## The Chronology of Weapons from the Pre-Roman Iron Age in Mainland Sweden and Öland

## BY PÅVEL NICKLASSON

Abstracrt

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The Pre-Roman Iron Age is one of the better known and most excavated periods of the Iron Age in many parts of Sweden. Excavations of large cemeteries have yielded a vast quantity of material. This is especially true for the later Pre-Roman Iron Age. Despite this, no one has bothered to erect a chronological system. Since the 1950s only a few large compilations of Pre-Roman grave material, excavations reports and minor articles with the focus on chronological questions have been published. This article is an attempt to establish a chronology for the weapons from the Pre-Roman Iron Age, especially for the later part of the period. Most of the finds come from graves, but some of the material is from deposits. The article is part of a Ph.D. project on weapons from the Early Iron Age from the Swedish mainland. The discussion on the material from Öland is to a large extent based on published material and not first-hand observation.

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## History of research and the lack of a Swedish chronology

The first major work on the Pre-Roman Iron Age on the Swedish mainland is a paper by Arne from 1919. In this he tries to discern regional groups based on different burial customs. He also discuss the extent of the settlement in different parts of the country. This work can be seen as a beginning of a trend in Swedish archaeology, which was predominant from the twenties to the beginning of the sixties. During this period many compilations of material from different parts of Sweden were published. Comparisons were made between the material from different parts of the country, and the differences between regions were most often attributed to ethnic differences. Many of the archaeologists during this period were not primarily interested in questions of fine chronology, and were satisfied to date the artefacts

to the Montelian periods I–III. Many publications have the character of find catalogues. Furthermore most of the publications were not exclusively on Pre-Roman material, but contained finds from the whole Iron Age.

Among the most important publications are Sahlström's excavations of cemeteries in Västergötland (Sahlström & Gejvall 1948, 1954), and his compilations covering major parts of Västergötland (Sahlström 1932, 1939, 1954; Sahlström et al. 1928) and Oxenstierna's find compilations from Västergötland and Östergötland (Oxenstierna 1945, 1958). From the Mälaren region no major compilation with material from the Early Iron Age has been published. Some important cemeteries were however published by Ekholm (1938, 1939, 1944, 1946).

The major contributions to pre-Roman chronology have been based on material from the islands of Gotland and Öland in the Baltic Sea. Especially the publication by Almgren and Nerman (1923) on the material from Gotland have been widely spread. In his dissertation from 1956 Nylén put forward a Gotlandic chronology for the late Pre-Roman Iron Age based on four periods, A-D. Nylén declined to date the Gotlandic weapon graves closer within the system, partly because of the common Swedish phenomenon that the weapons are the only grave goods in the graves. The weapons are therefore difficult to correlate with a general chronology. Another reason for not placing the weapons within the chronological framework is that there is a special Gotlandic burial custom, according to which certain weapon graves were reopened and new weapons of late types deposited alongside the original set (Nylén 1987). This kind of grave has not been found in other parts of Sweden. Of course this makes it very difficult to erect a working chronology and to know which weapons combine chronologically. A large portion of the material from Öland has recently been very well published in Ölands järn-åldersgravfält I-II, with more volumes to come. A suggested chronology for weapons from the Pre-Roman Iron Age has been put forward by Rasch (1991, 1994a). Rasch does not use the Montelian periods I-III. Instead, she works with the more continental periodic system with phases A-D, where A represents the Pre-Roman Iron Age and D the Migration Period. Rasch makes the assumption that the weapon burial custom first began on Öland in the Roman Iron Age. The Pre-Roman material is therefore put in periods B1a and B1b, and not, as one would have expected, in period A. I now agree with most of the relative datings of the different weapon types. The late dating of the material, however, seems not to be correct and leads to difficulties in the chronology for both the Pre-Roman and Early Roman Iron Age. Further complications arise when other graves than the weapon graves are

drawn into the chronological debate (Rasch 1994b). In this paper only the Pre-Roman weapon graves will be discussed, however. The finer points of chronology and the differences between mine and Rasch's chronologies will be discussed later on in the paper. In conclusion, there seems to be no working general chronology for the Swedish mainland. Nylén's chronology from Gotland could be used as a general reference but does not discuss the weapons. Rasch's Ölandic chronology seems to be partly incorrect and has to be reworked. To transfer the chronologies from Öland and Gotland to the Swedish mainland would be a crude method. My impression of the Pre-Roman Iron Age is that there seem to be strong regional groups with subtle differences compared to neighbouring areas. Instead of just pressing a few graves from the Swedish mainland into the chronologies of the neighbouring areas, the material from the mainland should be more closely studied.

From the neighbouring countries major works on the Pre-Roman Iron Age chronology have been published by Becker (1951, 1961, 1990). The first two publications are mainly concerned with pottery. Pottery should not be so possible to date as closely as metal artefacts, but great efforts have been made to date the metal artefacts within the pottery sequence, by Becker and others. In the third work Becker published a major cemetery on Bornholm, Nørre Sandegård. Becker put forward a chronology for the metal artefacts which has more in common with Nylén's Gotlandic chronology than with his own Jutlandic pottery sequence. The cemetery from Nørre Sandegård contained no pre-Roman weapons, however. Becker works basically with a three-period chronology which has been modified over time. In a couple of recent articles criticism of Becker's chronology has been put forward (Jensen 1992; Martens 1994). In short, the problem seems to be the transition between early and late Pre-Roman Iron Age.

