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Talking Axes, Social Daggers

Deborah Olausson

Abstract in Swedish

Tingen med vilka vi omger oss har symboliska såväl som praktiska innebörder - även bristen på krusiduller på saker är ju i sig en markering. Utmaningen för arkeologen är att kunna utläsa hur människor använder sin materiella kultur i sociala manipulationer såväl som för att utföra praktiska göromål. Ett viktigt sätt att kunna utöva makt över tingen är vid tillverkning, där det finns möjlighet att kontrollera något moment. Artikeln tar upp hur vi kan undersöka de sociala förutsättningarna för tillverkning av tingen. Exemplifiering gäller steget från talande yxor till sociala dolkar under sydsandinavisk neolitikum.

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Introduction

The concepts of form, function, and context are central in archaeology, as indeed they are in all disciplines which study social interactions. Dealing with these concepts is however particularly challenging to the archaeologist, whose primary source of information about human interaction is material culture. The objects which surround us embody meanings which are constantly shifting. Surely it is difficult enough for two people conducting a face-to-face interchange to agree on the meaning of any particular object; how can it be possible for an archaeologist to identify meaning(s) in prehistoric objects?

The question to be explored in this paper has to do primarily with how we can explore the social dimensions of objects. I propose to investigate the mechanisms which permit us to use things for social, as well as for practical, purposes.

The objects shown in fig. 1 are intended to serve the same basic purpose: that is, telling time. Besides conveying this straightforward message to us, the objects embody an unlimited number of other, more subtle, meanings. When we regard them we also receive information

about the owner's sex, age, social position, lifestyle, taste, etc. Let us consider just one of these aspects, namely that of social position. Why does the gold pocketwatch impress us more than the plastic wristwatch? The pocketwatch is aesthetically pleasing to look at, we know that considerable skill was necessary to make the watch, and we know that gold is rare and therefore expensive. The context of the watch, the satin-lined case, also signals that this is something out of the ordinary.

We use similar criteria when we interpret extra-ordinary prehistoric objects as if they were the equivalent of the gold watch. Let us assume that we are capable of understanding how a Neolithic individual conveyed a similar social message to her peers. The question which follows is how the individual who wished to do so procured the gold watch (or a long and beautiful flint axe)? Archaeological texts speak vaguely of a "surplus" which is somehow converted into prestige objects. The mechanism by which this is accomplished is almost never discussed, however. Someone (whether it be a watchsmith or a flintknapper) must be capable of making

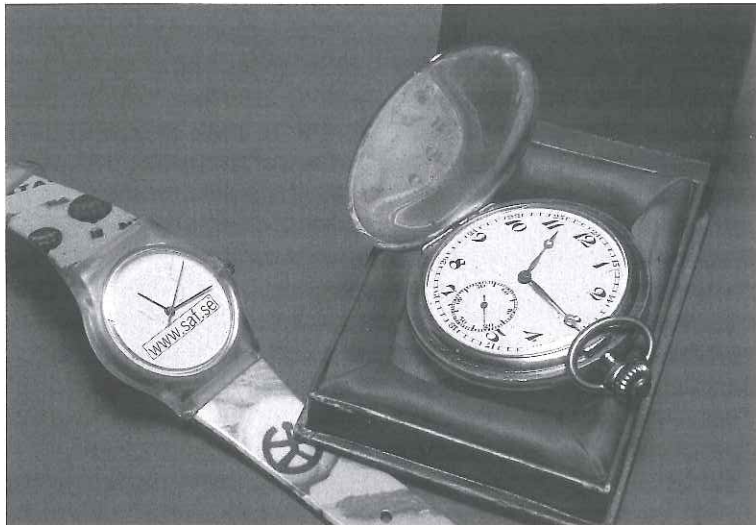


Fig. 1. Two watches—both tell time but they tell a lot more than that. Photo Bengt Almgren, Historical Museum Lund.

objects which can be used to impress others, which leads us to the question of craft specialists.

In an attempt to explain how social stratification arises, Brian Hayden (Hayden 1998) has introduced the concept of the aggrandizer. He defines an aggrandizer as an individual who is ambitious; socially, politically and economically aggressive; and acquisitive. Aggrandizers manipulate other individuals in order to promote their own self-interests. They seek ways to organize others in order to get them to produce more and to surrender some products or labour to them. One of the strategies which aggrandizers can use is to initiate projects which appear to benefit most individuals in a community, but which in fact initiate profound changes which primarily benefit the aggrandizer. They can use rare or labour intensive prestige objects to increase the effectiveness of strategies aimed at engaging large segments of kin or community in their projects. The clever aggrandizer convinces his (aggrandizers are usually men) followers to surrender their surplus to him. In return, he uses this surplus to raise his own - and by extension the group's - status.

