

The Birka Chamber-Graves – Economic and Social Aspects

A quantitative analysis

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Social and economic aspects of the Birka chamber-graves are presented, based on a statistical analysis. An economic differentiation between the chamber-graves is discerned by virtue of estimates of e. g. grave values. The "upper-class people" in chamber-graves apparently can be divided into various levels. There are, however, chambers with low values but which signal social status by their construction. Of interest is the high ranking of some female graves as to wealth and to complexity of grave goods. It is not possible to prove that the graves were intended for foreigners. The chamber-graves at Birka were constructed during a brief period in the 9th and 10th centuries, and should be seen as an ancient international tradition to enhance the status of the leading class - an archaic element connected with periods of incipient urbanization and state formation.

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The Birka cemeteries on the island of Björkö in Lake Mälaren in middle Sweden contain 111 known chamber-graves. There are 119 burials including eight secondary burials in these graves. Altogether about 1110 graves among at least 2300 have been investigated. The chamber-graves at Birka are mainly situated in the Hemlanden cemetery, areas 1A, B and C with 25, 13 and 28 graves, respectively, and in the cemetery north of Borg, areas 2A and 2B with 32 and 10 graves, respectively. There is also one grave of unknown location, called 1D. The Birka cemeteries are shown in fig. 1.

Briefly, archaeological fieldwork on Björkö took place already during the 17th century, though large excavations were not undertaken until the 19th by Alexander Seton and chiefly by Hjalmar Stolpe. The latter began excavations in the Black Earth

in 1871 and continued 1874-1879, 1881, 1888-1890 and 1895. In the 20th century excavations have been undertaken by Gunnar Hallström 1902, Gustaf Hallström 1905, Holger Arbman 1932-1934, Birgit Arrhenius and Björn Ambrosiani 1969-1971, Birgit Arrhenius 1975-1980, Lena Holmquist Olausson 1985-1989 and Björn Ambrosiani 1990-1995. These excavations and the evaluation of their results are described in many scientific as well as popular publications (of note are e.g. Ambrosiani 1988, 1992a, 1992b, 1992c, 1995a, 1995b, 1995c; Ambrosiani & Clarke, H. 1992, 1995; Ambrosiani & Eriksson 1991, 1992, 1993, 1994, 1996; Arbman 1937, 1940-1943; Arwidsson, G. *et al* 1984, 1986, 1989; Callmer 1977; Duczko 1985; Geijer, A. 1938; Gräslund, A-S. 1980; Hallström 1913; Holmquist Olausson, L. 1993; Kyhlberg 1980; Selling, D. 1955; Steuer 1969).

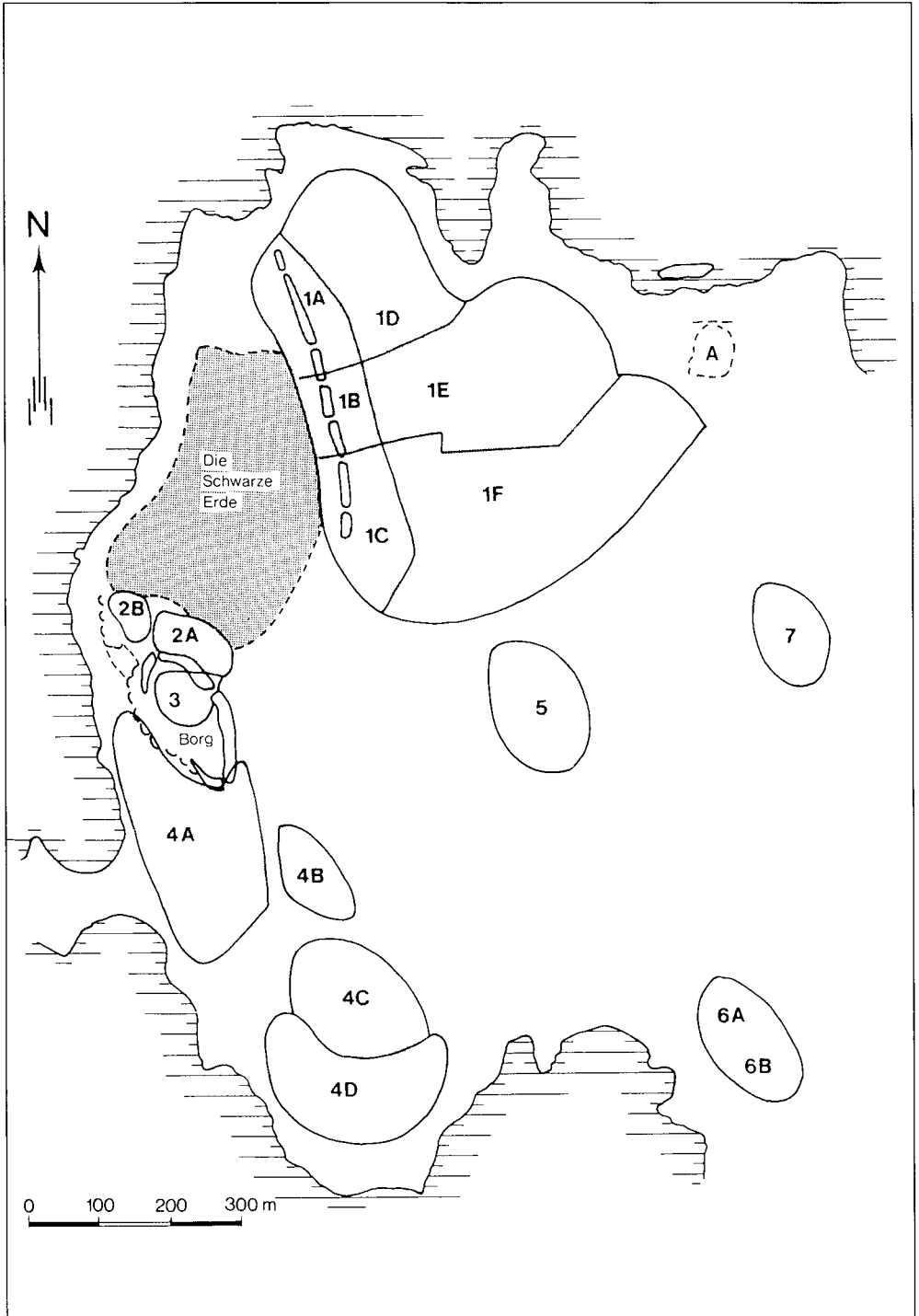


Fig. 1. The Birka cemeteries (after Arwidsson, G. 1984).