Some important papers especially focus on the chronology of weapons in Denmark

	Lance Salo A	Lance Salo B	Shield 1	Lance type 1	Lance type 1 var.	Sword type 1	Sword type 3	Trianfular brooch	Import	Shield type 2	Sword type 2	Double-edged sword	Brooch A 67/68	Lance type 2	Razor	Ferrule to lance	Sword built in grip	Lance type 2 var.	Shield type 3	Lance w. grooves	Late swords	Swords var-	Lances var.	Lance Ilkjær 22?	Lances per. B types
Ö. Eneby Ringstad	x																			÷					
Veta Gottlösa		x																							
Skänninge Jvgstn		x	Gro	up	1																				
Fivelstad Ölstorp			x	x	10											x									
Sjögestad			x				x																		
Kuddby Hjärterum			x	x		x		x	x																
Heda Jussberg				x							x						Gr	bup	2						
Kärna Lagerlunda				x				_	x	x		x												_	
Kärna Lagerlunda									x		x			x	x	x									
Skarkind Eggeby						_						x	_						_						
Ö. Husby Skälv				L			_				x?			L				x	G	ou	3				
Örtomta Göstad																	x	х	_						
Ö. Eneby Fiskeby																x	x	x				_			-
Älvestad Örvad S. gård																	x		G	rou	<u>p 4</u>				
Borg Klinga																			x						
Táby Ansätter																			x		_				
Skärkind Snöstorp																				x	Gr	pup	5	_	
Heda Södregården																									x
Borg RAĂ 168																					6	rou	D 6	x	
Sjögestad																						x	x		
Ö. Eneby Ringstad mo			x?			x		x				x							x						

Fig. 1. Combination diagram of Pre-Roman Iron Age Weapon finds from Östergötland.

(Jørgensen 1968, 1990; Nielsen 1975). Jørgensen and Nielsen both try to put forward a chronology for the weapons from the later Pre-Roman Iron Age. Unfortunately, just a few finds are illustrated in the papers, so it is hard to comment upon their chronology and compare it straight off with the Swedish finds. A paper by Dobrzanska and Liversage (1983) presents a chronologically important cemetery at Harnebjerg on Langeland. The chronology is however discussed in the local context and the question is how the chronology works in a general context. Kaul's and Randsborg's new publications of the Hjortspring find are of course important for the discussion of the weapons from the early Pre-Roman Iron Age (Kaul 1988; Randsborg 1995).

Of course Salo's work (1962) on early pre-Roman lanceheads should also be mentioned here. In conclusion the Danish material is not satisfactorily published, even if there are some very good papers and publications of important material. Discussions about chronology rest on firmer ground in the Danish research tradition than in the Swedish. Major works on the chronology of the Polish material are Dabrowska (1988) on the Przeworsk culture. The suggested chronologies from the different parts of northern Europe should be used as frames of reference and comparison for the Swedish material. It seems that the material from eastern Sweden and the islands of Gotland and Öland has more in common with the Polish material than with the

	Lance Salo A	Lance Salo B	Shield 1	Lance type 1	Lance type 1 var.	Sword type 1	Sword type 3	Triangular brooch	Import	Sword type 2	Shield type 2	Double-edged sword	Brooch A 67/68	Lance type 2	Razor	Ferrule to lance	Sword built-in grip	Lance type 2 var.	Shield type 3	Lans w. grooves	Late swords	Swords var.	Laces var.	Lance Ilkjær 22?	Buckle	Lances per. B types
Tidavad Blackgården	х	x																								
Björsäter Kyrkbacken		x	Gr	bup	1	_																				
Horn Kyrkbacken			х	x					x	x																
Bjurum Mårby				x					x	x							í a l				1 1 1					
Göteve Lars Andersgården						х					Gro	up	2-3													
Skeby											х	Gr	bup	3												
Vinköl Frösviken																	x	Gro	up	4						
Hom Kyrkbacken																					x				I	
Järpås Dyrehögen																										x
Ö. Tunhem Källegården																						x				x
Ryda Helås Halvås																						x				

Fig. 2. Combination diagram of Pre-Roman Iron Age Weapon finds from Västergötland.

Danish. Hachmann's work from 1961 is an attempt to establish a common chronology for all northern Europe (Hachmann 1961).

### Material

Weapons are a minor find category during the Pre-Roman Iron Age. The finds are unevenly distributed over Sweden. It seems that the weapon burial custom was introduced during the Pre-Roman Iron Age only in major agricultural areas like Västergötland and Östergötland, the Baltic islands and the Mälaren region. In other regions the weapon burial custom was not introduced until the Roman Iron Age. The material may be arranged in five regional groups. These contain an uneven number of weapon finds, and in this essay I focus on some of them more than others. Since my study primarily concentrates on the material from the Swedish mainland, I have only studied part of the material from Öland and Gotland first-hand.

1. Västergötland and Östergötland and Öland (Västergötland 11, Östergötland 22 finds. The finds from Öland extracted from the published material in Ölands järnåldersgravfält I–II).

- 2. The Swedish west coast, northern Halland and Southern Bohuslän (6 finds altogether)
- 3. The Mälaren region (Uppland 13, Södermanland 5 and Västmanland 6 finds)
- 4. Skåne (stray finds of early pre-Roman lanceheads in bogs, stray finds from the late Pre-Roman Iron Age, very questionable whether these come from graves, see below.)
- 5. Gotland, not featured in this essay

Skåne and Blekinge are a special case. Some weapon graves should be dated to the later Pre-Roman or the very beginning of the Early Roman Iron Age. It is however impossible to separate them from the Early Roman Age types, so these finds are not considered in this article. A doubleedged sword from Nosaby in Skåne (SHM 7349 C) found together with two lanceheads may be of the Pre Roman La Tène model with bellshaped lower grip. At least this is shown on the drawing published in SFT 1884. When studying the sword in the Historical Museum, however,