Here we see one mechanism by which economic surplus can be converted into something which is useful to impress rival factions - we call this prestige technology. A prestige tech-

nology involves objects which impress us because access to them is in some way restricted. Aspects which can be restricted include:

- raw material
- knowledge
- know-how
- skill.

Many of these parameters might involve a craft specialist — that is, someone possessing unusual or special knowledge, know-how and/or skill. I am assuming here that the specialist and the aggrandizer were not the same individual, since the qualifications required for these “occupations” differ. Qualities necessary for the aggrandizer involve the ability to manipulate the feelings of others and the ability to “sell” an idea. To become a craft specialist requires a period of apprenticeship and long practice and probably a good deal of patience. In fact, some measure of natural talent might also have been necessary to reach a high level of knapping skill (Olausson 1998). We can probably apply Brumfiel and Earle’s (Brumfiel & Earle 1987) ideas about attached specialists here. The attached specialist is sponsored by a patron—an aggrandizer—while making handsome and desirable objects for the patron.

I find this model attractive because it explains how specialization can arise in a society. Freed from the burden of supporting himself or

herself, the budding specialist can devote his or her time to sharpening skills at minimal personal risk, in a society where market forces are absent. The more skilled the specialist, and the more time spent on making something impressive or beautiful, the more satisfied the patron will be. At the same time, it is important for the aggrandizer to maintain control over the specialist and his or her products. This is because the aggrandizer’s position depends on how much other people want the prestige goods he controls. His position is risky, however, as it is not based on economic considerations but rather on social acceptance. If the aggrandizer should lose control over these goods, he risks losing his social power as well. I believe that this mechanism was an important motor in Neolithic and early Bronze Age societies in southern Scandinavia.

The organization of production

When I began this study my original question was whether we could distinguish craft specialists in the Neolithic. It soon became apparent that the question is both broad and complex. If we are to examine the phenomenon of craft specialization, we must look at how production was organized in those contexts we wish to study. This is necessary because the key to using objects in social transactions lies in who has control over production—the craftsperson or a patron. Following Costin (Costin 1991) I can envision four possible ways in which production can be organized:

1. Household production is the simplest form of organizational principle. Production occurs at home to meet the needs of members of the household. Each individual, or at least one individual in each household unit, is able to make what is needed. We should expect objects made in the household to be made of common raw materials and to require a low level of skill. We should also expect household products to evince large variability because of individual differences in maker preferences and skills. Manufacturing debris should be found in household contexts. Manufacturing times can be long (for instance a richly decorated item for a trousseau), or short

(if everyday items are being made). It is not possible for any individual to gain control over household production.

2. Household industry involves production which is organized at the household level but on a scale beyond what is necessary for the needs of the producers. Products from household industry are intended for trade and exchange, and production occurs in short but intensive periods during which the producers are relieved from subsistence activities. Household industry can arise where there is some limiting factor—for instance under conditions of unevenly distributed resources. However, manufacture is not full-time and products are characterized by low skill and short manufacturing times. Production sites should be concentrated—perhaps at raw material sources. An example of this type of production is axe manufacture at quarry sites in New Guinea (Burton 1984). We should expect large quantities of debris at production sites, indicating high production volumes. Further, this debris should be of uniform character as only a limited number of products was made. The products should not be especially uniform in appearance but should vary from craftsperson to craftsperson, so that greater variability would be expected to indicate a larger number of artisans. It should be possible to gain control over some household industries, for instance if raw material sources are limited. However, since many members of the group involved in production are capable of making what is being produced, chances for one individual to gain control over the manufacturers are slight.

3. Attached specialist production. Craft specialists, that is to say individuals who practice a craft as their means of livelihood, can emerge in two rather contradictory types of system. The first kind, the attached specialist, arises when a patron sponsors the specialist. The greater the surplus which the aggrandizer can direct towards production of exceptionally large or beautiful goods, the longer he can support the specialist. The longer the specialist can work, the more skilled he or she becomes, enabling him or her to make ever more attractive goods. There are several potential means for an aggrandizer to gain control here: control over raw material, con-

