Appendix 2: Social status analysis

A second analysis of social status was carried out with the *Socistat* computer program developed by the Institute of Archaeology, London (Duncan *et al* 1989). This produced a listing of graves ranked by the status of the grave goods they contained (Appendix tables 1, 2 and 3). Full details of the operation of the program are available in Duncan *et al*. (1989), and results from an earlier application of the program, to data from the Anglo-Saxon cemetery at Sleaford, Lincs, can be found in Brenan (1985).

The program's authors have noted that the Socistat implementation is still to be considered experimental (1989, 4). Nevertheless, the use of a computer program for the assessment of social status offers the advantages of quick and accurate analysis of a large amount of data, and of a degree of objectivity which arises from the fact that the assessment of the status-value of objects relies solely on the pattern of occurrence within any given cemetery data set. The program therefore has the potential for identifying patterns of status-marking within individual cemeteries which may usefully both challenge and reinforce existing preconceptions. The method adopted for analysis of the Berinsfield data is given in detail below. It should be noted that the program offers the option of creating variables other than the presence or absence of grave goods that may also be potential status indicators, such as aspects of grave structure or burial rite, or the presence of gold in an assemblage (Duncan et al. 1989, 11). Such variables may also be admitted as 'auxiliary' variables — that is to say, not included as a component of the analysis, but listed in the output, allowing any relationship between the variable and the overall order to be revealed. This facility is likely to be of considerable value for the manipulation of very large and complex data sets, and for the testing of hypotheses, but was not adopted with the Berinsfield analysis, which was seen as essentially exploratory in nature. It is hoped, however, that the publication of these results will be of use to other researchers in this field, and it is suggested that the development of computer programs based on sound statistical techniques will be an invaluable research aid for the future analysis of the large and unwieldy data sets generated by Anglo-Saxon cemeteries.

The following method was adopted in the analysis of the Berinsfield data. A list of grave goods considered as functional types was generated, and this was input with identification of the sex-linkage of individual types, where applicable. The sex-linkages used are given in the notes to Appendix Tables 1, 2 and 3 below, and it should be noted that they are as observed at Berinsfield only. Identification of sex-linked types is recommended by the program's authors, and allows male and female graves to be ranked

separately.

Details of the grave goods occurring with each burial were then input, and the ranking was calculated using these data alone. The program orders graves according to their single highest ranked grave good, and graves with the same highest ranking type are then ordered according to the sum of the status indices of the remaining types. The status index of any grave good is the mean number of different grave goods in graves where the type occurs. This calculation relies on the assumption that high status graves will tend to contain a large number of objects, and that low status grave goods will occur in high status

graves as well as poorer ones (see Brenan 1985, 126–8). The rank order of grave goods is given in the notes to Appendix Tables 1, 2 and 3, and they are ranked within three different groups; 1–12 being non sex-linked types, 13–15 being diagnostically male, and 16–33 being diagnostically or preferentially female. The method by which the status indices were calculated is illustrated by the fact that the highest ranking types in each group are those which occur only in the largest assemblages.

It is interesting to note that spears have been ranked higher than shields, which contradicts general assumptions about their relative values (see Brenan 1985, 129). This probably reflects the unusually high number of shield-only burials at Berinsfield and may be distorted by the relatively high ranking of the spear-only burial in grave 61; in general, there is no clear difference between shield-only and spear-only burials in terms of the numbers

of grave goods they contain.

Following Brenan's observation that the status of individual brooch types in her analysis conflicted with generally-held opinion (1985, 129-30), it was decided to differentiate between brooch types in the data input at Berinsfield (see notes to Appendix Tables 1, 2 and 3). As at Sleaford, the resulting ranking requires comment. The ranking of the Stützarmfibel, at position 30, is undoubtedly a distortion resulting from a single occurrence in a wealthy grave (64). The high ranking of a pair of non-matching brooches, at position 25, is interesting and is a result of the occurrence of non-matching brooch pairs with the wealthy burials 107/1, 77/1 and 83/1. The ranking of disc brooches (position 23) higher than saucer brooches (position 21) also contradicts orthodox opinion. This may result from the fact that single saucer brooches in two large assemblages, 77 and 107, were recorded as mixed pairs. It is worth noting, however, that a pair of saucer brooches was by no means a consistent feature of the wealthiest assemblages at Berinsfield.

Comparison of the computer-generated ranking with the object-type count given in Chapter 5 suggests that the two methods give broadly similar results. This argues well for *Socistat's* potential as an analytical tool for the future. It is clear, however, that further research is needed to define the optimum categories for data input: the anomalies noted above suggest, for example, that there may be a case for excluding objects which occur only once. The introduction of further potentially status-related variables would also seem to be desirable, although the identification of such variables will only be achieved through a consensus of opinion based on wider research. It is notable, for example, that the Berinsfield analysis has ranked pots (position 7) and flints (position 10) higher than buckets (position 3) and belt fittings (position 4). Given the quality of some belt fittings and the skilled craftsmanship required for bucket making, it could be argued that the use of variables which control for factors such as the presence of metal, or of decoration, would produce more acceptable results. This is discussed by the program's authors (1989, 7-8).