	Lance Salo A	Lance Salo B	Shield type 1	Lance type 1	Lance type 1 var.	Sword type 1	Sword type 3	Triangular brooch	Import	Shield type 2	Sword type 2	Double-edged sword	Brooch A 67/68	Lance type 2	Razor	Ferrule to lance	Sword built in grip	Lance type 2 var.	Shield type 3	Lance w. grooves	Late swords	Swords var.	Lnces var.	Lance Ilkjær 22?	Buckle	Lances per. B types
Algutsrum Törnbotten	Г		x																			Ċ.				
Gårdby Övra Ålebäck A2			x		x	xx			x					_												
Gårdby Övra Ålebäck A10				x			x		x																	
Högsrum Karums Alvar			х			x				Gr	bup	2														
Gärdsllösa Sörby St. A182	Γ				x						x?															
Glömminge A1										x	x			x												
Gårdby Övra Ålebäck A6	Γ									x	x			x												
Gärdslösa Sörby-St. A142	Γ							A		x	x												x			
Gårdby Övra Ålebäck A8	1			Γ							x															
Gārdslösa Sörby St. A157											x?			x		G	rou	53				1				
Glömminge A8											x?			x												
Gārdslösa Sörby St. A6:I										x	2														1	
Gärdslösa Sörby St. A6:II										X										1					x	
Gärdslösa Sörby St. A6:III										x			x					x				x				
Glömminge A7																	x	x	Gr	bup	4					
Hulterstad Alby																			x			x	Gro	ıp 5		
Gärdslösa Sörby St. A147	Sv	ord	sc	abb	ard	fitti	ngs	fer	rule	to	and	e,	wo	rdg	rip											
Gårdby Övra Ålebäck A4	_	igle	_																							
Gårdby Övra Ålebäck A13		ord					ngs	sh	eld	ive	s															
Gårdby Övra Ålebäck A14		ord																								
Högsrum Karums Alvar																					x					x

Fig. 3. Combination diagram of Pre-Roman Iron Age Weapon finds from Öland, extracted from Ölands järnåldersgravfält I–II.

no such details could be discerned. This could of course be due to the decay of the iron. It seems, however, that Skåne is similar to Sjælland, with very few or no weapon graves from the Pre-Roman period (Liversage 1980). In the case of the Nosaby find there is no report of bones or grave construction. From Skåne there are also some finds of lanceheads of bone or antler. These are generally dated to the early Pre-Roman Iron Age. At least two of these finds have been made at settlements, in wells. The rest of the lanceheads seem to have been made in bogs, although the information about their context is very meagre. From the river Segeå outside Malmö, there is a stay findof eight lanceheads. This may perhaps be interprited as some sort of depot or war booty sacrifice, similar to the Danish Hjortspring or Krogsbølle finds.

Of course the small number of finds makes a detailed chronological discussion difficult. Another difficulty is that few graves contain other dateable artefacts making it possible to correlate the weapons with other artefacts. The chronology must accordingly rest on the relative chronology of the weapons themselves. Many of the finds were not excavated by archaeologists, but found during gravel digging. In fact many cemeteries were noticed only after a weapon grave was found. No one knows how many other graves were destroyed before the conspicuous weapons were found. Of course this is an important source-critical point. The most common burial custom was the cremation pit or a pot containing the ashes in a pit. This may, however, favour the recovery of the complete contents of many graves, even if not excavated by archaeologists. I think therefore that this kind of source criticism is more important when discussing other features than the typology and combinations of the artefacts.

## Västergötland, Östergötland and Öland

It seems that a common chronology for weapons could be put forward for the Pre Roman Iron Age for this large area. The relatively large material makes it possible to divide the material into six chronological groups.

**Group 1.** Lanceheads of Salo's types A and B (Fig. 4). Type A lanceheads occur only in deposits. Type B occurs in graves. The most interesting find is from Tidavad in Västergötland. This could be a major weapon deposit. At least 17 lanceheads were found. It is difficult to place this group chronologically. There may be chronological differences between the two types as discussed by Salo (1962). Since the lanceheads in no instance are found together with other dateable

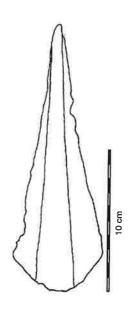


Fig. 4. Lancehead from Kyrkbacken, Björsäter parish, Västergötland, Skara museum 6456.

material, they could not be dated more closely or related to other artefacts. Similar lanceheads occur in the Hjortspring find (Kaul 1988; Randsborg 1995). This find has been radiocarbon dated to ca. 350 BC. Although this may seem to be an early dating, group 1 should probably be placed in the early Pre-Roman Iron Age.

Group 2. This consists of shield bosses with

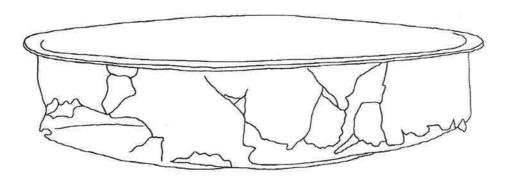


Fig. 5. Weapon grave from Hjärterum, Kuddby parish, Östergötland, Östergötlands läns museum ÖLM 3756.

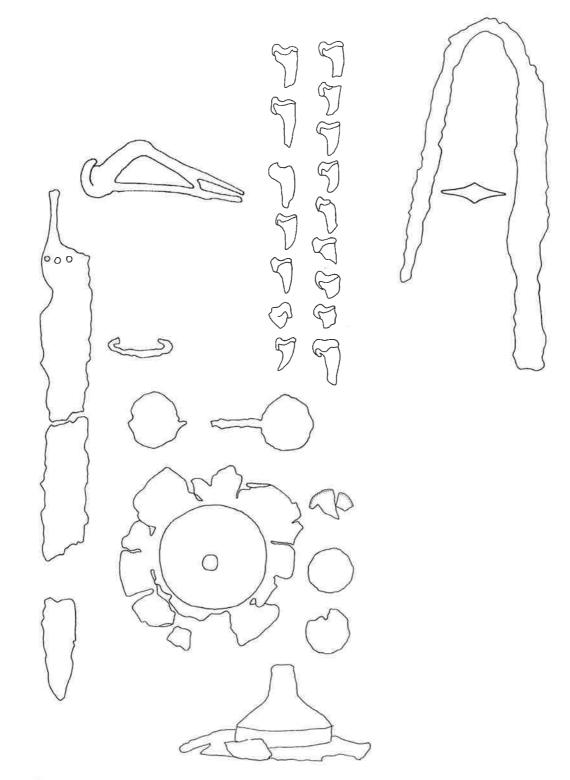


Fig. 5 cont.