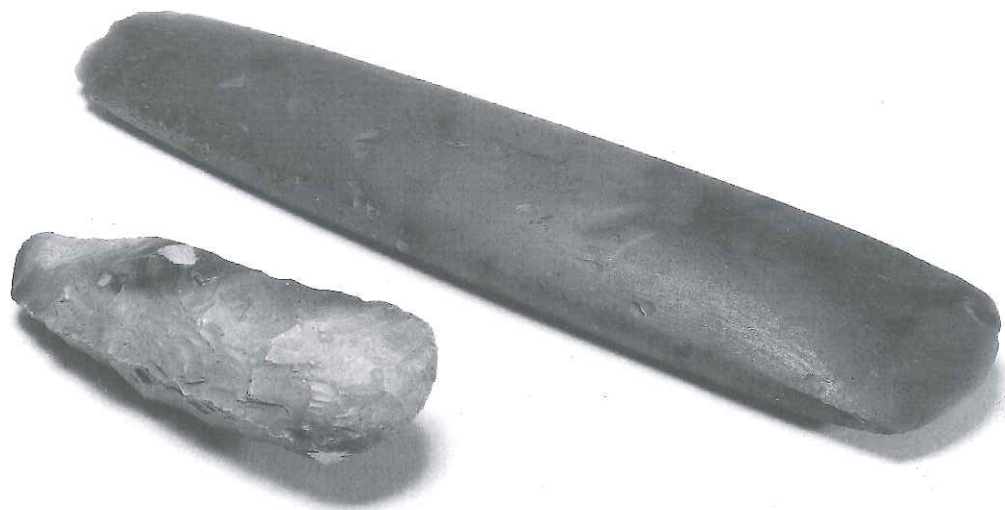


Fig. 2. Two thin-butted flint axes—one is ordinary, the other shows exceptional workmanship. Upper axe length = 39 cm. Photo Bengt Almgren, Historical Museum, Lund.

control over craft skill, control over the crafts-person's know-how or time, etc. Objects made by an attached specialist should be rare, show a high degree of manufacturing skill, and require long manufacturing times. We would expect manufacturing loci to be difficult to find, since a low volume of production would result in low debitage volumes.

4. Workshop production for trade. When the motivation for production is to make objects for trade or for a market the specialist exposes himself to greater economic risks than is the case for the attached specialist. Manufacture in workshop industries is therefore often directed towards utilitarian objects and production volumes are high. In order to minimize risks the independent specialist tries to reduce the time costs for each individual item. It is more economical to concentrate production sites since this minimizes costs for transportation of raw materials and finished products. Production in workshops also makes it possible to invest in tools and equipment which can facilitate production. Craftspersons become specialized at making a limited number of products and are able to reach a high level of manufacturing skill for these products (Clarke 1935). The primary motive for the rise of attached specialists is social, whereas work-

shop production comes about primarily for economic reasons.

I believe this model may help us in investigating how prehistoric production was organized. In the present paper I wish to apply the model to a study of the Neolithic in southern Scandinavia. I propose that the attempts which were made at that time to introduce a prestige goods system, based first on axes and later on flint daggers, failed because it proved impossible for anyone to gain control over the manufacture of these items. The introduction of copper metallurgy, on the other hand, provided new aggrandizers with an opportunity to control manufacturing in a way which had not been possible with flint technology. The reason that the earliest domestic production of copper items in the Late Neolithic was aimed at making axes, rather than daggers, may be because the new aggrandizers wished to destroy the foundations of the old prestige goods system by introducing a new one. This idea was proposed by Helle Vandkilde in her book *From Stone to Bronze* (Vandkilde 1996), where the aim was to explain the introduction of copper technology into south Scandinavian society. My purpose here is to show that this idea can also be used to explain many aspects of the organization of Neolithic flint industries.

Talking axes

The thin-butted flint axe from the Swedish Funnel Beaker Culture should be a likely candidate for a prestige item. I want to begin by examining the organization of axe production in a Funnel Beaker context. In 1981, when I examined a large collection of both thin-butted and thick-butted flint axes, I noted differences in the quality of workmanship on these axes (Fig. 2). There are also a number of authors who have suggested that the longest and most beautiful axes were prestige items which were not intended to be put to practical use (Olausson 1983b). What surprised me, however, was that I was unable to distinguish any clear groups of axes as markedly different from the rest of the population in regard to length and/or knapping quality. In that study I concerned myself only with axe morphology; had I included contextual information my results would have been more enlightening. I believe that it is possible to distinguish axe manufacture in three of the four organizational categories I defined above: household production, household industry, and attached specialist production.

I have already delimited the arguments for the idea that not all axes were made by specialists: many of the axes are poorly made and I find it hard to imagine that any self-respecting craft specialist would have made such a poor quality product. Turning to the contextual information, we can find some evidence for small-scale axe production in a settlement context, which might indicate household production. One example is Bengt Nordqvist's interesting analysis of a

number of sites in Halland, on Sweden's west coast. Bengt carried out systematic analyses of lithic debitage to look for flake types which were diagnostic of quadrilateral axe production or of dagger manufacture. At one site, called Gunnes-torp, he was able to demonstrate that axe manufacture on a small scale had taken place. Diagnostic flakes from all stages of axe manufacture were present here, although there were no axes or axe preforms found. The small amount of debitage led him to conclude that axe production had been intended to fulfill the needs of the local group (Nordqvist 1991). Based on the wide range of flint types used for making square axes, Stafford maintains that it is unlikely that all such axes were produced by specialists. Stafford's own knapping experience has indicated that such axes are not so difficult to make, and that most adults with a basic flintworking ability could have produced one (Stafford 1995b:251).