Nevertheless, several points of interest have emerged from this analysis. It is notable that all the wealthy graves contain sex-linked grave goods; the 20 graves with undiagnostic types contained at most two grave goods. In addition, unlike a simple object-type count, *Socistat* produces a continuous ranking of graves, which suggests status differences between burials with the same number of objects. There are also numerous cases where burials with larger numbers of lower-status objects are ranked below burials with a smaller number of higher-status objects (for example graves 150, 18, 8, 21 and 35, which have 3 types but which are ranked higher than many

Order of ranking of graves, lowest to highest

Abbreviations used in the tables:

Sex-linked grave goods Diagnostically male:

Diagnostically female:

Preferentially female:

Grave and burial number

No Grave graves with 4 types). Moreover, the output tables reveal patterns in the distribution of grave goods which would only be accessible with considerable effort in a hand-generated analysis. It is clear, for example, that beads are almost universal amongst the graves with female grave goods, and commoner there than knives, while girdle groups occur only with the wealthiest third of these burials.

Notes to appendix tables 1, 2 and 3

S Sex according to grave goods M Burial with diagnostically male grave goods Burial with diagnostically female grave goods F Burial with non-sexlinked grave goods Types Grave goods input for analysis Grave goods in order of ranking (lowest to highest) Nai Nail Kni Knife 3 **Bucket** Buc Bel Belt fitting/buckle 5 Pin Pin 6 Met Miscellaneous metal Pot Pot Coi Coin 2Be 2nd belt fitting/buckle 10 Fli Flint 11 2Kn 2nd knife 12 Cha Chain 13 Shi Shield 14 Spe Spear 15 2Sp 2nd spear 16 Bro6 Brooch 6 — button brooch 17 2Ri 2nd finger ring 18 Twe **Tweezers** 19 Com 20 Bro7 Brooch 7 — small long brooch Brooch 5 — saucer brooch 21 Bro5 Bead/s 22 Bea 23 Bro4 Brooch 4 — disc brooch 24 Rin Finger ring 25 BroX Mixed pair of brooches 26 Gir Girdle group 27 Bru Brushholder 28 Bro8 Brooch 8 — square-headed brooch 29 Cry 30 Bro1 Brooch 1 — Stützarmfibel 31 Spw Spindlewhorl 32 Toi Toilet set 33 Bag Ivory bag ring

spear, shield, 2nd spear

toilet set, ivory bag ring

bead/s

brooches (all), finger rings, tweezers, comb, girdle groups, brushholder, crystal, spindlewhorl,

Appendix Table 1 Status ranking of graves with diagnostically male grave goods

No	Grave	s	S Types																																
			N A I	N	Ū	B E L	P I N	M E T	P O T	C O I	2 B E	F L I	2 K N	C H A	S H I	S P E	2 S P	B R O 6	2 R I	T W E	C O M	B R O 7	B R O 5		B R O 4	Ι	B R O X	G I R	B R U	B R O 8	C R Y	B R O 1	_	Т О І	
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07	029:1	M	•	•	*	•		•			•		•	•	*	:	•			•	•		•	*	•		•	•	•	•					
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11	047:1	M		*		*										*																			
12	128:1	M		*		*										*																			
13	030:1	M	٠	*	•	•	*	÷	٠	٠	٠	•	•	•	•	*	•	•	•	٠	•	•	٠	•	٠	•	•	•	٠	•	•	•	•	•	•
14 15	161:1 024:1	M M	*	*	٠	٠	٠	^	•	٠	٠	٠	٠	٠	*	*	•	٠	•	٠	٠	•.	٠	٠	•	٠	٠	•	٠	٠	•	٠	•	•	•
16	051:1	M	-	*	*	•	•	•	•	•	•	•	•	•	*	*		•		•	•	:	•	:		•	:		•					•	•
17	053:1	M		*			*								*	*																			
18	141:1	M	٠.	*		٠		*			•	•	•	•	*	*			•	•	•	•	•		•	•	•			•	•				•
19 20	034:1 061:1	M M	*	*	•	•	•	. *	*	•	٠	٠	٠	٠	*	*	٠	٠	٠	•	٠	•	٠		•	٠	٠	٠	٠	•	٠	٠	•	٠	•
21	110:1	M		*	•	*	•	•		•	•	*	•	•	*	*	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	٠	•
22	052:1	M	•	*	•	*		*			*			:	*	*	•				:	•		•		:	•	:	·	:	•		:		•
23	026:1	M		*	•			*	*	*				٠.	*	*				•															. •
24	028:1	M		*				*		•	•	•	*	•	*	*	.* ^		•	•	•			*	•	•								•	
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Appendix Table 2 Status ranking of graves with diagnostically female grave goods