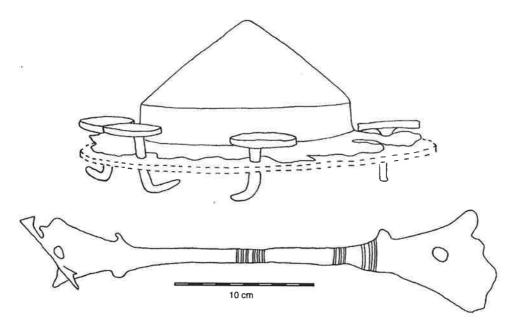


Fig. 6. Shield boss and shield handle from Skeby parish, Västergötland, Skara museum 87447.

spikes with four big round rivets holding the shield boss to the shield boards and a shield handle with round discs at the ends (Fig. 5). On the evidence of shield edge fittings, the shields seem to have been rectangular in shape.

These shields (my shield type 1) are combined

with single-edged swords with a straight hilt (sword type 1, Fig. 5). This sword has no rivets in the hilt. The rivets are instead placed in a single row along the lower part of the blade. This kind of sword is uncommon, and swords of type 2, described below group 3, occur in group 2 too.

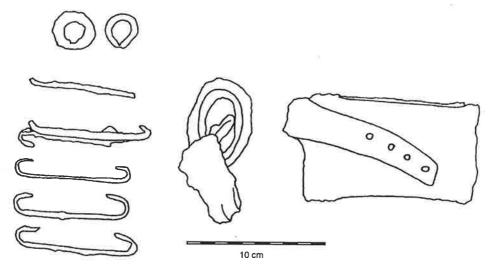


Fig. 7. Weapon grave from Odenslunda, Fresta parish, Uppland. (Studied with gratitude to R. Edenmo, UV-Mitt, Stockholm.)

Swords of first type are however not found in late combinations, and should be given an earlier dating. The pre-Roman single-edged swords are very different from the swords from the Roman Iron Age. The grip is differently moulded. Most usually the swords from the Roman age have two to four rivets in the hilt. The pre-Roman swords, not counting type 1, have more, up to 25 rivets. The next difference is in the length of the swords. The pre-Roman swords are in most cases between 70 and 80 cm long. The width may be as much as 8 cm. The shorter specimens are from the later pre-Roman groups. No single-edged sword from the Roman Iron Age is more than 65 cm, and the longest are dateable to period B1. In general, the single-edged sword became shorter over time and had fewer rivets in the hilt. The points of the pre-Roman swords are usually rounded, while the swords from the Roman period most often have a sharp point. The pre-Roman and Roman single-edged swords must have been used in been could have been bulky and awkward in combat. A few of them show damage or repairs on the hilt (Fig. 8); the sword hit so hard that the hilt broke with the impact. The Roman Iron Age was probably used as a cut-and-thrust weapon, in some cases more like a rapier.

The lanceheads are long, up to 50 cm, with a cross-section of the blade as in fig. 5 (lance type 1). These could be ornamented in different ways and were often referred to in earlier literature as "of East Germanic origin".

Five weapon burials from the Swedish mainland and two from Öland had been put in imported cauldrons of bronze, bronze and iron, or in two cases, iron. Roman imports have been extensively treated by Eggers (1951, 1955) and for Scandinavia, Lund Hansen (1987). The types are Eggers' types 5, 10, 67 and 74. It seems that these early imports have a close connection to the weapon graves, even though there are graves with imports but no weapons, for instance, in two cases from Heda in Östergötland. In only one weapon grave there is a fibula. This is a triangular brooch (Kostrzewski's K-type). This kind of bro-

och is however found in two other graves with early imports with no weapons. It seems therefore that the Group 2 weapon horizon should be placed in the same phase as the triangular brooch and early imports.

A variant of sword is a specimen from a grave in Sjögestad in Östergötland (SHM 15769:B). This sword has a straight hilt with an indent below the grip. This kind of sword is common on Gotland (Nylén 1955, pp. 299 ff.). This sword could have been imported to Östergötland from Gotland.

Group 3. This consists of flat conical shield bosses with relatively narrow rim and round rivets, which are smaller than in group 2. They are decorated with small dots alongside the rim of the rivet. This is combined with a handle with triangular ends (Fig. 6). These shields seem also, judging by the shield rim fittings, to have been rectangular (shield type 2). Shields of this kind are most often combined with a sword with a curved grip (sword type 2, Fig. 7). These swords have rivets in the hilt, which is a main difference from swords of type 1. There is an indent just below the hilt, but compared to the Gotlandic variant the grip is curved. The lanceheads are rather short, between 15 and 25 cm long with a rhombic cross-section of the blade (lance type 2, Figs. 7 and 8).

A difference in the handling of the weapons in the graves between group 2 and 3 is that the weapons, especially the swords, are much more folded in group 3 than in group 2, where the weapons are often broken and bent, but not so masterfully folded together as some swords from group 3.

In one grave, Lagerlunda in Östergötland, the burial was placed in a iron cauldron. In the same grave there was a double-edged sword of late La Tène type.

**Group 4.** The relative chronology between groups 4 and 5 is not altogether clear. I discuss the weapon types first and then discuss the problems

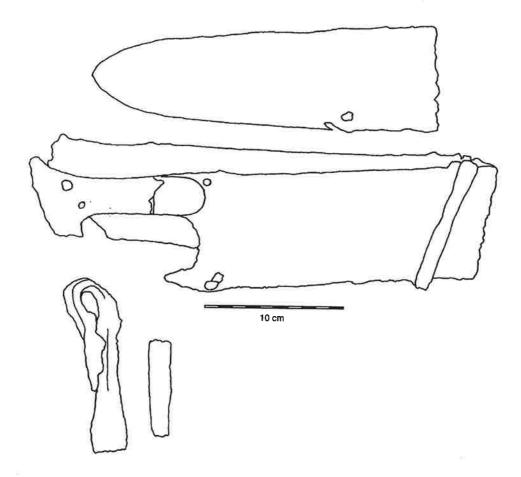


Fig. 8. Weapon grave from Göstad, Örtomta parish, Östergötland, SHM 23284.

of relative chronology. Group 4 consists of swords with a built-in grip. These vary in appearance. This can be an indication that the sword type was used during a longer time-span and one should consider a overlap between groups 4 and 5. In two graves these swords are combined with small lanceheads with a rhombic cross-section of the blade. They are similar to the lanceheads from group 2. Except for the conspicuous grip, the swords are similar to the earlier models of Pre-Roman single-edged swords (Fig. 8).