It is clear, however, that the production of thin-butted axes did not take place within a household context only. Bo Knarrström has applied analytical methods similar to Nordqvist's to a collection from Gislöv, southeastern Scania. He discovered flake debitage from axe manufacture at the settlement, but found that flakes from the earliest manufacturing stages were absent (Fig. 3). Knarrström concluded that axes were in a late production stage when they arrived at the site for finishing (Knarrström 1997:23). Earlier manufacturing stages might have been carried out as a household industry nearer the source of the raw material.

In the example from Gislöv we find importation of partly finished axes to a settlement site,

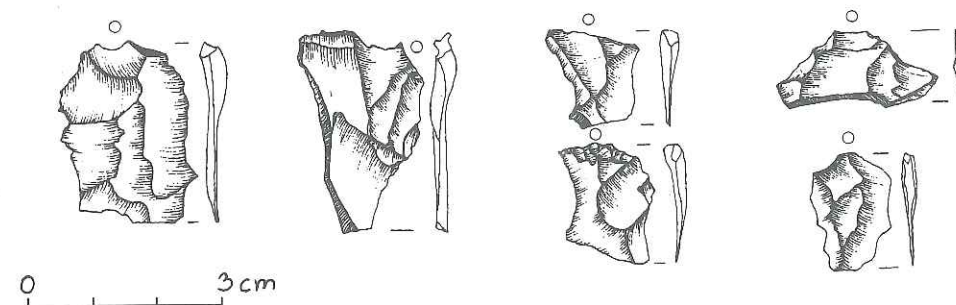


Fig. 3. Diagnostic axe manufacturing flakes (reprinted from Knarrström 1997:Fig. 11).

which indicates that different manufacturing stages may have been carried out in different organizational contexts. There is some evidence from hoards to support this idea. Ebbesen writes that a large number of the 3,000 Scandinavian hoards containing flint objects consist of preforms for quadrilateral axes or chisels. The largest hoard containing only preforms is from Purlund, in eastern Zealand. The find consists of 28 axe preforms, two chisel preforms and two flint nodules (Ebbesen 1980:301). On the basis of modern timed experiments, we know that preforming to this stage takes about ten minutes (Vemming Hansen & Madsen 1983). If that is true, then these 28 preforms represent a total of four and one-half hours of work. This can hardly be characterized as extensive production on a scale commensurate with workshop industry; rather it seems more indicative of manufacture in a household industry.

Both Klaus Ebbesen (Ebbesen 1980:302) and Bo Madsen (Madsen 1993:129) have pointed out that hoards containing axe preforms are commonly located near suitable raw material sources. Manufacture, or at least the early manufacturing stages, is concentrated at locations where raw material is readily available, rather than at settlements. The volume of production seems to be low, which should indicate that we are not dealing with manufacture for trade or exchange by independent specialists. Rather, I interpret these hoards as part of a possible household industry, where a small number of individuals collect at a raw material source to make a certain product. These products, or preforms, are intended to be exchanged with other groups. Later stages of manufacture can have been carried out at settlement sites or at other production sites, such as for example Hastrup Vænget (Vemming Hansen & Madsen 1983).

Hastrup Vænget appears to be a manufacturing site for thin-butted flint axes. The site is located in southwest Zealand near the Stevns Cliff, where continuous erosion by the sea exposes fresh sources of high-quality flint. By means of replicative manufacturing experiments, Madsen and Vemming Hansen were able to demonstrate that type VI thin-butted axes were being made here. Their timed experiments allowed

them to conclude that the amount of debitage at the site corresponded to the production of between 18 and 27 such axes. This meant four to five workdays for two flintknappers (Madsen 1993; Vemming Hansen & Madsen 1983).

Here again, we find a scale of production which is too modest to be interpreted as a large-scale workshop industry. However, on the basis of the evidence presented thus far, Hastrup Vænget could be interpreted in one of two ways: either a household industry or manufacture by an attached specialist. Our only means of distinguishing between these alternatives in this case is by examining the knapping products—the axes themselves or the debitage—in order to gain some understanding of what level of craft skill is involved. Unfortunately, I do not have access to that information.