Many chamber-graves contain rich grave gifts. There are also graves with few objects and some with no gifts at all. The graves can be used as a starting point for a discussion concerning the population and the social structure.

Anne-Sofie Gräslund considers it likely that the chamber-grave custom is associated with a socially prominent element of the Birka population, though it is uncertain whether this group was distinguished by ethnic, economic, political or other factors, or a combination of them. The extent of the grave goods depended on many factors such as inheritance laws or Christian influence. It is a question whether the chambers indicate "warrior's graves" and "merchant's graves". However, "in some inhumation and cremation burials the character of the grave goods indicates great wealth; while in some chamber-graves the absence of rich grave goods may be belied by a construction of the grave which suggests that the deceased belonged to a high social stratum". Objects which characterize the upper social stratum are, however, found also in cremation burials (Gräslund 1980:46, 77-80).

Chamber-graves at Birka were more common during the Late Birka Period than during the Early Period. There are five definite and ten probable examples of early graves recorded. Those chambers of known location dated to the Early Period were found in area 1B: Bj. 854 and 850 inside the ramparts, 849 and 1151 - probably also belonging to the Early Period - in the ramparts and Bj. 894B - probably also Early Period - outside the ramparts (Gräslund 1980:27-29). The transition between the two periods occurs around 875, though the results from the now terminated 1990-1995 excavations may result in a revised dating (Gräslund, oral information 1995).

Gräslund's thesis carefully discusses the social aspects as regards the population, but it contains no "economic" estimates of the chamber-graves. Socio-economic analyses

including rank, status, etc., belong to the field of social archaeology. There is much written about burial as an indication of rank, status and social role. Scholars differ over almost every issue involved (Dark 1995:88-116). There is thus no way to find out the real motives for equipping the deceased with objects.

Various scholars have thus discussed graves and grave gifts and their possible meaning as regards status and wealth. Furthermore, various theories have been presented concerning the significance of the variation of grave types and the reasons for building monumental graves.

The location of graves could, for example, imply religious differences between those buried or between those burying them, or differences in local customs between scattered communities using the same cemetery. They can also represent customs specific to groups in society. Burials may "assert the rights of the kin of those buried, and may, therefore, form ceremonial or symbolic expressions of social position and of the claims of the burying population: such ceremonial or symbolic complexes are called *monuments*" (Dark 1995:92, 99-100).

Hyenstrand considers that monumentality has been the aim or the consequence of a great effort in grave building. Monumentality can be visual but also non-visual - in the latter case graves with large diameters but with very insignificant heights (Hyenstrand 1979: 21, 41). Chamber-graves without mounds can in my opinion be classified as monumental but non-visual.

There are scholars that point to the possibility that graves mirror the social structure of a former society, for example, that the status of the deceased or the status of the class to which the deceased belonged could be inferred. Such a conclusion could be drawn based on various morphological features in the construction of the graves. In that connection it could be more interesting to analyse the actions of the living in the burial

procedures than to study the buried person. Graves are - it is stated - as much monuments to the living as to the dead. On the other hand, variations in burial customs do not necessarily reflect social reality or status but rather an ideal and desirable social order. Objects in the grave might be, for example, gifts to the dead representing debts, or burial dues, or representations of the role of the dead in life, or just sentimental tokens. Graves can also be seen as ancient memories and thus point to traditions. The burial can be perceived as a formal classification but also as an individual interment for a specific dead person (Bertilsson 1980:146-147, Dark 1995:92; Ericsson & Runcis 1995:34-39; Furingsten 1980:112; Hyenstrand 1980:240-244; Jennbert, K. 1988:88-89; Runcis 1995:23-27).

The selection of various gifts must be related to the possessions of the dead person. The position of the deceased in the society is reflected by the gifts only if they derive from his own property and not from the household/family or from the lineage. Differentiation as to grave gifts may permit conclusions about the wealth of the deceased (Steuer 1982:81-82, 487).

As Burström notes, there are many perspectives to use in archaeology (Burström 1989:14-17).

This article - a summary of my research - is an attempt to present social as well as household-economic aspects by way of a statistical analysis of the Birka chamber-graves - *a case study in social archaeology* (cf Ringstedt 1992, 1994:179-184).

The intention is:

- to survey possible patterns in the distribution of artefacts among the various chamber-grave cemeteries
- to come further than earlier attempts to evaluate the contents of the Birka chamber-graves
- to elucidate various socio-economic relations, if possible

- to discuss chamber-graves as a phenomenon

My estimates make it possible to study the relative ranking/relationship of the chamber-graves concerning grave value or "wealth", and the relative ranking/relationship as to complexity or number of different artefact types. This makes it possible to avoid impressionistic statements.

CHAMBER-GRAVES - A BACKGROUND
Chamber-graves should not be conceived of as a chronologically or geographically isolated phenomenon. They have always been connected with inhumation burials (Lamm 1973b:65). Scholars consider chamber-graves to symbolize the idea of the grave as the dead's residence (e.g. Ekholm 1950:665). Brøndsted considers it only natural that contemporaneous house construction influenced the construction of the chamber-graves (Brøndsted 1936:120, 217).

Rich chamber-graves existed long before the Birka settlement and in varying forms during prehistoric and early historic time. The chamber-grave custom seems to have appeared in the Nordic countries already during the fourth period of the Bronze Age. Chamber-graves have, however, been found in e.g. South America, Egypt and China during prehistoric time. Already during the Stone Age wooden chamber-graves were built. The Stone Age megalithic graves built of stone should also be mentioned in this context. The princely graves in Sachsen-Thüringen from the early Bronze Age (Leubingen, Helmsdorf) and the rich graves from the Hallstatt and Latène periods were covered by mounds and cairns. In the Scythian kurgan-culture there are several chamber-graves (Böttger 1977:162, Chang 1986:327, Lamm 1973a:81, 1973b:66; Stjernquist, B. 1993:383).