Group 5. This group consists of shield bosses with spikes (Fig. 9). These are not of the same

model as those in group 2. Instead they have mon with the flat conical shield boss placed in group 3. The profile of the shield boss is usually concave. The shield bosses can however vary in appearance. This may indicate that there are subtypes with slightly different chronology. They have small rivets around a narrow rim. The rivets are similar to those in group 3. The shield bosses from this group seem to be much less damaged than the weapons from earlier groups. This may be caused by changes in the burial custom. The shield was no longer placed on the funeral pyre or deliberately destroyed. Instead the shield parts were put in the grave after the body had been

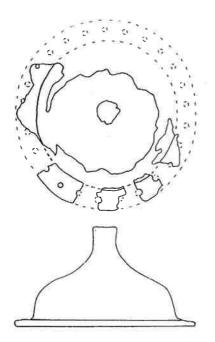


Fig. 9. Weapon grave from Borg, Borg parish, Östergötland. Partly drawn after Ståhlbom 1994.

burned on the funeral pyre. In a couple of graves with this kind of shield boss there are no grip or rivets. This may indicate that the shield boss was torn from the shield before the burial.

A problem with the finds from group 4 and 5 is that the group-defining weapons are almost never combined with other dateable artefacts. The relative dating of group 4 before group 5 rests on indirect, rather weak evidence. From Alby in Hulterstad parish on Öland a shield boss from group 5 was found in an inhumation burial alongside a single-edged sword of a very late preRoman model (Helgesson & Königsson 1973). Inhumation graves do not seem to appear in this part of Sweden until the very early Roman Iron Age. The grave may be one of the earliest inhumation graves on Öland. This is the main argument for placing group 5 after group 4. In a Danish grave from Højgård shield bosses of a similar type were found together with brooches dateable to Nylén's C phase (Jørgensen 1990). It may be that the relative chronology of Denmark and Sweden is not entirely comparable, but this find suggests that the shield boss could have been in use during a longer time-span. In grave 6 from Sörby-Störlinge, Gärdslösa parish on Öland, shield rivets similar to those from group 4 or perhaps 5 were found alongside a heavily profiled fibula (Ölands järnåldersgravfält I, pp. 344 ff.). This kind of brooch is dated to Nylén's Dphase or even the Early Roman Iron Age. In Poland the sword with built-in grip is dated to the very last phase of the pre-Roman and even the beginning of the Roman Iron Age.

It seems that the relative chronology between groups 4 and 5 is not easy to discern. I suspect that groups 4 and 5 may be partly simultaneous. The problem is that no grave has a find combination that overlaps.

**Group 6.** Perhaps this group rather should be called Early Roman Iron Age. This group includes some types, such as the conical shield boss or single-edged swords with few rivets in the grip which do not correlate with the pre-Roman material but are not combined with typical early Roman artefacts. This group may partly be simultaneous with group 5, but again, no find

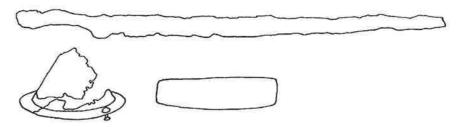


Fig. 10. Weapon grave from Kungsbro, Vreta kloster parish, Östergötland, SHM 11486:B.

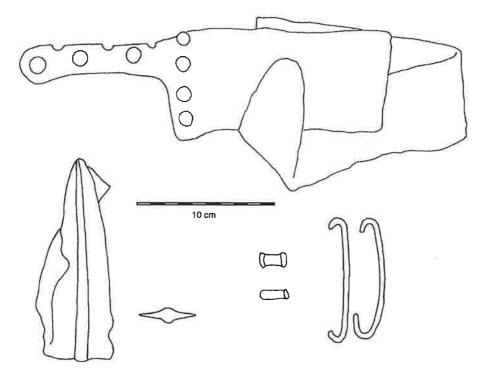


Fig. 11. Weapon grave from Gottsta och Darsta Hagar, Kungsåra parish, Västmanland, Västmanlands läns museum VM 9976–9979.

combination makes such an overlap entirely clear. In this group I have placed lanceheads with flat-rhombic cross-section of the blade, which are very similar to early Roman types. The swords from this group are shorter than in previous groups and are on the way to acquiring the Roman Iron Age features. Still they differ from the later sword types due to "archaic" details such as a tendency to a built-in grip or the length of the sword. It seems that there was a "minimalist" change in the attitude towards weapon graves during this phase. Most of the pre-Roman graves with only sword scabbard fittings and/or shield rivets belong to this phase. This is of course not entirely certain since it is impossible to date these kind of artefacts closely.

In the early Roman Iron Age phase B1 it is possible to discern in Östergötland a very early part of the phase where late pre-Roman types from group 6 are combined with Roman Iron Age types. There seems to be unbroken continuity between Pre-Roman and Roman Iron Age, at least in the type of weapons used (Fig. 11).

#### The Mälaren region

The Mälaren region consists of the provinces of Uppland, Södermanland and Västmanland. Even though the number of pre-Roman weapon graves is fairly high is it impossible to make such a detailed chronology as for Västergötland, Östergötland and Öland. The reason for this can be seen from fig. 20, showing the weapon combinations. The most usual content in the weapon grave is a single lancehead. These are often very individually designed and few main types can be discerned.

Some finds are dateable by comparisons with finds in Västergötland, Östergötland, Öland and Gotland. There is a find of a lancehead of

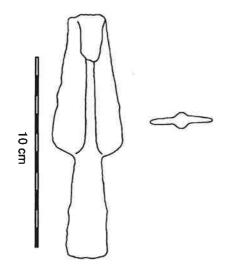


Fig. 12. Lancehead from weapon grave from Grävelsta 2:3, Vallentuna parish, Uppland, Stockholms stads museum SSM 19737:3.