Finally, I believe we can find some evidence for attached specialist production of thin-butted axes in the archaeological record. Since the model predicts that manufacture by attached specialists is small-scale, we expect it to be difficult to locate manufacturing sites for the products of an attached specialist. However, there are a number of hoards containing exceptionally well-made axes. These axes are often made of what appears to be the same raw material, and similarities between axes indicate that they were made by the same knapper (Nielsen 1984:382). This uniformity in itself can be an indication that we are dealing with an unusually skilled flintknapper with good knapping control (Clark 1986). In those cases in which uniformity is coupled with high-quality workmanship on overdimensioned axes, I think we can be quite confident that we are dealing with specialist manufacture. However, we have noted above that specialists can be independent or attached, and it is vital to be able to distinguish between these alternatives—at least if we wish to find talking axes.

By analogies with modern manufacturing experiments (Madsen 1984; Olausson 1983a; Vemming Hansen & Madsen 1983), we can conclude that the six thin-butted axes in the Rydhave hoard (Skov 1973) represent about 12 hours of knapping and 48 to 72 hours of grinding. Why are these axes lying, unused, in a bog (Fig. 4)? My interpretation is that an aggrandizer has sup-

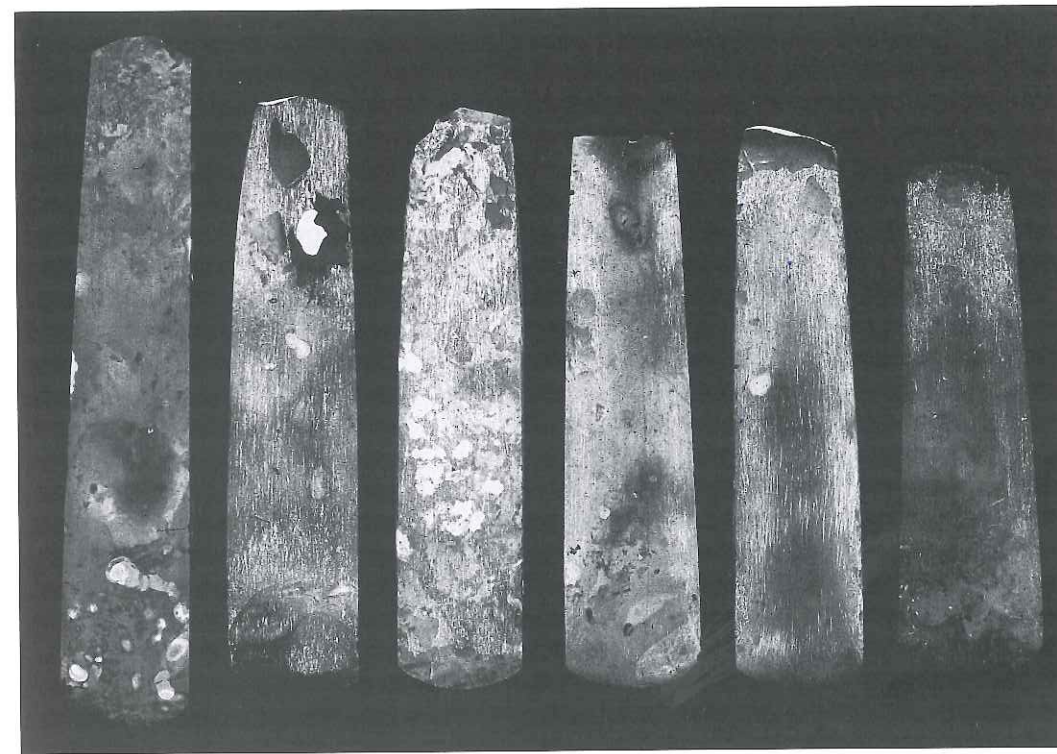


Fig. 4. The hoard from Rydhave, west Jutland, containing six well-made thin-butted flint axes. The longest axe is 44 cm. Photo Torben Skov, Holsterbro Museum.

ported a skilled knapper for two weeks, during which the knapper made these high-quality axes. The axes were exhibited to an admiring public in a ceremony before being deposited in the bog and forever removed from circulation. The aggrandizer used the axes to demonstrate his social power. Hayden calls this “promotional technology”. The purpose of promotional technology is to demonstrate the power and success of the political unit to all visiting elites from neighbouring polities, as well as to members of the sponsoring polity (Hayden 1998). In other words, these axes speak of matters other than the purely practical. Nielsen notes that the highest frequency of hoards with long, polished flint axes coincides in time and space with the building of dolmens. The megalithic tombs can be seen as expressing high rank in Neolithic society, while the axes may be a mechanism for balancing the position of individuals with a high rank. Both of these aspects indicate the exist-

ence of people with sufficient power and influence to control other peoples’ labour (Nielsen 1984:384). In the Rydhave hoard I believe we have a good example of talking axes used for social purposes and made by an attached specialist.