Chamber-graves in the Early Iron Age in the Mediterranean area (Cyprus) are very rich. Some were constructed of high-quality

stone masonry. The bodies of the horses which had pulled the hearse to the tomb were also found in the chambers. The Etruscan graves of the 7th century include some chamber tombs under large tumuli, with rich grave goods which might include a chariot, weapons, bronze and silver vessels and gold ornaments. Several Etruscan centres - city states - have produced these rich burials, among others, Populonia, Vetulonia, Tarquinia and Caere. During the Hallstatt period tumuli were constructed over richer graves covering a timber-lined chamber containing swords, personal ornaments and pottery vessels, harness equipment and often a complete wagon. The Vix mound in France is an example of a very rich wooden chamber in which a woman was buried. Rich chambers from the Latène exist, too. These rich chamber-graves indicate increasing social differentiation (Collis 1989).

There are many examples of inhumation chambers in the Roman Iron Age and later periods, for example, several chambers in Cologne and its vicinity. There are many chamber-graves in Frankish, Allemanic and Thüringian cemeteries from the Merovingian period and in Saxon cemeteries from the Carolingian period (Lamm 1973a:81, 1973b:74).

A rich Frankish chamber-grave in Morken, west of the Lower Rhine, contained grave-goods comprising weapons and horse equipment. The Allemanic cemetery near Niederstotzingen in Württemberg had a remarkable large chamber-grave with three male corpses, all supplied with weapons but only the richest equipped with a horse bridle (Dark 1995:91, 94; Müller-Wille 1983:112-114).

In the Scandinavian countries chamber-graves existed especially during the Roman Iron Age, the Migration period and the Viking Age. From the Roman Iron Age the chamber-grave at Lilla Jored in west Sweden must be mentioned, but there are also others. The chest-like construction of the Lilla Jored

grave is such that it can be classified as a chamber. Chamber-graves are rare in the Vendel period (Arbman 1956:412; Lamm 1973a: 85-87, 1973b:69-70; Müller-Wille 1991: 181-187; Stenberger 1971:400-402, 704).

Migration period graves are evidently concentrated to eastern middle Sweden and the Hälsingland/Medelpad region. The famous Högom-grave in Medelpad should be mentioned. Especially in the Lake Mälär Valley and Fyris River area, a socially distinguished class applied the chamber-grave custom. Three rich male chamber-graves from the Migration period excavated on Lovö in Lake Mälär should be mentioned as they differ from most contemporaneous burials in the Mälär Valley as to burial customs and grave equipment. These chambers were probably used for the leaders in the society, as their equipment indicates worldly richness and social status. There are five Migration period chamber-graves in Uppland, indicating the cemetery for a magnate family (Dammell 1994:208; Lamm 1973a:81-88, 1973b; Ramqvist 1990). The Birka chamber-graves during the Viking Age stand out as to their number and richness.

However, during this period - though they are rare - chamber-graves containing horses were constructed in Sweden not only on the Birka burial grounds but also in Uppland (Långtora, Rasbokil, Tibble), Västergötland (Hov in Hällstad) and Ångermanland (Holm in Överlänäs) (Gräslund 1980:34, 42-43).

Several scholars have pointed to the rich chamber-graves in Denmark and in the former Danish areas. Most of the ca. 60 chambers in Denmark - including Bornholm and Skåne and Jutland - are situated in the Hedeby area in the south.

The graves in Jelling, Esbjerg, Hörning, Bjerringhøj, Hingelbjerg, Farsø - all on Jutland - Søllested on Fyn, Stengade on Langeland, Errindlev on Lolland and - in Schleswig-Holstein - the graves in Hedeby, Süderbrarup and Thumby-Bienebek should be mentioned. The unique boat chamber-grave

in Hedeby is a grave above which a boat was placed. In Süderbrarup four chamber-graves have been excavated - all rich male graves of which three contained weapons. Horse equipment was laid in three graves and horses were buried near two graves. Some 10 chamber-graves are located inside the Hedeby city wall. Seven of the graves contain remains of weapons such as spears, swords and shields. South of the Hedeby city wall, five chambers with very rich equipment have been excavated. There are also chamber-graves in Bocklund, north of Hedeby, and in Boel, northwest of Süderbrarup. Chamber-graves have been excavated in the Glasergård cemetery, Bornholm, and in Horsens, Jutland (Aner 1952a:60-78, 1952b:60-115; Gräslund 1980:34, 36, 45-46, 1981:137; Jørgensen 1990:54; Mikkelsen & Smidt-Jensen 1995:5-10; Müller-Wille 1991:181-187; Steuer 1984:343).

Bjerringhøj - the Mammen grave in Mammen parish - is especially famous and is comprehensively described in a publication from 1991 (Iversen, Näsman & Vellev 1991). The grave reflects, according to Näsman, the "expression of the Scandinavian way of life and as part of the Danish society's efforts to preserve independence and identity in a time with a great pressure from powers south of Danevirke". The deceased was a follower of the king Harald Blåtand and probably the male head of a big farm. The silver-decorated axe in the grave indicates that the buried man could have had a significant social position with a political function in the society. The large wax candle in the grave indicates Christian influence, as the lighting of the candle may be interpreted as a consecration of the site (Gräslund 1991:205-210; Näsman 1991a: 163-180, 1991b:253-254).

As to the Hedeby chamber-graves - but also as regards the chambers in Angeln and in Denmark - Aner is of the opinion that they derive from the period in the early 10th century when Swedish Vikings occupied Hedeby and its surroundings. The graves appear in

a district where Swedish colonization took place during a limited period and where the place-names (the "by"-names) indicate Swedish influence. He asserts that the graves can be connected with the leading Swedish class - an exclusive, political leadership, possibly the followers of a king (Aner 1952a:78, 1952b:107-115).

Müller-Wille, too, suggests that the weapons and the equestrian equipment in the Ladby and Hedeby boat-graves could indicate that the buried persons belonged to the "hird", had military and political positions and thus commanded a group of warriors. These rich burials and other groups of chamber-graves belong to the period of consolidation of the Danish royal power (Müller-Wille 1978:633-652).

