

Bronze Age Beginnings¹

in Southern Scandinavia 2300-1500 BC

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Southern Scandinavia in the Bronze Age stands as one of the most bronze-rich areas in Europe despite the fact that every bit of metal had to be imported. *The question arises how this can be explained and how it all began?* The puzzle underlying this paper is how a region hundreds of kilometres away from the nearest sources of copper and tin (fig. 1) soon became one of the main Bronze Age provinces in Europe north of the Alps boasting such unique material culture as the Rörby scimitars, the sun chariot from Trundholm, and the horned helmets from Viksö.



Fig. 1. Geographical position of southern Scandinavia with present-day Denmark, the southern tip of Norway and southern Sweden within the yellow rectangle. The two red dots mark the nearest sources of copper and tin in Elbe-Saale region of central Germany. Trace element analyses, imports and metalwork style strongly suggest that metals were routinely transported from Saxo-Thuringia along the River Oder across the Baltic Sea to Scandinavia during the early metal age.

Starting with basic data analytical patterns, four periods (fig. 2) can be separated within the time span 2350-1500 BC in Southern Scandinavia:

Late Neolithic I (LN I): 2350-1950 BC

Late Neolithic II (LN II): 1950-1700 BC

Bronze Age Period IA: 1700-1600 BC

Bronze Age Period IB: 1600-1500 BC

This chronology is built on a typology of axe heads, on multivariate statistics of combination

assemblages, and on C14 sequences as well as trace element analyses of the metal showing systematic changes through time. It is a good platform for exploring questions of material and social change.



Fig. 2. The four chronological groups of metalwork in broad outline

The first metallurgy sporadically took place in LN I commencing around 2350 BC. Gold sheet ornaments were manufactured and likely also copper flat axes (fig. 2). In LN II, beginning c. 2000 BC, the local metal production was consolidated as metal was now present in quantities that made it of social and practical use. Low-flanged axes altogether dominate the local production of metalwork. Around 1700 BC, in Bronze Age Period IA spearheads entered the repertoire which continued to include flanged axes, now in a novel and characteristic style. In these three early periods of metalwork production metal objects were themselves primarily deposited ritually in wetlands.

By Bronze Age Period IB, beginning around 1600 BC, the availability of metal had increased considerably and the repertoire of metalwork had become much more varied. Importantly, the first swords emerged coinciding with a general and marked interest in warriors' gear (fig. 2). Burial consumption of metalwork had moreover become more common, and rich male burials in grave mounds of considerable size had begun to appear, coinciding with multiple material-social change.

In terms of raw materials for metalwork, copper prevailed for quite a while. From 2000 BC objects were more consistently made of bronze

albeit with a highly variable tin content. By 1700 BC bronze had become standard. This is a metallurgical sequence corresponding to the central European one.

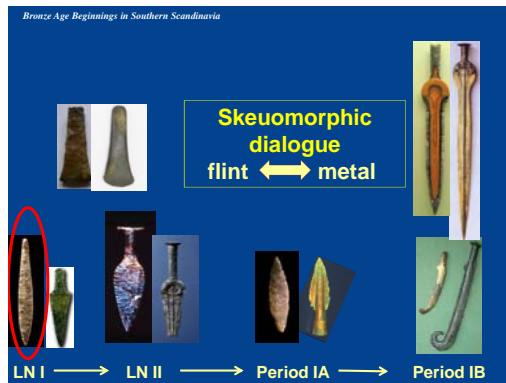


Fig 3. 800-900 years of skeuomorphic dialogue between flint objects and metal objects

Local metalwork production soon came to prevail over imported metal items even though foreign novelties were readily embraced: first flat axes and daggers, then spearheads and finally, the weapon above all weapons, the sword. It is never mere copying of foreign elements but rather ongoing creative translations in which people and materials were linked in processes of mutual becoming.

In terms of pressure-flaked flintwork, by comparison, the onset of the early metal age in the 3rd millennium BC was characterised by industrial and, to varying degrees, specialised craft production of lancet-shaped daggers made from rich local flint. A small proportion of these first lancet-shaped flint daggers (fig. 3) were clearly inalienable possessions while most were commodities made for exchange. This sets the scene for 800-900 years of skeuomorphic dialogue between flint objects and metal objects; in a sense local flint versus foreign metal (fig. 3).

It is not always clear which material, flint or metal, was valued the most and which was the source of inspiration for which. Both are, in fact, creative translations of transcultural trends and thereby essentially external to the Scandinavian communities. In the long run metals took the lead. However, the early metal age from 2350 to 1500 BC is overall characterised by a vastly

experimental spirit probably not limited to the domain of prestige production. Social and material experimentation characterises the entire period albeit consequential especially in the 16th century BC: the Bronze Age Period IB.

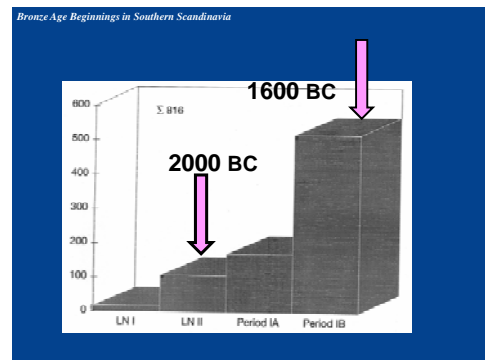


Fig. 4. Relative frequency of metalwork through time

In southern Scandinavia the first significant increase in the use of metals happened around 2000 BC (fig. 4). This point in time was in many regions the social and economic break-through of metal-based forms of consumption permeating otherwise strong local and regional traditions. The next significant increase in the availability of metals happened around 1600 BC; this time with ground-breaking implications for culture and society. Social trajectories were now set that became fully unfolded shortly after 1500 BC with the emergence of an elaborate and wealthy Bronze Age society sustained by a suitable cosmology. This flourishing Bronze Age culture counts the famous water-logged oak coffin burials in prominent mounds, the sun chariot from a bog at Trundholm, the imagery of the Kivik stone cist, etc.