Social daggers

Since this article focuses on only two of the possible categories of prestige objects from the Neolithic, I make a chronological leap from the Early Neolithic Funnel Beaker Culture to the Late Neolithic, without considering the intervening Battle-axe Culture. In fact I believe that the mechanisms for social control during the Battle-axe Culture differed from those we can identify in the early Neolithic Funnel Beaker Culture and during the Late Neolithic (Olausson 1997b). In the Late Neolithic, I would argue, we find a return to attempts to gain social control

through prestige technology which are similar to what we have seen in the Early Neolithic. As was the case earlier, however, it proved impossible to maintain control over the manufacture of potential prestige goods, and the system was ultimately usurped by a new prestige goods system. Attempts at control may have been in the form of control over extraordinarily skillful flintknappers who were capable of making extraordinary daggers. However, since apparently no one was ultimately able to gain a monopoly over dagger manufacture, there were no universally recognizable boundaries between prestige daggers and ordinary daggers. Thus it proved impossible for any presumptive aggrandizer to establish a prestige goods system based on flint daggers.

A study of 600 daggers in the collections of the Historical Museum in Lund indicated that daggers show a wide range of knapping quality. Some daggers are unusually well-made and symmetrical (Fig. 5), while others are poorly made and have large numbers of knapping errors. There does not seem to be any significant correlation

between knapping quality and dagger type. As was the case for the Early Neolithic thin-butted axes, I believe we can identify dagger manufacture in three of the four organizational contexts: in the household, in household industry and by attached specialists. The very fact that the daggers are so numerous—at least 13,200 are known from Scania and Denmark (Lomborg 1975:21; Malmer 1957:175)—indicates that dagger manufacture was not controlled or prestigious. However, it is possible that manufacture of, for instance, type IV daggers was controlled and used for social purposes (Lindman 1988).

There are few known examples of dagger manufacture in the household context. Nordqvist's examination of the collections from Halland indicated dagger production in a settlement context at site 91 (Nordqvist 1991:92). At the Danish Late Neolithic settlement of Gug, south of Aalborg, there is evidence for extensive production of bifacial tools in a settlement context. The collection includes evidence for all stages of production for daggers or sickles, plus a number of dagger rejects (Brøndsted 1966:



Fig. 5. Three examples showing the range in knapping quality to be seen on flint daggers. Photo Bengt Almgren, Historical Museum Lund.

311). A study of the lithic debitage indicates that knapping was carried out by individuals of varying levels of skill. There is for instance a large number of beginners' mistakes, such as step fractures and stacks, to be found in the material. However, the large amount of lithic debris indicates that we are probably dealing with a household industry rather than production for household use (Olausson n.d.). This should preclude specialist production.

I believe we can characterize the production sites at Drengås (Kempfner-Jørgensen & Liversage 1985) and Fornæs (Glob 1951) as examples of household industries. Jørgensen's archaeological excavations at Drengås, on the island of Sejerø, yielded 470 kilograms of knapping debris and rejected pieces. Most of the debitage consisted of large primary flakes from the manufacture of preforms for bifacial tools such as daggers or sickles. My own examination of the material indicated that there are many knapping errors evident in the debitage. It appears that the raw material consisted primarily of the locally available beach flints, which are of varying quality. Kempfner-Jørgensen noted a lack of the usual debris which characterizes settlement sites. He interpreted the site as the result of repeated but short-term visits, during which production was intensive. On the basis of the volume of debitage compared with modern experiments he estimated that between 450 and 670 sickles were produced here, which, he concludes, should have exceeded the needs of the local populations (Kempfner-Jørgensen & Liversage 1985:27).

Another example of household industry production can be found at Fornæs, where sources of high quality raw material might have attracted such an industry. Glob (Glob 1951) calls the site a "veritable flint factory" (p. 24) and speaks of the "thousands of tools" which were produced for export. However, closer examination reveals that Fornæs is quite similar to Drengås, and I maintain that it should be interpreted in the same way. There is nothing to indicate any settlement here; most likely the high quality flint at Sangstrup Klint was an attractive raw material source (Glob 1951:25). Nor do I agree with Glob's interpretation that the site was used for the mass production of flint goods by specialists. Here

too, an examination of the knapping debitage and rejected pieces reveals a large variation in knapping skill, with many beginners' mistakes in evidence. Nevertheless, there are also pieces showing good control and high workmanship in the collections from the site (Olausson n.d.). There are few finished pieces in the material, most of which seems to consist of bifacial preforms intended for sickles or daggers.

Because documentation of the site is poor, it is difficult to estimate the volume of production at Fornæs. I maintain that the low degree of knapping skill and the lack of evidence for standardized production speak against Glob's interpretation of workshop industry production here. Nor can I see evidence for highly skilled knappers engaged in making overdimensioned objects. We should consider Fornæs, like Drengås, to be an example of a household industry where one or several household groups took advantage of the good quality flint in sporadic, but intensive, knapping episodes.

