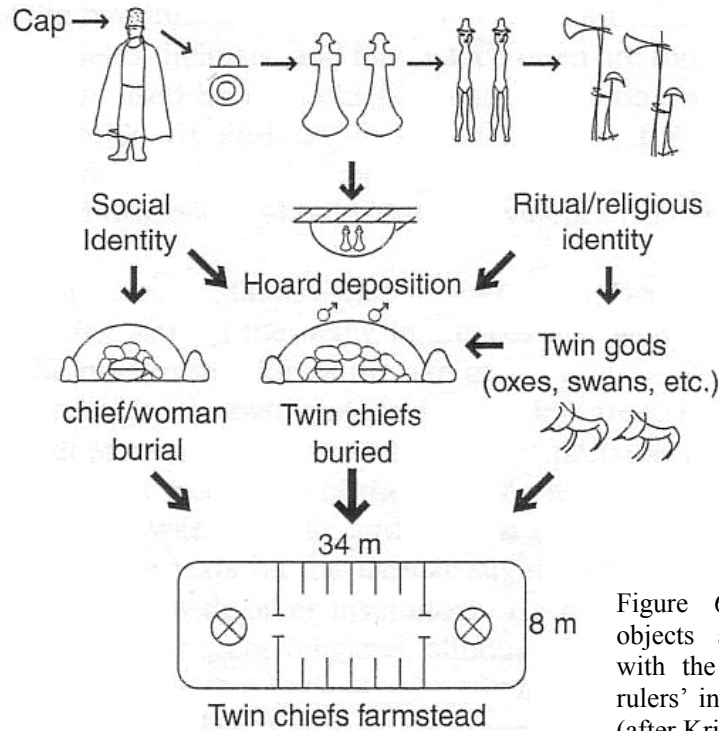
Figure 6: The relationship of objects and contexts associated with the institution of the 'twin rulers' in Bronze Age Scandinavia (after Kristiansen 2001)

The sword is usually considered one of the primary symbols of the Bronze Age. Linked with the idea of a warrior elite or caste within an emerging stratified society with a greater sense of individualisation, the sword is an object of social exclusivity but one that has a wide spatial distribution across Europe representing a shared ideology. This social status and its apparently intrinsic value as a consequence of being made of metal has placed it above all other the artefacts of the period. All of these assumptions have inherent flaws and it would be difficult not to acknowledge the debt owed to the modernist values of contemporary society have played in this construction of 'Bronze Age society'. However, the material forms of certain objects such as swords and their spatial patterning does suggest that they did indeed have a social value, but it would have been a value constructed in relation to the value and symbolic capital of other objects, or in other words, a sword is only important because it isn't an axe and so on and so forth. Gestures and techniques operate much in the same way. The Saussurian analogy here is of course quite apparent but perhaps a material study of gestures, rather than a linguistic approach, might yield some previously overlooked aspects of human bodily communication. The relationship between bodies, gestures and artefacts is a good example.

Conclusion

Marcel Mauss taught us to notice that there was something meaningful in the way that we move and the way in which we do things. Mauss's mistake was in de-contextualising these meaningful bodily habits and ignoring the question of why certain cultures, age groups, genders or class groups value movement in a particular fashion and not another way.

Like artefacts, situated within webs of meaning and signification, gestures too have widespread symbolic and material connotations within both specific and generalised contexts of social action. It is not enough to simply say 'here was a particular gestures' and this was what it did and this is what it meant. Gestures are both ambiguous and multifaceted and any particular gestural technique will almost invariably have a counterpart within another social, material or spatial context. Moreover, the symbolic nature of bodily communication is integral to its study. Gestures are not things unto themselves acted out by a single individual. There are co-productive or in other words, they matter only because they operated first within a social, cultural and material milieu and their communicative capacity only matters in that it is intended to communicative, whether consciously or subconsciously, *something* to *somebody*: it is performative.

The continuity and discontinuity of particular techniques and technologies has been argued to be based upon a system of cultural values (or 'technological choices') that is not necessarily concerned with a technique or artefacts functional capacity (e.g. Lemonnier 1986: 155). This notion is of course quite foreign to the thinking of contemporary Western or other recently industrialised persons. Of course, such a difference is based upon the perceived values of certain practices, objects, symbols, etc. What we might consider an irrational choice is therefore a question of a particular social and historical perception of the world, and rational behaviour or choices certainly need not be the objective detached practice that has emerged in the modern world. Therefore, in order to explore notions of value in bodies, gestures, material culture and the world, those things that I believe are necessary requisites for an

'archaeology of gesture', we need to note the importance of both intimacy and emotion in material practice.