Appendix Tuble 2 Status runking of graves with anagnostically female grave goods																																			
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02 073:1	F		;	٠	•	•	*														•							•					•	•	٠
03 068:1	F		•	•																								٠				٠	٠	•	٠
04 118:1	F		•																													•	•	•	٠
05 127:1 06 058:1	F		•	•	•	•	•	•	٠	٠	•	•	•	•	•	٠	•	٠	•	•	•	*	•	*	• .	•	٠		•	٠	•	٠	٠	•	٠
06 058:1	F F		•	•	•	•	• .	•	•	•	•	•	•	•	•	•	•	•	•	•	•			*				•					•	•	•
08 010:1	F		*	*	•	•	•		•	٠	•	•	٠	•	•	•	•	•	•	٠	•	•		*				•					•	•	٠
09 134:1	F			*	٠	•	*	:	•	٠	•	•	•	•	•	•	•	•	٠	•	•	•	•	*								٠	•	•	•
10 063:1	F		•	*	•	•																		*								•	•	•	•
11 042:1	F			*	•	*																	*					•					Ċ		
12 091:1	F			*			*				_		_		_		_				_	*		*											
13 130:1	F			*				*															*	*											
14 022:1	F			*				*																*											
15 035:1	F		•					*																★,	*										
16 060:1	F			*		*	*																		*										
17 049:1	F				•	*		•				•						•		*				*											
18 021:1	F		•	•	•	•	•			•	•	•	٠	•	•				*		•	•	•	*	•	*								• ,	٠
19 008:1	F		•	*	•	•	•	•	•	•	٠	٠	•	•	•	•	•	•	•	•	٠	•	•	*		•		•	•	•	٠	•	•	•	•
20 018:1	F		•	:	•	٠																						*	*	•	٠	•	٠	•	٠
21 150:1	F		•	*	•	•	•	. •,	•	•	٠	•	•	•	•	٠	•	٠	٠	٠	٠	•	•	÷		•	•	*						•	•
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23 005:1 24 083:1	F F		•	^	٠	٠	^	:	٠												•		٠				:					•		•	٠
24 083:1 25 104:1	F F		٠	*	•	٠	٠	*	*															*											
26 077:1	F		•	*	•	*	*														•		٠	*		•			•	*				•	
27 102:1	F		•	*	*	*		*	•														*		•			*	•		•	•	٠	•	•
28 125:1	F		*	*			*	*	•															*	*	•	•		•		•	•	*	•	•
29 064:1	F				•	*		*	*	*	•	*	٠	*	•	•	•	•	•	•	•	•	•	*		٠	-		•	•	•	*		•	•
30 054:1	F		•	*	•	*	*				•		•		•	•	•	•	•	•	:	•	*	*	•	*	•	•	•	•	*		•	*	•
31 107:1	F		•	*	•		*	*	•	•											:			*	•		*	*	*	•		•	•	*	*
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Appendix Table 3 Status ranking of graves with non-sexlinked grave goods

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01	092:1	U	*																																
02	015:1	U	•	*			٠																											•	•
03	056:1	U		*							•		•							٠									•					•	
04	055:1	U		*							•																								
05	057:1	U	•	. *	•																														
06	0.03:1	U	•	*	•	•	•			•	٠	•	•		•				•	٠	٠	•		٠				•							•
07	136:1	U		*				•	•	•	٠	•	•	•	•			•	•			•	٠		•	•		٠		•	•			•	•
80	048:1	U	•	*	:	•	•	•	•	•	•	•	•	٠	٠	•	•	•	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•
09	149:1	Ū	•	•	*	•	•	•	٠	•	•	٠	•	٠	•	•	•									•	-		•	•	•	•	•	•	•
10	032:1	U	٠	*	٠	*	٠																			•									
11	050:1	U	•	*	٠	*	٠																			٠			٠	٠	٠	•	٠	٠	•
12	122:1	U.	٠	*	٠	- 1	٠																			٠			٠	٠	٠	٠	٠	٠	•
13	133:1	U	٠	*	•	*																				٠			٠	•	•	•	•	•	•
14	078:1	U	•		•	٠	_	•																		٠			•	٠	٠	٠	٠	٠	•
15 16	086:1	U	•	^	٠	٠	î	:																		٠									
17	106:1 151:1	U	•	•	•	•	•	*																		٠		٠	•	•	•	•	•	٠	•
18	101:1	U	*	٠	٠	•	•	*																		٠		٠	٠	•	•	•	•	٠	•
19	101:1	IJ		•	•	•	•		*																	•			•	•	•	•	•	•	•
20	152:1	IJ	*	•	•	٠	•	٠		*	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	٠	٠	•	•	•	٠	٠	•	•	•
20	132:1	U	NT.	V	D	В		M	P	<u> </u>	2		•	ċ	٠	٠	·	· D	3	un.	ċ	·	·	· D	·	R	· D	ċ	B	· D	ċ	B	ċ	T	· D
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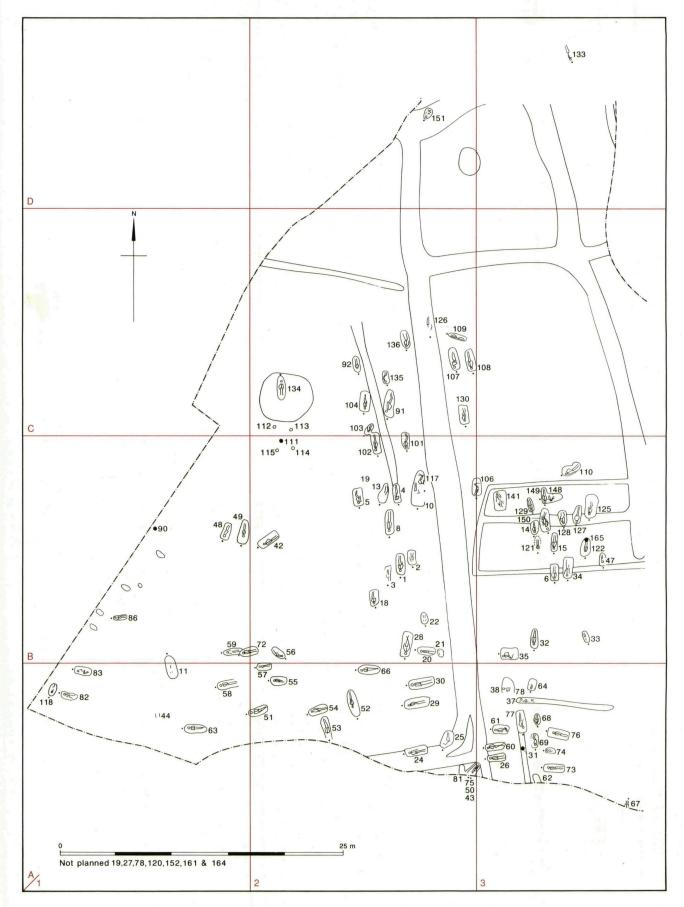