There are also chamber-graves near Dnjepr in South Russia, in districts colonized by people from the Nordic countries, and also in Poland. Of mention are three unusually large Scandinavian chamber-graves at Gniezdovo, from the second half of the 10th century. As there were pendant crosses and wax candles in the graves, the deceased may well be considered some of the earliest Christians in the Smolensk region of the Dnjepr. The grave gifts indicate contacts with Denmark and southern Norway (Arbman 1952a: 412; Avdusin & Puskina 1988:20-33).

Perhaps boat-graves can be considered a special form of chamber-grave. Schönbeck notes that the custom of burying the dead in a boat is unique to Scandinavia and some neighbouring areas under Scandinavian influence, and asserts that the boat replaced the coffin or wooden chamber as a container for the body (Schönbeck 1983:123).

MATERIALS AND METHODS

Several scholars have statistically surveyed the Birka chamber-graves in order to elucidate social and economic aspects. Leciejewicz considers the chamber-graves to represent the merchants. Lebedev connects the graves with a particular group in the society -

the royal *hird* - and Steuer asserts that rich and poor equipment in chamber graves rather reflect a difference in property owned or a Christian influence. He also thinks that merchants no doubt are among those belonging to the upper class. This leading class can be attributed to different sections of the population, which vary at least as to grave customs if not necessarily as to ethnic origin. Gräslund is critical of all these scholars and considers that more could have been done to use the existing artefacts and grave features in a statistical analysis (Gräslund 1980:78-79; Lebedev 1970:180-190, 1971:11-13; Leciejewicz 1954:141-159; Steuer 1969:212-218, 1984:344-348).

When studying the economic and social aspects of mortuary practices the number and type of artefacts in the graves should be considered as well as their frequency, for example, how common or uncommon a type is in the grave context, the material the object is made of, its shape, decoration and possible provenance, that is, if it comes from far away or is of local origin. The find combination in the grave as well as possible animal sacrifices like horses can give information on socio-economic aspects. The construction of the grave, such as its area, volume and other characteristics, could also be taken into account.

There are various, possible methods for exerting a cursory grave value calculation in order to find out the worth of the "investment" in grave objects. It would be superfluous to survey all conceivable methods in this context or to describe in detail the methods applied. My analysis is based on methods developed by Jørgensen 1990 and Lotte Hedeager 1990.

The approximate socio-economic status of the deceased in the graves (or perhaps in some cases the households sacrificing goods) is assumed to be shown by relative "grave values" based on "type values" of objects in the graves (Jørgensen 1990:179-184). The sum of the type values of all the objects

found in a grave yields the grave value, which is transformed into a relative value (index). A high relative value should indicate an equivalent greater value of the grave goods and hence the greater social status of the deceased.

To estimate type values, the number of all excavated Birka graves is divided by the total number of examples of a type in all the graves (e.g. swords, spears, shields, oval fibulae). The most important criterion has been the possible function of the grave objects. Many artefact categories consist of various models. Each category has been considered as one type in the type value calculation.

Lotte Hedeager's AOT-method (*Antal Oldsags Typer* = number of artefact types) implies that the number of various artefact types in each grave is totalled. Each type constitutes 1 AOT. The method indicates complexity as to grave equipment (Hedeager 1990:102-103).

The sources used for the counting of objects in graves have mainly been Arbman 1937, 1940-1943, Arwidsson, G. *et al* 1984, 1986 and 1989 but also Geijer 1938, 1972/1994 and Selling 1955. The exact number of artefacts in some object categories is uncertain. A modified method has been applied for various artefact categories.

As to textiles, graves with silk fragments have been taken into account because such graves indicate an economic ability to sacrifice products coming from afar. (In 37 chamber-graves there are remains of textiles, of which there is silk in 32 - three double graves, 17 female graves and 12 male graves.) In the type value calculation only the graves are counted, not the fragments. Hägg states that the exclusive artefacts in the richest graves at Birka are not only an indication of wealth; silk, gold and silver embroidery in dresses signalize rank as well. The Svea king's relations with the Kiev court resulted in the acceptance of several south-eastern rank elements. The dresses were thus designed for

people at the highest level of society (Hägg 1983:204-220, 1991:155-162).

Many details of various equestrian equipment have been found. The type value is based on the number of graves with such details - not on the number of fragments. Remains of pottery - shards - exist in the graves. According to Selling, the shards constitute about 750 specimens in the excavated graves and about 350 in the Black Earth (Selling, D. 1955:10, 218). For the type value estimate, I use the number 750 (the grave content) as a rough estimate. I have not taken into account rivets, nails and unidentifiable silver, bronze and iron fragments, nor raw pieces of amber. The estimated values have been rounded off to even figures except for glass beads.

The artefacts selected are classified in the following categories - my subjective listing;

- weapons,
- equestrian equipment,
- jewellery including religious pendants,
- beads,
- personal objects other than jewellery,
- trade related items,
- various tools,
- various household objects.

VALUE OF ARTEFACT CATEGORIES

The chamber-graves constitute about 10% of the 1110 excavated graves. The number of objects in the Birka chamber-graves, according to my estimate and taking into account previous reservations, amounts to about 3272 or 27% of the total number of objects, about 11972. The aggregated type value of the objects in the chamber-graves, however, amounts to about 51% of the value of all objects in the excavated graves (based on the method used).

About 69% of all weapons belong to the chamber-graves. They amount to almost a 71% share as to value. Equestrian equipment in chambers constitutes 63% as to share of the total number of such objects in all exca-

vated graves, but as much as 79% as to value. Tools in chamber-graves amount to a 33% share as regards the number of all such items, but as much as almost 61% when it concerns value. Household objects in chamber-graves constitute about 22% of all such objects but as much as 55% as to value. Trade items constitute around 42% of the total number and have about the same value share.

Beads amount to about 56% of the total number of all various artefacts in the excavated graves, but constitute only about 4% of the total value of the items. However, beads may in reality have had a very high social or symbolic value, which cannot be reflected by using the type value method.

If the categories of jewellery, beads and personal objects are added - all in fact being very "personal objects" - then we can establish that these objects constitute 73% of all objects in the excavated graves. As to value, they amount to about 57% of the total value of excavated grave objects. Looking at their number in the chamber-graves, they amount to almost 62% of the number of objects in these graves and to about 50% of the total value of objects in chambers. "Personal objects" in chambers amount to about 23% of all such objects in all excavated graves, but to about 45% of the value of such objects!