Finally, we must look for high quality daggers which can have been made by attached specialists. I have already mentioned that my examination of 600 daggers revealed limited numbers of each type which I considered to be especially well-made (Fig. 6). Contextual information can be used to confirm that there have been attempts to establish a prestige system based on well-made daggers. Eva Weiler has noted quantifiable differences in quality on flint daggers in Late Neolithic burials in Västergötland. She speaks of a dagger hierarchy in such burials, by which she means a limited number of high class daggers and large numbers of medium- to low-quality and reworked daggers as burial goods. She interprets this phenomenon as indicative of social inequality — the embryo of hierarchical structure of Bronze Age society (Weiler 1994:76 ff.).

A well-made dagger should command respect, since modern replicative experiments have shown that the knapping techniques involved are not easily mastered. John Whittaker, a modern knapper, writes "All over the world, large bifaces were recognized as the epitome of the knapper's skill, and today, when modern knappers fall to boasting, chances are they will pro-

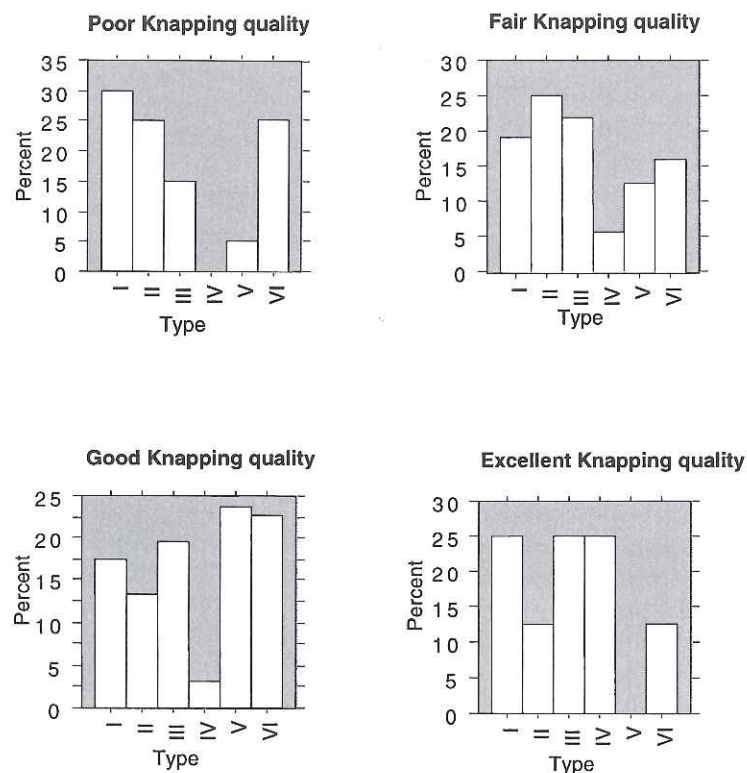


Fig. 6. The distribution by type of knapping quality on 541 daggers from the collections in the Historical Museum in Lund.

claim the thinness of their bifaces, and the even flaking achieved on them, with almost poetic eloquence" (Whittaker 1994:178).

Another contemporary knapper, Michael Stafford, maintains that production of a type IV dagger involved a skill level which took years of training to acquire and was likely beyond the abilities of most utilitarian tool makers (Stafford 1995b:10). In his own experiments, Stafford clocks between eight and 22 hours for making a type IV dagger, setting his average at 12 hours. He also noted that the complete production process generated 3,000 to 4,000 pieces of debitage for each dagger (Callahan 1984; Stafford 1998).

I expect that the hoard from Haarbølle in Denmark (Mathiassen 1942:12) contains the work of a specialist. The 16 daggers in this hoard are well-made and show a high degree of uniformity. They are apparently unused. Even more interesting is an idiosyncratic characteristic at the base of the handle which is shared by seven

of the 16 daggers and which indicates the daggers were made by the same knapper (Olausson 1997a:274). The daggers are type III, which perhaps is somewhat easier to make than type IV. If we use Stafford's average manufacturing time, the 16 daggers represent a large investment in time: 192 hours. We must also bear in mind that reaching the level of skill which would enable an individual to make such daggers is probably a matter of years — if indeed everyone in the population would have the ability to do so (Olausson 1998). Do these daggers represent the inventory of a workshop industry or of an attached specialist? I propose that the Haarbølle daggers are social daggers and that they represent work done under the protection of an aggrandizer. Like the axes in the Rydhøve hoard, these daggers have been used to achieve socio-political, rather than economic, goals. It must have been an impressive feat to be able to "give away" objects which required perhaps five weeks for a skilled knapper to make.