Figure 35 Site plan of main area of the Anglo-Saxon cemetery. Dots show position of head

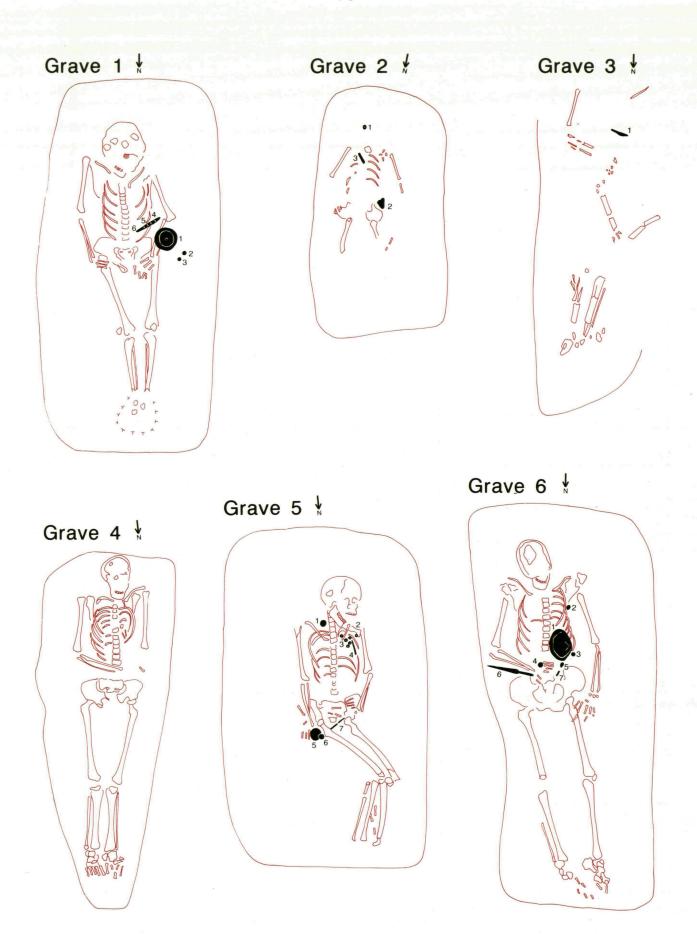


Figure 36 Grave plans 1-6: scale 1:20

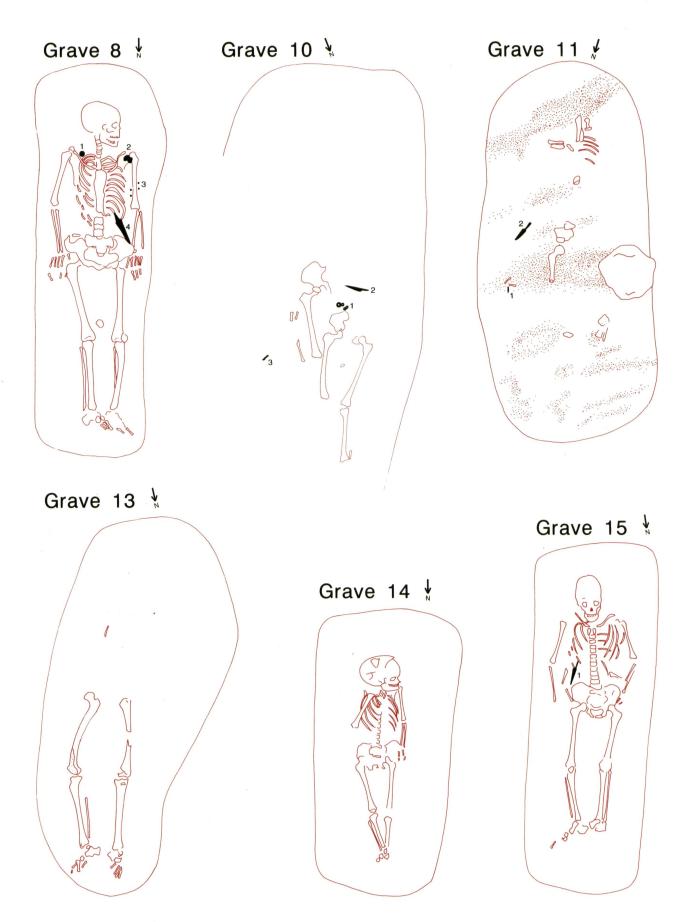


Figure 37 Grave plans 8-15: scale 1:20