Weighing the figures of the number and value of object categories in the chamber-graves in relation to corresponding categories in all graves results in the following in verbal terms: The value is greater than expected for household items, tools and personal objects in this order. It is slightly more than expected for beads. Amazingly, it is lower than expected for weapons and trade items, and somewhat less than expected for equestrian equipment and jewellery.

One might, on the other hand, conclude that the small deviations for equestrian equipment, jewellery and beads indicate almost a normal state, whereas the positive difference for mainly household objects indicates a special standard and thus has a so-

cial significance. To some extent the same can be said for tools and personal objects. From a social point of view, the high value-relation for various artefact categories could indicate that persons of status were receivers of the gifts.

MALE AND FEMALE ASPECTS

Gender aspects have been elucidated by various scholars in connection with artefacts. Discussions of gender have, among other things, sought to recognise artefacts, structures and burials associated specifically with women, and to use these as sources to explore the status, exploitation, and other aspects of the "social identity" of women in the past (Dark 1995:109-110). Whereas Petré says that, in principle, weapons and weapon details and certain tools belong specifically to male graves while jewellery and certain toiletries belong specifically to female graves, Hjørungdal suggests that it is "possible to think in other terms than those of a dichotomized world made up of complementary and exclusive male-female spheres" (Hjørungdal 1991, 1994:146; Petré 1993: 152).

I have tried to discern what has been sacrificed in connection with burials of men and women in the chamber-graves in a simple "traditional" way. Reservation must be made as to the difficulty of classifying some objects as male and female in the double burials. The following figures are relative (%) and rounded off.

If beads are included, "male objects" seem to be about 33% of the total number and "female objects" thus 67%. If beads are excluded, the relation is 54% male and 46% female objects. The value of the male objects is about 46% of the total and the female 54% (beads included) of the total. The average value for male objects is 25, the average female value 14, whereas the overall average value is almost 18.

I have surveyed the possible *patterning of artefacts in the various cemetery areas*. Some of the results are presented in the following. Tab. 1 illustrates the distribution of artefacts found in the chamber-graves in the various cemetery areas. The relative figures concern total number and value of artefacts as well as the relative distribution into male (M) and female (F) artefacts as to number and value.

Clearly 1A and 1C contain the most objects, followed by 2A, whereas 1C dominates as to value followed by 2A. (1D is only one grave.) The low value of 1A can, for example, be explained by the existence of many glass beads in 1A with a low value. Female artefacts dominate as to number in all cemeteries but especially in 1A, whereas male artefacts dominate as to value in 1C and 2B. The average male and female artefact values in the cemeteries are compared in tab. 2.

Cemeteries 1A, 1C, 2A and 2B indicate a very interesting relation as to value. The male average value dominates, especially in 2B. Probably this can be explained by looking at

Cemetery	1A	1B	1C	2A	2B	1D
Number	31%	9%	29%	21%	9%	1%
Value	15%	15%	35%	24%	10%	0%
M number	25%	43%	37%	33%	31%	100%
F number	75%	57%	63%	67%	69%	-
M value	27%	26%	60%	41%	69%	100%
F value	73%	74%	40%	59%	31%	-

Tab. 1. Distribution of artefacts in the cemetery areas.

the relative distribution of artefacts as to value in various object categories between chamber-graves. This is shown in tab. 3.

Apparently 1C dominates as to value with regard to weapons, equestrian equipment, jewellery and tools. Cemetery 2A has a high share of weapons, too. Beads dominate as to

value in 2A, as do personal objects and household items. Trade related items dominate in 1A. Cemetery 2B has a small value share of household objects but higher shares of weapons and equestrian equipment. The categories "tools" and "personal objects" contain items with high male relative values.

Sex	1A	1B	1C	2A	2B	1D
Male	10	18	36	25	44	3
Female	9	39	14	18	7	-
Male	53%	32%	72%	58%	86%	100%
Female	47%	68%	28%	42%	14%	-

Tab. 2. *The average male and female artefact values in the cemeteries.*

Categories	1A%	1B%	1C%	2A%	2B%	1D%
Weapons 100%	12	14	34	26	13	1
Equestrian eq 100%	5	8	69	2	16	-
Jewellery 100%	18	23	31	20	8	-
Beads 100%	21	6	21	32	20	-
Personal obj. 100%	17	13	26	32	12	-
Trade rel. it. 100%	43	12	21	21	3	-
Various tools 100%	8	5	57	20	10	-
Household it. 100%	14	24	17	36	9	-

Tab. 3. *The distribution of artefacts as to value in various object categories.*

Categories	1AM	1AF	1BM	1BF	1CM	1CF	2AM	2AF	2BM	2BF	1DM
Weapons	10	-	12	-	11	-	10	-	15	-	3
Equestr. eq.	25	25	105	-	80	-	25	-	105	-	-
Jewellery	13	24	18	119	86	47	20	63	22	88	10
Beads	-	1	-	1	3	1	9	2	-	2	-
Personal obj.	9	27	37	63	32	29	94	59	112	37	-
Trade rel. it.	14	13	19	10	5	7	25	8	6	15	7
Tools	8	11	7	36	113	29	20	49	82	12	2
Household it.	12	23	14	88	15	16	65	30	44	11	-

Tab. 4. *Average male/female artefact values per object category and cemetery.*

Of interest, then, is to estimate average values for male and female artefacts as to the various object categories, tab. 4.

This table indicates that the average *male* values for especially 1B, 1C and 2B are high as to equestrian equipment, for 1C as to jewellery, for 1C and 2B as to tools, and for 2A and 2B as to personal objects. It should be noted that 12 horses were buried in 1C, five horses in 1A, two in 2B, one in 1B but none in 2A. Piggott notes that the burial of horses, besides the destruction of the wealth they constitute, provides a status symbol for the afterlife (Piggott 1992: 108-117). The average value for weapons in 2B is higher than for the other cemeteries, though 1C has the highest absolute value of weapons of all cemeteries. One may also note the very high *female* average value of jewellery in 1B and 2A. The reason is the existence of rare objects like a silver charm, a bead spreader, two gilded silver fibulae and a weaver's reed in 2B.