Salo's type A, which should be dated to group 1, early Pre-Roman Iron Age. This is a find from a small bog. No finds could be dated to group 2 and the earliest finds from the late Pre-Roman Västergötland and Östergötland. In the cemetery of Gottsta och Darsta Hagar in Västmanland three weapon graves with single-edged swords were found. These have rivet holes along the outer edges of the grip (Fig. 11). No such swords have been found anywhere else. This should mean that the swords were of local manufacture. The lanceheads too are most probably in most cases of local manufacture. A special kind of lancehead is found in two cases in the Mälaren region (Sö Åby Västerhaninge parish, published by Äijä 1993, Up Åsby Edsbro parish SHM 10794). Identical lanceheads are found in one case in Östergötland and one case on Gotland (Ög Snöstorp Skärkind parish ÖLM 3301, and Vallbys, Hogrän parish, Nylén 1955, p. 299). These lanceheads are so special in design, with grooves along the blade, that they could have been made in the same workshop. Because of the shield boss in the Åby grave, at least this lancehead should be placed in Group 5.

Another lancehead from Vallentuna parish, Uppland, has its closest resemblance to a lancehead found in the cemetery of Ekehögen in Halland (Fig. 12). It seems as though many weapons were of local manufacture; some artefacts, or at least ideas about how artefact should look, travelled far.

In the Mälaren region is it not possible to discern weapon graves clearly dateable to phase B1 along the lines drawn up by Ilkjær and others (Liana 1970; Ilkjær 1990). It seems as if the Pre-Roman types were in use until early phase B2, when there are several dateable weapon graves. One indication is that the lancehead in a grave from Valloxsäby, Östuna parish in Uppland, is of Ilkjær's type 22, dateable to the Early Roman Iron Age. The grave is situated on a cemetery with its roots in the Pre-Roman Iron Age. This can be an indication of the pre-Roman burial custom continued into phase B1. There seems to be a break between phase B1 and B2 in the Mälaren Region. To analyse this further would go beyond the scope of the present paper.

## Bohuslän and northern Halland

In this area four or possible five weapon graves from the Pre-Roman Iron Age are known. A grave from RAÄ 209 Foss parish in Bohuslän, excavated during the autumn 1995, has not been studied by the author. It contained a very fragmented set of artefacts. These are identified by the excavator as a lancehead, shield boss and possibly a triangular brooch (pers. com. Robert Hernek, UV-Väst, Kungsbacka). The artefacts were however in bad shape and the identifications are far from certain.

The other four graves come from the cemeteries of Ekehögen and Valtersberg (Cullberg 1973 a and b and notes from Peter Jankavs Skara). They are different from the weapon graves in the nearby Västergötland and superficially they seem to have more in common with the weapon graves in the Mälaren region. Three of them contain a single lancehead and the fourth just sword scabbard fittings. Chronologically, they should be placed late and perhaps even be dated to the very beginning of the Roman Iron Age. Three of the lanceheads seem to be of a local type, with a narrow blade almost rhombic in cross-section. Such lanceheads are not found in other areas in Sweden (Cullberg 1973b, p. 167 Grave 38, 181).

## Comparisons with existing chronological systems and absolute chronology

The dating of Group 1 should be the early Pre-Roman Iron Age. No more exact dating can been made at this stage. Since there are similar lanceheads in the Hjortspring find, the argument for placing these lanceheads are strong. A problem seems to be to connect these lanceheads chronologically with the weapon grave horizon from the late Pre-Roman Iron Age, Group 2-6. The dating of Group 2 hinges on the dating of the triangular brooch and early import vessels which must be placed in the same phase as these weapon graves. This dating is the main difference between Rasch's Ölandic chronology and mine. I think it is impossible to date the triangular brooch as late as the early Roman Iron Age. Stenberger and Nylén both thought that the triangular brooch was in use during a longer time-span on the Swedish mainland than on Gotland and the continent (Stenberger 1948; Nylén 1955, pp. 429 ff., 1994). No direct evidence for this was put forward, however. The strongest argument for late triangular brooches on the Swedish mainland and Öland seems to be that the brooches dateable to Nylén's C-phase on Gotland seem to be few in number on the mainland. This is an ex silentio argument for extending the life-span of the triangular brooch. It is true that there are some triangular brooches on the Swedish mainland, which have been elaborated from the early types. These should be placed late, but it is not this kind of late brooches

which occur in my group 2.

Keiling would see the early Gallo-Roman import horizon in connection with the war between the Romans and the Langobardi in the first half of the first century AD. He calls this the "Rheinische Welle" of Roman imports (Keiling 1989). This is the main source for Rasch in dating the horizon of early imports to the early Roman Iron Age. It should however be apparent that the weapons found in these cemeteries are of totally different types compared to the pre-Roman types in Sweden. These weapons date perfectly to the Roman Iron Age period B1 and B2. The problem is that similar imports are present both in graves with pre-Roman artefacts in Sweden, and in graves with purely Roman Iron Age artefacts in Langobardian soil in northern Germany. In a paper which catalogues most of the Scandinavian finds of this kind of early imports, most of them are found alongside pre-Roman, rather than Roman artefacts (Bjørnvad 1989). This supports the early dating. There are also other continental finds, with similar imports, clearly dateable to the Pre-Roman Iron Age. The conclusion must be that some types of bronze cauldrons may have been in use during a very long time-span and accordingly they must be used with caution for dating other types of artefacts. There must be more research on these artefacts before the chronological position is determined. A more nuanced picture could lead to a better dating for some types.

In conclusion, I can see no evidence for the late chronology that Rasch suggests for Öland. The finds from Öland are very similar to the finds on the Swedish mainland and only minor deviation on the lead artefacts can be noticed. Therefore the chronology for Öland and Västergötland and Östergötland ought to be the same. It is always hard to go from a relative chronology to an absolute one. I would however date group 2 to around 100 BC, or even a bit earlier. Group 6 should most probably be dated to the first quarter of the first century AD. I discuss the absolute dating derived from carbon further on in the paper.