References

Briard, J. 1979. *The Bronze Age in Barbarian Europe: From the Megaliths to the Celts*. London: Routledge and Kegan Paul.

Bridgford, S. D. 1997. Mightier than the pen? (An edgewise look at Irish Bronze Age swords). In J. Carmen (ed), *Material Harm: Archaeological Studies of War and Violence*. Glasgow: Cruithne Press, 95-115.

Crossley, N. 1995. Body techniques, agency and intercorporeality. *Sociology*, 1(1): 133-50.

Crossley, N. 2001. *The Social Body: Habit, Identity and Desire*. London: Sage.

Fontijn, D. R. 2002. *Sacrificial Landscapes: Cultural Biographies of Things, Objects and 'Natural Places' in the Bronze Age of the Southern Netherlands, C. 2300-600 BC*. Leiden: University of Leiden/Analecta Praehistorica Leidensia 33/34.

Harding, A. F. 2000. *European Societies in the Bronze Age*. Cambridge: Cambridge University Press.

Harrison, R. 2004. *Symbols and Warriors: Images of the European Bronze Age*. Bristol: Western Academic and Specialist Press Ltd.

Helms, M. W. 1988. *Ulysses Sail: An Ethnographic Odyssey of Power, Knowledge and Geographical Distance*. Princeton: Princeton University Press.

Ingold, T. 1997. Eight themes in the anthropology of technology. *Social Analysis* 41 (1): 106-138.

Kristiansen, K. 1987. From stone to bronze: the evolution of social complexity in Northern Europe, 2300-1200 BC. In M. Brumfield and T. K. Earle (eds), *Specialization, Exchange and Complex Societies*. Cambridge: Cambridge University Press, 30-51.

Kristiansen, K. 1998. *Europe Before History*. Cambridge: Cambridge University Press.

Kristiansen, K. 2001. Rulers and warriors: symbolic transmission and social transformation in Bronze Age Europe. In J. Haas (ed), *From Leaders to Rulers*. New York: Kluwer/Plenum, 85-104.

Kristiansen, K. 2002. The tale of the sword – swords and swordfighters in Bronze Age Europe. *Oxford journal of Archaeology* 21 (4): 319-332.

Kristiansen, K and Larsson, T. Forthcoming. *The Rise of Bronze Age Society: Travels, Transmissions and Transformations*. Cambridge: Cambridge University Press.

Lemonnier, P. 1986. The study of material culture today: Toward an anthropology of technical systems. *Journal of Anthropological Archaeology* 5: 147-186.

Lemonnier, P. 1992. *Elements for an Anthropology of Technology*. Michigan: University of Michigan.

Matthews, S. 2004. The Instantiated Identity: Critical Approaches to Studying Gesture and Material Culture. Paper presented in '*The Materialisation of Social Identities*' session at the Theoretical Archaeology Group conference, University of Glasgow, Scotland, 17th - 19th December 2004 (http://www.semioticon.com/virtuals/archaeology/instantiated.pdf).

Mauss, M. 1973. Techniques of the body. *Economy and Society*, 2: 70-88.

Merleau-Ponty, M. 1971. *Sense and Nonsense*. Evanston: Northwestern University Press.

Merleau-Ponty, M. 2002. *The Phenomenology of Perception*. London: Routledge.

Merleau-Ponty, M. 2004. *The World of Perception*. Abingdon: Routledge.

Pearce, M. 1998. Reconstructing prehistoric metallurgical knowledge: the northern Italian Copper and Bronze Ages. *European Journal of Archaeology* 1 (1): 51-70.

Quilliec, B. 2004. Atlantic swords: a technological approach for Late Bronze Age societies. Paper presented to the Bronze Age Forum, University of Southampton, Southampton, 13th – 14th November 2004.

Sofaer Derevenski, J. and Sørensen, M. L. S. 2002. Becoming cultural: society and the incorporation of bronze. In B.S. Ottaway and E. C. Wager (eds), *Metals and Society: Papers from a session held at the European Association of Archaeologists Sixth Annual Meeting in Lisbon 2000*. Oxford: British Archaeological Reports, International Series 1061, 117-21.

Sørensen, M. L. S. 2000. *Gender Archaeology*. Cambridge: Polity Press.

Treherne, P. 1995. The warrior's beauty: the masculine body and self-identity in Bronze-Age Europe. *Journal of European Archaeology*, 3(1): 105-44.