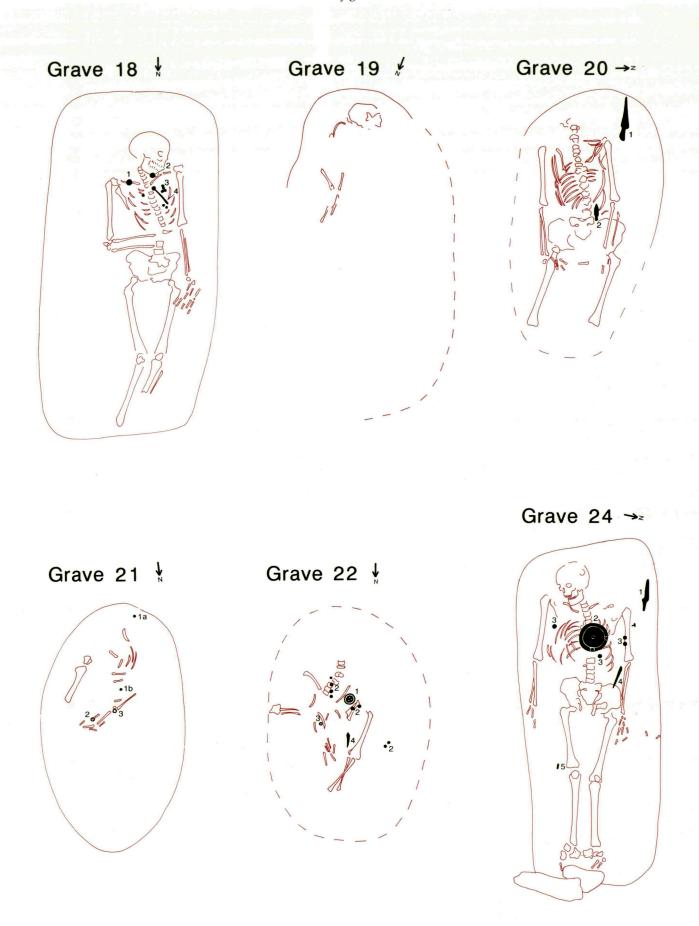


Figure 38 Grave plans 18-24: scale 1:20

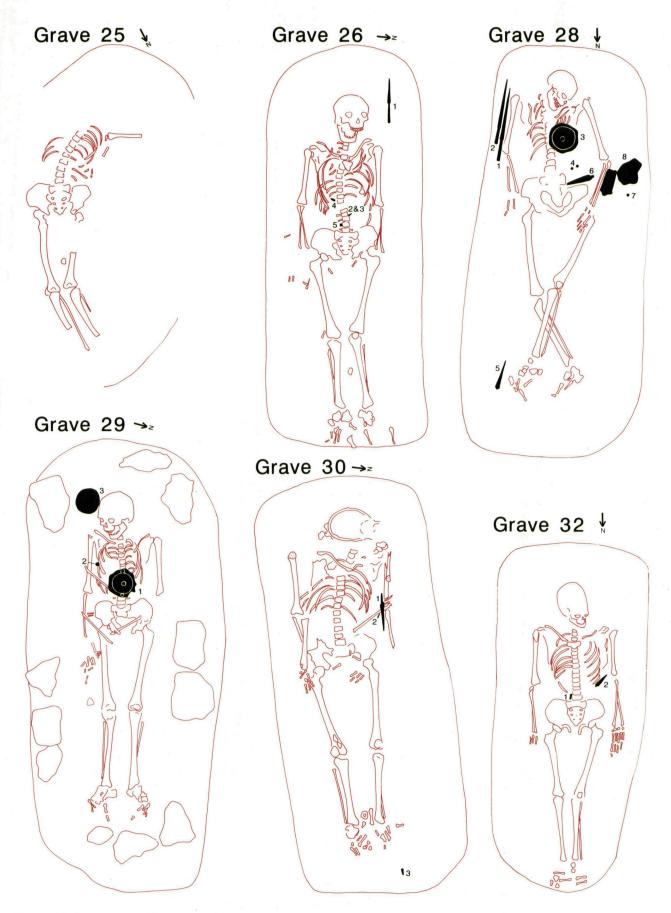


Figure 39 Grave plans 25-32: scale 1:20

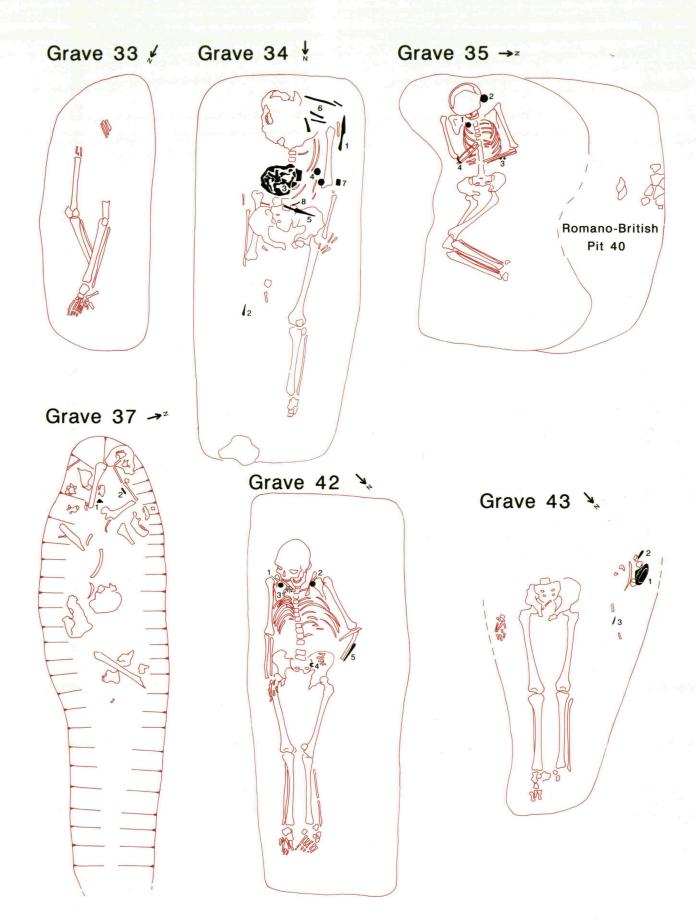


Figure 40 Grave plans 33-43: scale 1:20