Using things to achieve social position

The development to social stratification begins with the best salesman. This ambitious individual manages to convince his neighbours that the most efficacious way to ensure the success of the group is if he is given responsibility for the group's surplus. He proposes to invest group surplus in social transactions which will put other polities in debt to the group. Grain or cows are bulky and difficult to transport. One means by which the aggrandizer can transform an economic surplus into objects which are useful in social transactions is by gaining control over some aspect of the making of items which can be used as prestige goods. That is why it is important to focus on how production is organized in each specific context under study: to establish whether there is evidence for control over, for instance, resources or know-how. In the two prehistoric contexts I have used as examples, the Early Neolithic and the Late Neolithic in southern Scandinavia, I have tried to show that no individual or group succeeded in gaining full control over the manufacture of thin-butted axes or

daggers of flint. The examples of especially well-made axes and daggers which do exist would seem to indicate attempts at establishing such control. However, both raw material and know-how would have been too widespread to allow for any constraints to be placed upon production, and thin-butted axes and daggers did not prove to be satisfactory as prestige goods in the long-run.

Something very interesting occurs with the introduction of a new technology and a new raw material in southern Scandinavia during the Late Neolithic. Helle Vandkilde has pointed out that the new raw material, copper, was used *not* for making daggers but for making axes. This is surprising, since presumably the best candidate for a prestige good during the Late Neolithic was the dagger. Vandkilde argues convincingly for the idea that certain members of society intentionally broke with the current prestige goods system based on daggers and chose to reintroduce an earlier system in which the axe was the central element. Two parallel systems existed for a time, before the axe/copper prestige goods system superseded the ever weaker flint system (Vandkilde 1996:267 ff.). Michael Stafford has

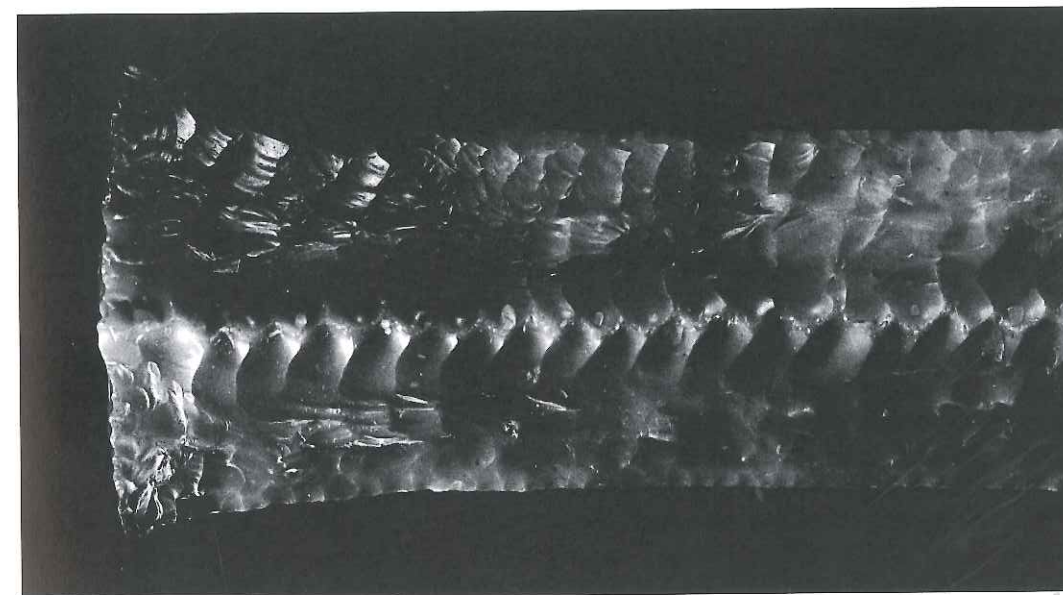


Fig. 7. The stitching on the handle of a type IV dagger made by Michael Stafford in 1994. The regularity and control needed for such knapping is apparent here.

suggested, on the basis of his own knapping experiments, that a copper-tipped tool would have been necessary for making the fine stitching on the best type IV dagger handles (Fig. 7) (Stafford 1995a:5), and Helle Juel Jensen was able to locate traces of copper polish on several prehistoric daggers (Stafford 1998:342).

The flint saber from Fauerskov (Nielsen 1980) on the one hand, and a copper flat axe on the other, can be seen to represent the old and the new elites which vied for social power in southern Scandinavia in the Late Neolithic. The old elite, which tried to legitimate and expand its power base by controlling the manufacture of finer and finer bifacial objects, encouraged its attached specialists to produce ever more impressive objects of flint. Craftsman skill was, after all, the only aspect of flint tool manufacture over which it was possible to gain control. Ultimately, however, this proved to be a fatal weakness. The old system could not withstand pressures from a new system in which, at least initially, it was possible to control both raw material and know-how. The new elite rejected the social daggers and with them, the old order. The Bronze Age had begun.

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