An old prejudice in Pre-Roman Iron Age archaeology is that weapon graves are much more common in the eastern part of Sweden compared to the western provinces. This can be traced back as far as Arne (1919), or even earlier. Oxenstierna elaborated this for stipulating a Gothic "Urheimat" with no, or very few, weapon graves in western Sweden, and a mixed population in Östergötland, with more militant burial customs (Oxenstierna 1945). There are still twice as many weapon graves in Östergötland as in Västergötland. This is certainly less due to the prehistoric society and burial customs, than to our own society and the use and abuse of eskers. Most pre-Roman cemeteries are situated on eskers. Most cemeteries have been discovered in connection with gravel digging. This means that the contemporary development of the landscape controls our picture of prehistoric society. In parts of central Västergötland, Valle Hundred, the gravel is not of good enough quality for building roads. In the same area no pre-Roman weapon graves and very few cemeteries from the pre-Roman period are known (Sahlström 1939).

A similar discussion concerns the typology of the weapons. Many archaeologists want to see a difference between Västergötland and Östergötland based upon the occurrence of different types of weapons. This has a clear connection to Oxenstierna's view of the two Götaland provinces and the ethnicity of the inhabitants. As late publications as Zieling (1989) and Rasch (1991) discuss certain eastern Scandinavian types of weapons during the Pre-Roman Iron Age. This assumption is not tenable any more. The weapons from Västergötland and Östergötland are identically made. There are no types which occur only in the eastern or western part of the area. The weapons from Öland are also identical, with only minor differences in the shapes of lanceheads, compared to the finds from the mainland. The conclusion must be that the inhabitants of Östergötland, Västergötland and Öland shared the same outlook on what weapons should look like

and how certain members of the society should be buried with them.

Another way of analysing the content of weapon graves is to look at the weapon combinations. I have collected the combinations from the closed finds from Östergötland and Västergötland (Fig. 13). The most common combination during the whole late Pre-Roman Iron Age is sword and lance. The second most common combination is sword, lance and shield. It seems a bit strange to enter battle with two offensive weapons and no shield. The simplest solution to this is that the shield was of wood, none of which survived the funeral pyre. Of course, this is an ex silentio argument. No wooden shields from the late Pre-Roman Iron Age have yet been found in Sweden. The common weapon combinations in the burial are another argument for seeing Västergötland, Östergötland and Öland as one area in the case of weapon burials. Compared to the standardized weaponry in this region, the armaments in the Mälaren are very individualistic (Fig. 14z). This is another indication that the Mälaren region should be seen as a separate case.

# Social implication of chronological studies

In Swedish archaeology there seems to be a current trend towards seeing graves as conveying information concerning social structures and about beliefs, religion and ideology. Certainly graves can be used, among other things, to answer these questions. Sometimes, however, the historical dimension, the chronological discussion is somewhat weaker than the desire to discern social structures and symbolism. Discussions of social structures should be based upon a good chronological and typological framework. The consequences of seeing the prehistoric society without history and change and with unchangeable social structures conveyed in the grave material is a serious error. This paper is mainly about chronology, and no in-depth analy-

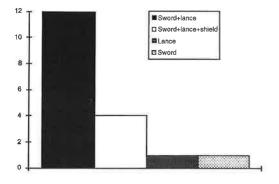


Fig. 13. Weapon combinations in weapon graves in Östergötland and Västergötland. Only closed finds included. Graves with only parts of weapons or only sword scabbard fittings and no sword counted as having the whole weapon.

sis of pre-Roman society can be made on these pages. Some points will however be touched upon as examples of how the chronology affects the analysis of the prehistoric society.

The consequences of using a certain chronology can be grave for the social implications one wants the material to convey. In a paper Näsman (1994) discusses social structures on Oland during the Pre-Roman Iron Age. Näsman uses Rasch's chronology (1991, 1994a). This means that the pre-Roman weapon graves are dated to periods B1a and B1b and the weapon burial custom is supposed to have begun shortly after AD 0. B1b ends around 70/80 AD. This means a late Pre-Roman Age condensed to 50 to 60 years. Most of the late pre-Roman finds are placed in this short time-span. The condensed chronology also has consequences for the rest of the early Roman Iron Age period B2. All finds are put in two subperiods B2a and B2b. This means that both finds which are more traditionally dated to period B1, conical shield bosses and certain variants of the single-edged sword, and pure B2 finds are dated to these phases.

The condensed chronology also has consequences for the view of pre-Roman society. On the basis of the chronology Näsman sees a very strong new weapon burial custom beginning shortly after AD 0. "In fact the number of graves

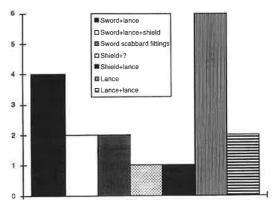


Fig. 14. Weapon combinations from the Mälaren Region. Only closed finds included. The same sourcecriticism apply as to the previous diagram.

is low, but the general pattern – a rapid increase after the introduction of the weapon burial custom around the birth of Christ, a peak in the Early Roman Iron Age, and then a rapid decrease in the later Roman iron Age, and then a complete stop in the Migration Period is paralleled in many other areas" (Näsman 1994, p. 23) Näsman emphasizes that very few conclusions about the social structures can be drawn from the study of weapon graves alone and that weapon graves should not be uncritically interpreted as indicators of warfare and unrest in the society. In fact, there may be evidence of the contrary. In unruly times like the Migration Period, as Näsman notes, there are very few weapon graves, and in periods with few signs of unrest there are a considerable number of weapon graves. Keiling, on the other hand, and Rasch, following his dating of the earliest weapon graves, emphasize the more militaristic outlook on burials, supposedly connected to the Germanic tribes' growing warlike contacts with the Romans around AD 0. The earliest appearance of weapons in graves is interpreted historically in connection with Roman reports of war with the Germani. "At the time immediately before the birth of Christ, the expansion politics of the Romans led to large movements of people within the south Germanic area. These movements gave rise to wide social