Finally, tab. 5 lists some summary ratios to illustrate social and economic patterns.

Cemeteries (C) are ranked according to number of chambers (1). The table shows relative estimates of the total number of chambers in cemeteries (2) and each cemetery's share of artefacts (3) and share of artefact values (4). The table also shows the average value per artefact in each cemetery (5), average number of artefacts per grave in each cemetery (6) and average artefact value

per grave in each cemetery (7).

Though 1A leads as to the number of chambers, it is evident that other cemeteries with fewer chambers display higher relative shares of numbers and values of artefacts and also average values. Of note is that especially 1C stands out as to ratios 4, 6 and 7 and 1B as to ratio 5. Cemetery 1B is second to 1C as to ratio 7.

If cemeteries are ranked according to value per chamber-grave (ratio 7), 1C leads. If the value 787 for 1C is transformed into index 100, the average value ratio per chamber-grave can be illustrated as follows:

1C	1B	2B	2A	1A	1D
100	87	75	60	36	9

The average value per grave is influenced by the fact that there are a few very rich graves in the various cemeteries. The ratios and relative values indicate, however, that persons of wealth have been buried in the cemeteries containing chamber-graves. Male graves or double-graves with weapons are 16 in 2A, five in 2B, 12 in 1A, eight in 1B, 19 in 1C and one in 1D. These graves represent 61 or about 55% of all chamber-graves.

It could be assumed, but need not be, that mounted members of the royal *hird* or the king's followers - including spouses - are buried preferably in 1C but also in 1A, 2B and 1B whereas the non-mounted and soci-

C	1	2	3	4	5	6	7
1A	31	28%	31%	15%	9	32	285
2A	30	27%	21%	24%	20	23	469
1C	26	23%	29%	35%	22	37	787
1B	13	12%	9%	15%	29	23	685
2B	10	9%	9%	10%	19	30	589
1D	1	1%	1%	-	3	21	69

Tab. 5. Ratios to illustrate social and economic relationships.

ally distinguished members of the *hird* or the king's retinue are buried mainly in 2A but also in the other cemeteries.

EVALUATING AND RANKING THE CHAMBER-GRAVES

I have made an attempt to evaluate and rank the chamber-graves. Three rankings have been undertaken - all based on relative values (using index). *The first* is based on the type values which are used to estimate grave values in order to get an approximate ranking as to "wealth". Extra points have been given to objects in the graves with filigree ornamentation and to ceramic pots of West European, Carolingian origin. Otherwise no account has been taken of the form and size of an object, nor how elaborate the object is, its weight and the metal used. The graves are ranked according to their relative values, the grave with the highest value getting the index 100.

The second ranking concerns the area and cubic capacity of the chamber-graves. Finally, *the third* ranking is based on the AOT-method.

Ranking by using grave values: The mean relative value for all chambers is 4.7, the higher quartile 9.7 and the higher percentile 21.4. *These values indicate that there are just a few graves that stand out with high values in a comparison between all chamber-graves.* In rounded off figures there are in the two higher quartiles about 24% female, 20% male, and 6% double male/female graves. In the two lower quartiles there are about 30% male, 12% female, 5% indeterminate, and 3% double male/female graves. It is apparent that female graves concentrate to the upper half of the distribution, which implies that they are - relatively seen - wealthier, thus representing rich households.

The relative range - in rounded off figures - for the 10 leading chambers (including double graves) is 76 (100.0 - 24.1), for the 10 following chambers 9 (21.4 - 12.9), for the following 10 chambers 3 (12.1 - 9.2) and for

the following 20 chambers 4 (9.2 - 5.1). For the remaining 61 chambers the grave value range is 5 (5.0 - 0). It is apparent that the majority of the chambers are found in the lower range of the distribution of wealth, and that a few graves e. g. the 20 most high-ranking stand out as to relative grave value; in other words these graves might indicate rich households.

Among the 20 high-ranking graves there are four double graves, eight female and eight male. Bj. 750 (double grave) in 1C, has the highest rank, followed by the female Bj. 854 in 1B and Bj 644 (double grave) in 2A. Among the 10 highest ranked are six female graves. Nine chambers from 1C are among the 20 - four of them among the 10 - highest ranked. There are four chambers from 2B, four from 2A, two from 1B and one from 1A among the 20 high-ranking. Altogether 11 graves with weapons are among the 20 high-ranking. Of these, eight contain equestrian equipment.

The mean relative grave value within each cemetery is identified on the index scale for the overall values of chambers, and then transformed into a new index which demonstrates the relative wealth between the Birka cemeteries as follows (rounded off figures):

1C	1A	2B	1B	2A
100	49	46	43	40

Ranking by using area and cubic capacity: As mentioned by Gräslund, the construction of the grave is of importance. Nearly all the leading graves as to size of area in the respective cemetery, also lead as to size of cubic capacity. (The presence of buried horses influences the area and cubic capacity of the chambers. In cases where horses are buried outside the real chambers on platforms, no account has been taken of these platforms.) The mean relative value for area is 47.8 and for cubic capacity 28.9, indicating higher variation, in other words the depth of the chambers varies.

There is thus no systematic, mutual correlation between area and cubic capacity within cemetery ranking (e.g. ranking within 1A or 1B, etc) nor do the measures correlate with the ranking within cemetery for grave values, though there are exceptions. Thus, Bj. 750 (1C) is no. 1 as regards grave value, area and cubic capacity. Among all chambers (overall cemetery ranking) Bj. 750 rates no.1 as to value, no. 3 as to area, and no. 1 as to cubic capacity. *It is tempting to assume that this double grave displaying wealth was built and equipped for a household or persons (or at least one person with accompanying partner) that had a high social and/or political status.*

The weapon grave Bj. 581 (2B) also demonstrates a fairly good correlation within cemetery as regards value (no. 2), area (no. 1) and cubic capacity (no. 2). As to overall cemetery ranking, Bj. 581 ranks no. 9 as to value, no. 13 as to area, and no. 7 as to cubic capacity, thus a rather good correlation. Only Bj. 581 and Bj. 644 had a complete weapon equipment.