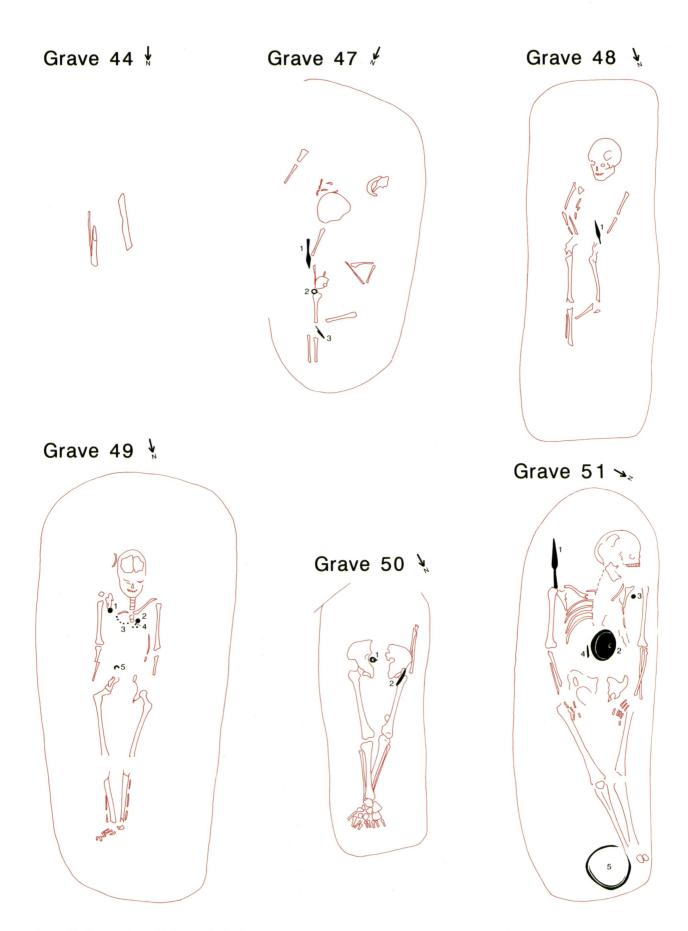


Figure 41 Grave plans 44-51: scale 1:20

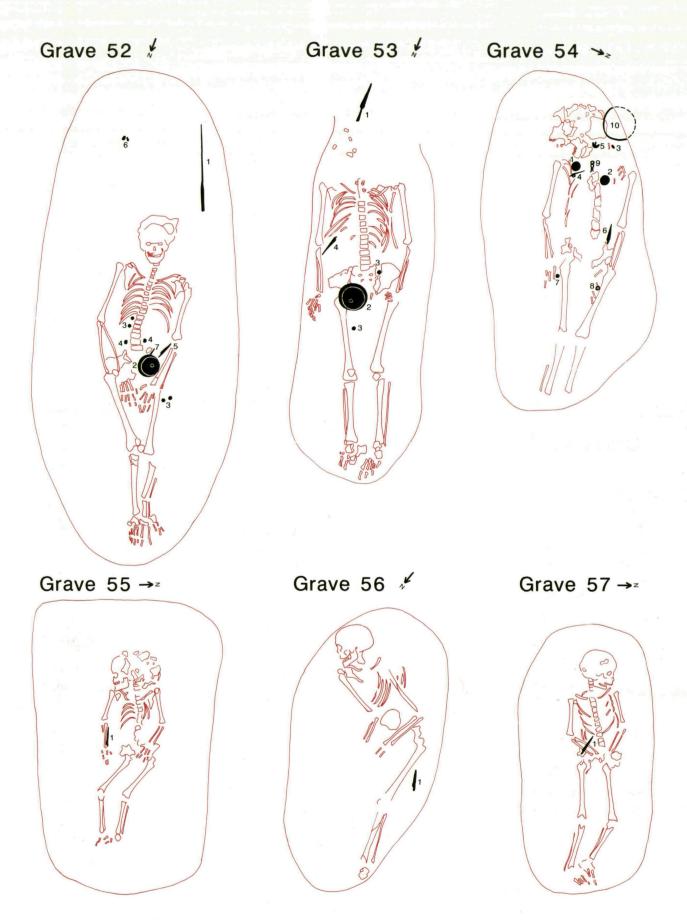


Figure 42 Grave plans 52-57: scale 1:20

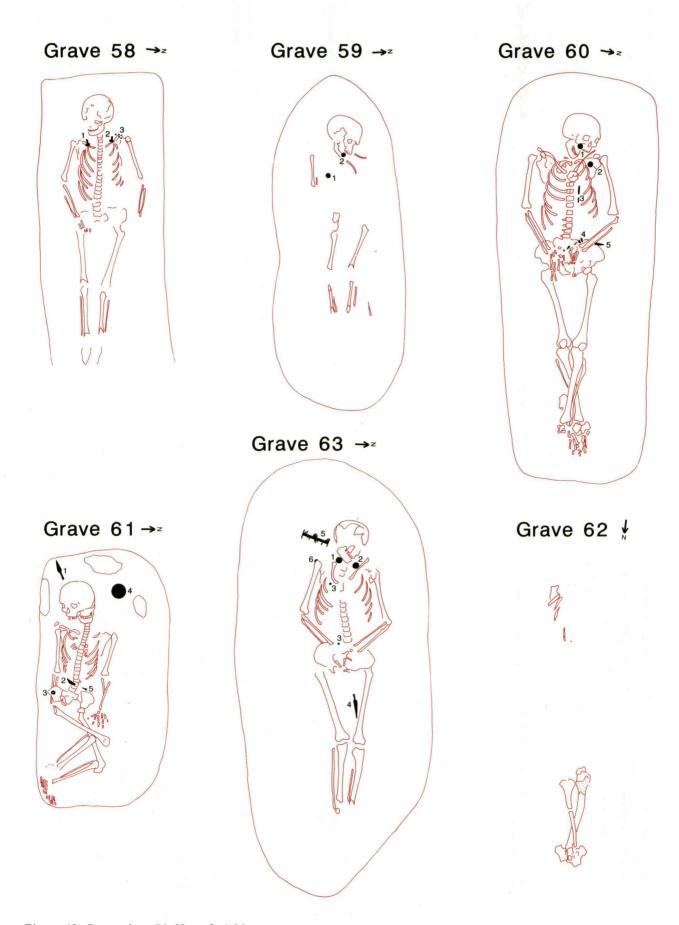


Figure 43 Grave plans 58-63: scale 1:20

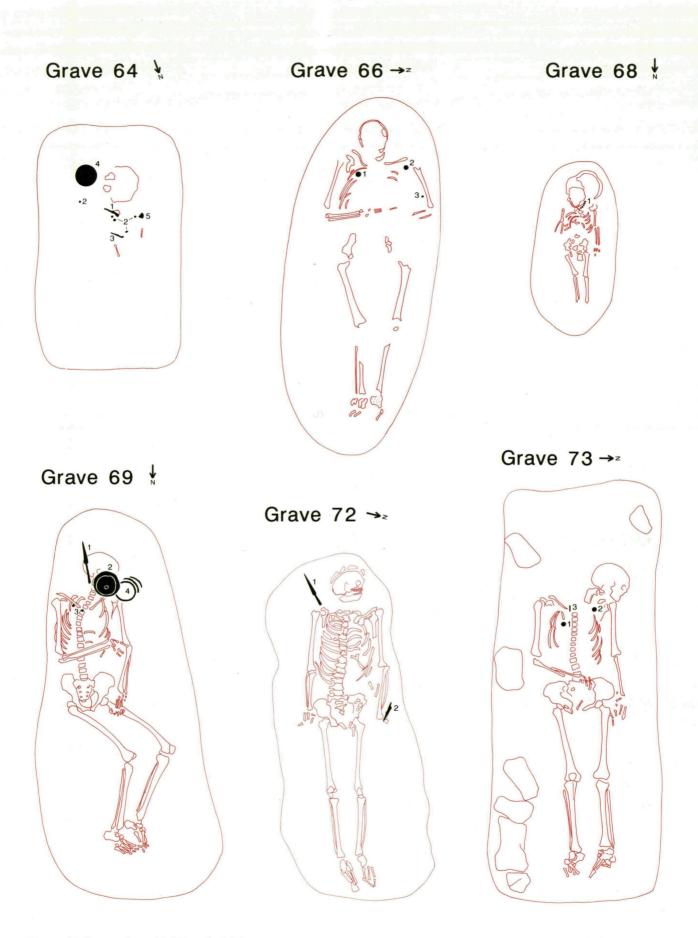
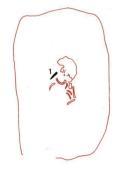


Figure 44 Grave plans 64-73: scale 1:20

Grave 74→z



Grave 78 →z



Grave 82 →2

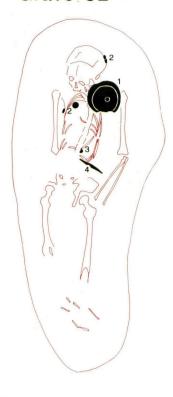
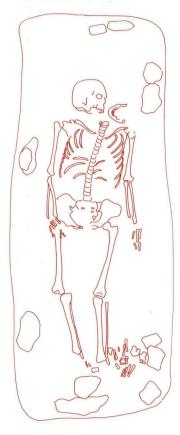
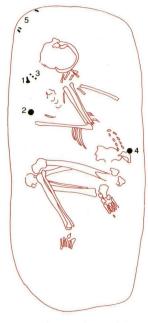