changes in the Germanic society. Among other things, the eastern and northern Germanic tribes, under the influence of Lombardic burial traditions, began to bury the male individuals of the upper strata with weapons" (Rasch 1991, p. 499). This view is hard to maintain. The late and short chronology has been criticized above. With the short chronology my distinct groups 2-6 last only for about ten years each. This is not realistic. With such a high speed of typological change it should not be possible to discern breaks between the groups. Can we archaeologically discern periods of time shorter than around 50 years at all? If it is possible, in this case, to discern five distinct weapon grave horizons during a timespan of 50-60 years, why is it then not possible to discern more than two horizons B2a and B2b during the next 100 years? Period B2 contains no fewer weapon finds and weapon graves than the Pre-Roman Iron Age. Instead of a rapid acceptance and spread of the weapon burial custom around the birth of Christ, the weapon burial custom was very slowly introduced during the first one-and-a-half century BC. It should be noted that pre-Roman weapon graves are only found in the most highly populated areas and there only in small numbers. It is doubtful that even in these areas more than one person was buried with weapons in a generation in one cemetery.

Another question is to relate historical events to shifting burial customs. Does a more aggressive Roman foreign policy lead to weapon burials on Öland and other parts of Scandinavia? I think this is an interesting question. The graves and burial customs should not be seen isolated from the society and the historical course of events. On the other hand, I am not convinced that the burial customs mirror political and military events in another part of Europe in such a direct manner.

How does my own long and early chronology work out? Since only very few cemeteries have been totally, or at least to a large extent, excavated, only limited general analysis of the social

structures can be done. I think that for this kind of interpretation all graves in a cemetery must be reckoned with. Partly excavated cemeteries therefore convey limited information. I emphasize that there are differences between cemeteries from the same period, and what is true for one cemetery may be completely wrong for a cemetery just 20 kilometres away. One must reckon with individuality and variation in prehistoric society. An impression from Västergötland and Östergötland is that there are two weapon graves on most of the big late pre-Roman cemeteries. This is an assumption with great source-critical weaknesses. The pattern of two weapon graves occurs primarily in cemeteries which have been totally or largely excavated. In cemeteries where just a few graves have been excavated, just one weapon grave may have been found. Another problem is that there are cemeteries which have been totally excavated, where no weapon graves at all have been found. A classic example of the two weapon grave pattern is the cemetery at Kyrkbacken in Horn parish in Västergötland (Sahlström & Gejvall 1948; Moberg 1950; Hachmann 1961). The oldest graves in the cemetery are situated in the northern end, and the cemetery expanded towards the south with the last graves in the southern end, perhaps transgressing the border of the early Roman Iron Age. There are two weapon graves in the cemetery. The first was found during quarrying for gravel. The grave was situated somewhere near the northern end of the cemetery. This grave is dated to my group 2. The second weapon grave was situated in the middle of the cemetery. It contained only a single-edged sword. This makes the grave more difficult to date with certainty. The sword is, however, fairly short for a pre-Roman model, 53.5 cm. The distance between the weapon graves and the horizontal stratigraphy of the cemetery points towards one weapon grave per generation.

The question of which persons in the society were buried with weapons is one where the archaeological material is a weak source. There is evidence that the weapon graves most usually contain adults or old men (Rasch 1991, pp. 492 f.). The pattern with one weapon grave per generation per cemetery seems to me to imply some inheritance of the status of being buried with weapons. The sometimes rich content of the weapon graves and even the weapons themselves of course implies a leading social strata. It is interesting to contrast the weapon burials featured in this paper with the women's graves with the contemporary belt-hooks discussed by Becker (1993). These are supposedly found in richer female burials. The weapon burial custom seems to be more or less similar over large areas. Typologically the weapons in my research area correspond to common North European codes, even if there are local variations. By contrast, there seem to be several local types of belt-hooks. Becker discerns variants from different parts of Scandinavia. There are certain Västergötland and Östergötland types and other types from other parts of Scandinavia. When a belt-hook of Västergötland pattern is found in another area he discusses in terms of marriage alliances. It may thus seem that female dress and costume equipment was of local manufacture and showing local preferences. This makes it possible to discern marriage alliances between different areas and to discuss further implications of alliances and cultural connections. The male's weapons however, were more international in manufacture. Perhaps there is a different social perspective on this. It could have been important to show the connections to other areas and chiefs through the origin of the wives, as shown by the dress. It could on the other hand have been important to have similar weapons for the chiefs or leading males. This could show the wish to conform to an international "warrior" ideal, maybe implying different tribal alliances to which one called for help in times of war.

## Concluding remarks

The study shows that it is possible to work out a

rather detailed chronology for the weapon finds, especially for the weapon graves from the late Pre-Roman Iron Age from the Swedish mainland and Öland. The study shows that the weapon burial custom began during the late Pre-Roman Iron Age. Before that there are only a few weapon finds, most of which seem to be found in bogs. During the late Pre-Roman Iron Age the Swedish mainland could be divided in four separate areas based upon the typology of weapons and the look of the weapon burials in general. The first area is Västergötland, Östergötland and Öland. The earliest weapon graves on the Swedish mainland come from these parts of Sweden. It is rather problematic to date them inside the common chronological systems, but they should be placed somewhere in Becker's early phase IIIb or Nylén's B-phase. It is possible to discern six separate horizons of weapon finds, even if some of these may chronologically overlap. The second area is the Mälaren region. In this region it is not possible to separate the weapon finds from the Pre-Roman Iron Age from the finds from the earliest phase, B1, of the Roman period. This indicates that pre-Roman artefacts survived longer here than in the southern part of Sweden. The third region is a small number of sparsely equipped weapon graves from the very western part of Sweden. These should be dated late too, maybe transgressing the border to the early Roman Iron Age. The fourth possible region is Skåne and perhaps Blekinge. In this area the weapon burial custom seems to have been weak during the Pre-Roman Iron Age, but some stray finds from the early and late pre-Roman periods indicate that weapons were of course used, even if they did not find their way down into the graves. The fifth Swedish region is Gotland, not considered in this essay.

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