Among the 20 high-ranking chambers as to area, there are 11 male, six female and three double graves. Among the 20 high-ranking as regards cubic capacity, there are 11 male, four female, and five double graves. Clearly male graves dominate among the 20 high-ranking as to these measures.

It is also apparent that there are chamber-graves with low grave values (and AOT) but with a big area and cubic capacity. One example is the female Bj. 557 (2A) with ranking no. 7 within cemetery as regards grave value, but no. 1 as to both area and cubic capacity. Regarding overall cemetery ranking, this grave is - though in the upper half of the distribution - only no. 27 as to grave value but no. 1 as to area and no. 5 as to cubic capacity! *This could imply that the construction mirrors the social position of the deceased.*

Ranking by using AOT: The mean relative AOT value is 26.2, the higher quartile 38.1 and the higher percentile 47.6. The deceased

in about one fourth of the chamber-graves thus had a rather high access to various artefact types. The two higher quartiles contain - in rounded off figures - about 25% female, 17% male and 8% double graves, whereas the two lower quartiles contain 32% male, 11% female, 6% indeterminate and 1% double graves. The female graves dominate the upper half of the AOT-distribution and the male the lower. *Apparently mainly double graves and female graves contain the most complex grave equipment as measured in number of artefact types (AOT).*

The relative range - in rounded off figures - for the 10 leading chambers is 52 (100.0 - 47.6), for the following 10 chambers 7 (47.6 - 40.5), for the following 10 chambers 5 (40.5 - 35.7) and for the following 20 about 5 (33.3 - 28.6). The remaining chambers display a rather even distribution as 20 graves have a range of 7 (28.6 - 21.4), the following 20 a range of around 10 (21.4 - 11.9) and the 21 other graves a range around 12 (11.9 - 0).

As many as 13 of the 20 high-ranking graves are female - one of the 20 graves being a double female grave. There are thus five male/female double graves and only two male graves among the 20 high-ranking as to AOT. Of the 20 there are eight graves with weapons, of which five are double graves. Six graves (of which one is female) have equestrian equipment. The four leading graves with weapons are double graves. There are nine chambers belonging to 1A, five to 1C, four to 2A, one to 1B and one to 2B. The mean relative AOT within each cemetery is identified on the index scale for the overall AOT and transformed into the following index:

1C	1A	1B	2B	2A
100	85	77	73	61

Though 1A chamber-graves display the most complex depositing of various objects among the 20 high-ranking, it seems that cemetery 1C demonstrates the overall most

complex depositing of objects.

The high-ranking AOT graves, however, do not correlate with the size of the graves. Comparing high-ranking chambers as to grave value and AOT indicates that only a few correspond in ranking. A fairly good correlation is found in Bj. 750, 644, 581 and 739.

DISCUSSION

Socio-economic aspects: Who were buried in the Birka chamber-graves? Scholars have suggested that foreigners, perhaps merchants, were buried in the chamber-graves. Warriors, chieftains and leaders are other suggestions.

Some chamber-graves display great wealth. They could be an expression of what Dark calls "competitive consumption" or "competitive destruction", indicating how much wealth the "competitor" was able to throw away (Dark 1995:105). An economic differentiation between chamber-graves is discerned, though there are chambers with low values but which instead signal social status by their construction.

The estimates not only display the difference in wealth between the graves but also a social difference through the composition of grave equipment. The AOT-method reflects that female graves, for example in 1A, are complex and take the lead as to variation concerning the deposition of artefact types.

It can be assumed that persons with high social position and status considered it to be consistent with their social status to be buried in or close to prominent places. The city ramparts and the ramparts around Borg are such prominent places. If monumentality of graves implies that they are situated close to the city rampart and to the rampart of Borg, one might state that the chambers fulfill that condition. They are located inside (mainly in the northern part), within and outside the rampart and outside the rampart North Borg. For example, the rich female 1C Bj 854 (rank 2 regarding grave value) is located inside,

the female 1C Bj 825 (rank 6) within the city rampart, and the female 1C Bj 791 (rank 7) just outside the rampart. The two latter are located very near each other. The double grave 1C Bj 750 (rank 1), however, is outside and somewhat distant from the rampart. It seems, too, that other inhumation graves (with or without coffins) have similar locations.

Of great interest is the very high ranking of some women as to wealth and complexity of grave goods. They had apparently access to a wide assortment of objects. This is especially evident when using the AOT-method. It seems thus that the position of women is strong in the population buried in the Birka chamber-graves. The question is whether the women were merchants or were honoured with rich grave equipment and a chamber-grave burial because they were related/married to the upper-class men in society. I rather consider the last explanation to be plausible, as there are many male and double male/female graves displaying wealth though one cannot exclude that some women in life had a prominent position in trade transactions. Though coins and weights are buried with women, these objects probably represent means of payment (cf. Kyhlberg 1980:216-218, 1986:151-152). Interestingly, Hägg states that attributes connected with merchants imply a near connection between trade and a high position in the society (Hägg 1983:216).

However, it is possible to discern a differentiation between the chambers as to wealth and complexity, indicating that the "upper-class people" could be divided into different social levels. Those with a high grave value and consequently a very rich equipment and rare objects constitute the upper level. This group of men and women could be the most prominent in the Birka society (i.e. leading warriors - members of the *hird*/retinue, advisors, merchants, and the spouses of these persons). The other burials with lower relative values could represent a second level of the upper class - persons

which had various important functions, and which of course also could belong to the categories just mentioned.

Though the 20 leading AOT-graves fall within the two higher quartiles as to grave value, only in a few cases do they have very high grave values. If a high grave value is taken as a condition for belonging to the highest social level, then only a few AOT-graves belong to that level. Rather, it seems to me that chambers with a relatively high complexity as to grave equipment - and these constitute nearly half of the chambers - should, despite their not belonging to the highest level, nevertheless be considered to indicate the more well-to-do of the upper class buried in chambers.

Ethnicity: Chamber-graves have been found in many countries internationally seen. They seem in these contexts to be connected with persons of status and with incipient urbanization and state formation. It is especially striking that so many chambers are concentrated in Birka. We see a town apparently conducting exchange, trade and possibly political relations with Eastern and Western countries, a market-place open to foreign influence.