The four southern Scandinavian periods of the early metal age compare well with European chronological sequences. Western Europe was influential in the 3rd millennium BC while after 2000 BC central Europe became the dominant exchange partner for people inhabiting the numerous isles, peninsulas and coastlands of southern Scandinavia.

Macro-regionally across temperate Europe there are two significant turning points in terms of economy, culture, society and interaction: The first turning point is the period around 2000 BC, which was quite literally the break-through of the

Bronze Age in temperate Europe – even in regions without indigenous metal sources. Increased traffic in copper-based alloys sustained the local adoption of metal and metal objects, and vice versa. Regional differences in culture were still pronounced hence indicating that cultural translations of the new pliable substance took place in strong traditional environments.

The period around 1600 BC was a second break-point, this time characterised by increasing cross-cultural similarities across temperate Europe. This included new forms of transculture such as the sword, chariots with four-spoked wheels, horses, as well as metal-technological developments. Quite possibly, new social technologies co-emerged such as novel concepts and tales of warriorhood and cosmology. Regional differences in culture were, in contrast to the earlier turning point, becoming less pronounced, perhaps because creative translations were defined precisely by those interlinked social groups who travelled abroad and undertook raids while travelling.

In Scandinavia the turning point of 1600 BC was characterised by a hot social climate of intense dialogue between the material and the social domains. Innovativeness and experimentation resulted in four competing metalwork styles of war gear. The first great burial mounds were built at elevated spots in the now open landscape, and ritual performances in wetlands were intensified. Imagery on metalwork and on rock panels indicates the coming-into-existence of a new tripartite cosmology in which the sea, the sky, the ship and the axe were important ingredients.

Another general consequence was that effective metal axes permitted the building of big long-houses: first two-ailed and then three-ailed. Some were as long as 45-50 meters albeit the majority was around 20-25 meters in length. Architectural inspiration came from central Europe – travelling as incorporated memory along with loads of metal.

Advancements in metallurgy triggered parallel innovations in other sectors such as house architecture, carpentry, and most especially ship building and the concomitant long-distance

maritime journeying (fig. 5). This latter venture can hardly be reduced to mere economics, especially because an entangled perception of the world could be argued to have existed with three separate realms; the world of humans, the sky world and the netherworld where the dead resided. Horse-pulled ships and wheeled vehicles constituted means of connecting these realms.



Fig. 5. Metal finds and settlements occur in a broad coastal zone. This highlights the significance of maritime travelling cultures. Routine connections were established across the Baltic Sea in large plank-built ships to obtain the metals crucial to social reproduction. Commuting along the long coasts of southern Scandinavia, coast-hugging, distributed the metal and other items locally.

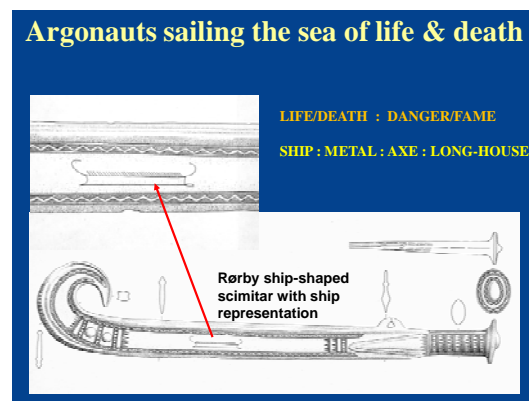


Fig. 6. The importance of the sea and the ship in corporeal and imaginary travelling

Travelling between realms had a double meaning – the voyage to foreign worlds beyond the great sea as well as to the netherworld of the dead. The tripartite worldview can be understood as an influential cultural resource.

Three issues may be emphasised in conclusion. First, metallurgy altered the material platform that

inspired social identification. ‘Becoming metallurgical’ triggered parallel innovations in other domains, notably ship building and long-distance maritime journeying. Through these various enterprises, society gradually changed. Second, a cross-European comparison pinpoints conjunctures in metallurgical and historical trends. Southern Scandinavia, however, invariably brought its own cultural resources to bear upon ‘imports’ from central Europe. Mere copying of foreign material culture is rare. Third, exchange across geographical distances cannot be reduced to economics, especially because a tripartite cosmology co-emerged. This worldview, and the stories it attracted, was a genuine creative resource that may help to explain the puzzle of Bronze Age accomplishments in Southern Scandinavia.

¹ In this pre-circulated paper the main point of departure is my book *From Stone to Bronze. The Metalwork of the Late Neolithic and Earliest Bronze Age in Denmark*. (Vandkilde, H. 1996. Aarhus: Aarhus University Press). New insight has contributed to the conclusions, most of it in press, but the notion of European conjunctures is described in more detail in *Culture and Change in Central European Prehistory, 6th to 1st millennium BC*. (Vandkilde, H. 2007. Aarhus: Aarhus University). The present paper was presented at the conference “Emergence of Bronze Age Societies – A Global Perspective” in Baoji China November 2011.