However, there are textiles, objects and pottery with foreign provenance - Western and Slavonic - in the chambers. Furthermore, the bodies are not cremated. Thus it is tempting to assume that the chamber-graves with their special construction indicate that foreign people were buried in these graves, and that e.g. cremation graves were for the native population. This could mean that foreign merchants, artisans, mercenaries, advisors to the king - and their spouses - were honoured by burial in chambers.

Sawyer asserts, however, that chamber-graves of one kind or another are likely to have been developed independently in any area with plenty of wood (Sawyer 1978:61). Näsman takes a similar view and argues that "rich graves, for which a grave chamber could be a fitting setting, can be found in various

regions and in different periods". The deposition of a large equipment necessitates a large space. There is no need for foreign influence. The chamber-grave was a burial type that was latent in Nordic pagan societies and activated when the social conditions created a need for such a particular manifestation (Näsman 1991a:178). This is of course a possible explanation or hypothesis which might apply to the Birka chambers.

There are other scholars who assert that the chamber-grave custom at Hedeby derives from middle Sweden, Birka, because Swedish Vikings exerted political influence at Hedeby during the 10th century. However, there was an extraordinary number of chamber-graves built at Birka during a brief period when it probably had extensive external relations. Before that period we have to go back to the Migration period to find chamber-graves. The construction of chamber-graves at Birka as well as at Hedeby can thus be seen against the increasing cross-border connections of various kinds during the time period.

My conclusion is that it is not possible to prove that the graves were intended for foreigners, though the construction is specific and objects of foreign provenance have been found. Some foreigners no doubt could have been buried in the graves. It is, for example, possible that the king employed foreign advisors or mercenaries, besides the fact that merchants arrived at Birka and stayed for a shorter or longer time and died there. The chamber-grave custom as a fashionable mortuary rite for leaders in central places in states under formation and consolidation was most likely brought to Birka (and Hedeby) via the then existing international contacts - as other scholars also suggest. This explanation seems more plausible to me.

A few Christians may be buried in chambers (Gräslund 1980:83-85). However, in early Christianity many Christians did not use symbols, which makes it difficult to identify Christians. Moreover, "the differences

in the availability of symbols caused by wealth, the ability to produce them, cultural factors and status, all may also limit or prohibit the use of religious symbolism" (Dark 1995:155).

Political context: The chamber-grave custom was widely diffused in Europe and of ancient origin. To go back in time, the Etruscan chamber-graves were constructed during a period of early urbanization and state formation. Chambers are furthermore connected with a period during the 6th century when the formation of small states and kingdoms occurred in Scandinavia, and with royal burials - like the later one in the North Mound at Jelling, Denmark.

According to Hyenstrand, prerequisites for the formation of a Swedish state can be traced back to Roman time. During the Migration Period - mainly the 6th century - and even earlier, some archaeological and historical elements of importance appear. Among them are the chamber-graves and the boat graves. The last-mentioned had great importance, enhancing the ideal of horsemen and warriors and perhaps the concept of state. From 500 to about 750 the Nordic region underwent an incipient "Europeanization", and a social stratification can be seen in the archaeological finds. Judging from ancient sources, Birka seems to be a part of an early state with supremacy, an "organization" of the Svear. Iron seems to have been an important element (Hyenstrand 1996).

Birka and Hedeby had international contacts - commercial and probably political - and were under the influence of foreigners who came, among others, as visitors, merchants, Vikings, missionaries, political emissaries and possibly as mercenaries. Ideas were brought from countries outside Scandinavia.

Both places should be seen against a background of the formation of an empire in Europe, a "Europeanization" during especially the Carolingian period and onwards. It was a period of war but also of increasing

cross-border contacts and transactions, cultural renaissance and Christian mission. The empire, however, split into several kingdoms in the middle of the 9th century. Europe at that time endured invasions and attacks by the Saracens, the Magyars and by the Nordic Vikings but experienced also gradually a renewed urbanization (Linnér 1991:131-178). There were thus many possibilities for Scandinavians to get to know foreign customs and ideas, either abroad or by contacts at e.g. market-places - and for foreigners to come to the market-places/central places in Scandinavia.

Chronological aspects: The chamber-graves at the central market-place (town) Birka appear during a very brief time period that lasted less than 100 years. A few graves belong to the 9th century but most to the 10th. Though there are a few chambers in Sweden from the Viking Age, the chambers at Birka stand out as to concentration and quantity. At approximately the same time, chamber-graves were constructed at Hedeby - also a central market-place (town) - and in its surroundings. Before the Viking Age only a few chamber-graves date from the Vendel Period but more from the Migration Period and the Roman Iron Age, as stated above. The brief period of chamber-grave burial in the later stage of Birka's existence confirms the assumption that this mortuary custom was connected with a period of consolidation and urbanization.

CONCLUSIONS

Chamber-graves were used for people requiring special burial customs. They are connected with wealth and social status, which is proved by the statistical analysis. Horse burials in chamber-graves demonstrate, for example, wealth and status. Equestrian equipment, horses and weapons symbolize power and warriors or at least a manifestation of status. A few chambers are very wealthy and stand out as to relative richness as shown by grave values, indicating a higher

social level than the others.

Relative AOT-values indicate that the complexity in the composition of the grave gifts is rather high for a significant part of the chambers, notably in cemeteries 1A and 1C. Women seem to have had a high social status in the Birka society, according to grave equipment indicating wealth and complexity.

The chamber-grave custom has appeared in various forms if seen in the broad perspective of time. Chamber-graves at Birka seem socio-politically to be connected with an upper class - leaders or followers of the king, and their spouses. The deceased belonged to, among other things, the *hird* or to the retinue or had other important functions as advisors, merchants, etc.

The chamber-graves at Birka should be seen as an expression of an international socio-political phenomenon and as an ancient

international tradition to enhance the status of the leading class. It is an archaic element connected with the development of power centres, chiefdoms, kingdoms, and periods when incipient urbanization and state formation were under way.

The location of the chambers is no doubt an expression of a conscious act. By using the archaic burial custom for those belonging to important socio-political circles near the king and by placing the chambers in or close to the ramparts, the exclusive status of this upper class is underlined. The location should be seen as symbolic - the leading class even after death is protecting the town, supporting the king, and upholding the existing political system.

English revised by Laura Wrang.

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