Figure 45 Grave plans 74-86: scale 1:20

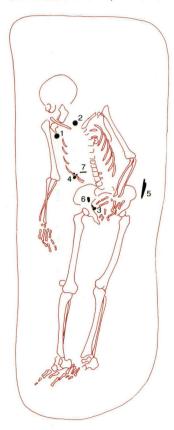
Grave 76 32



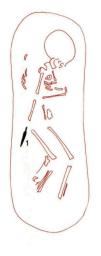




Grave 77 🟃



Grave 86 →z



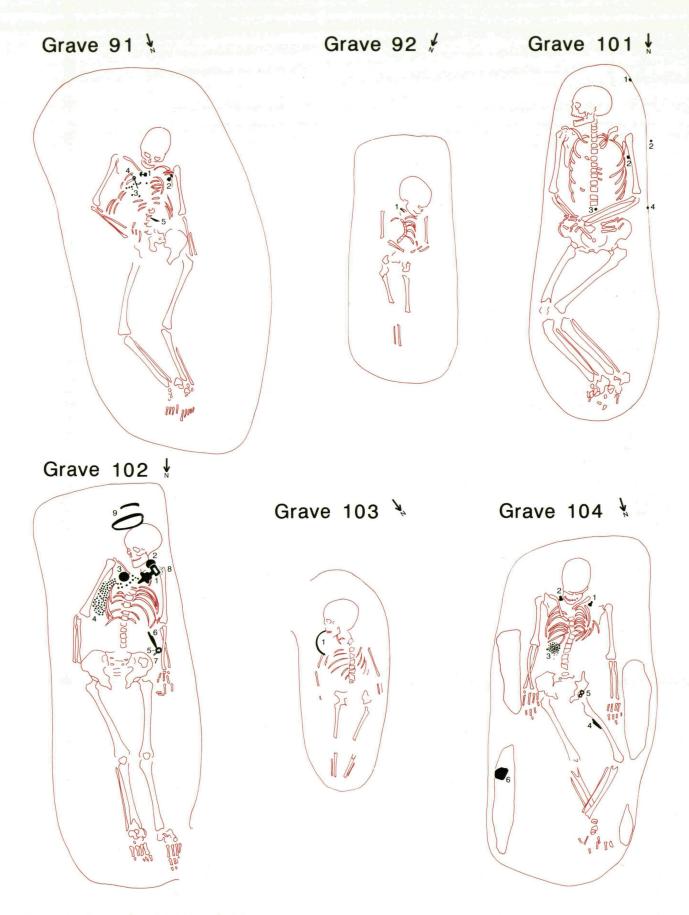


Figure 46 Grave plans 91-104: scale 1:20

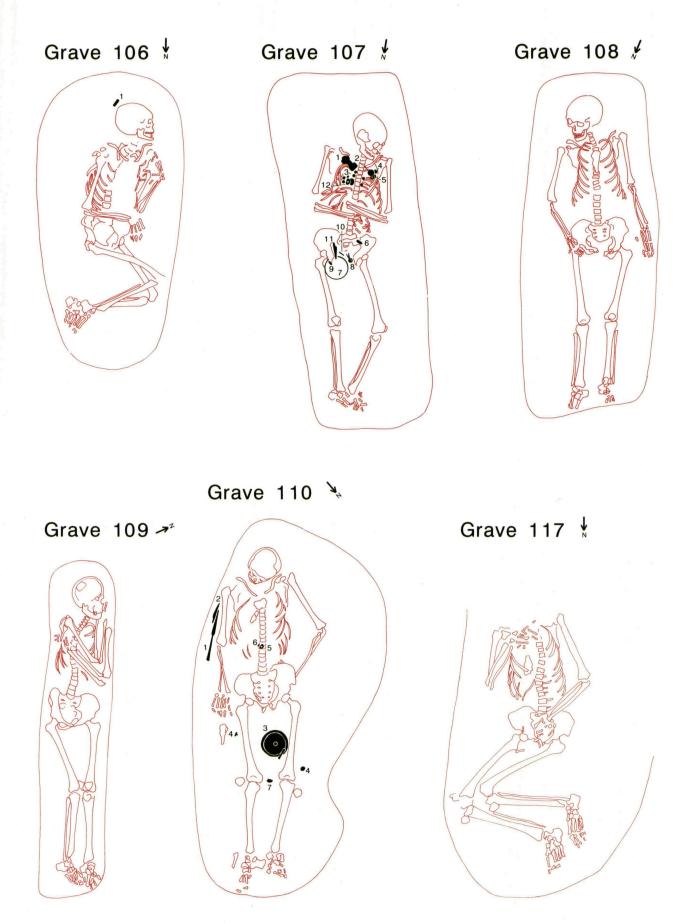


Figure 47 Grave plans 106-117: scale 1:20

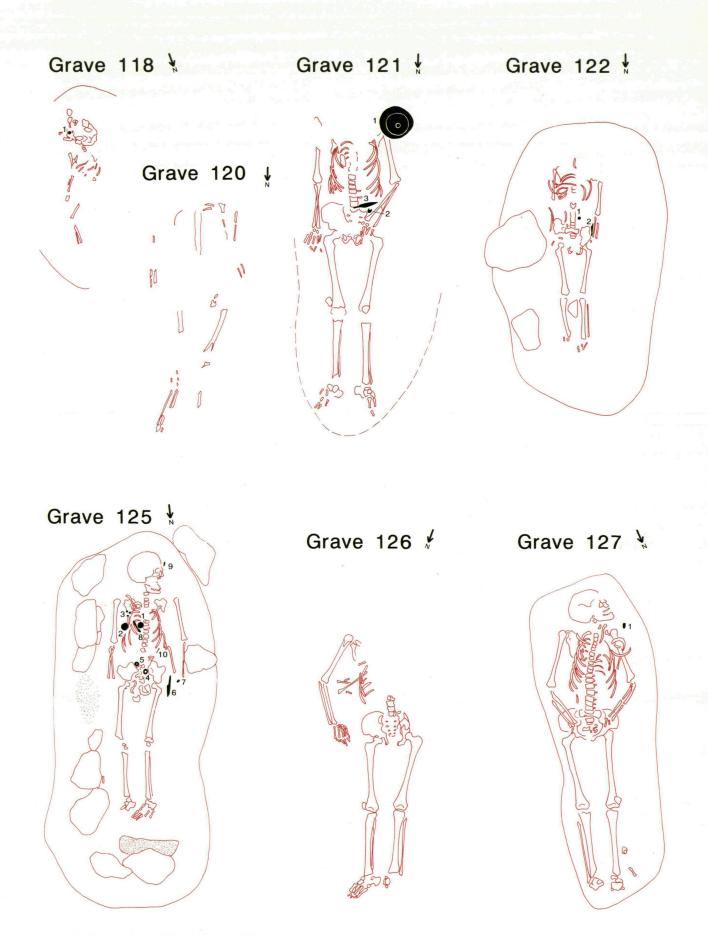


Figure 48 Grave plans 118-127: scale 1:20

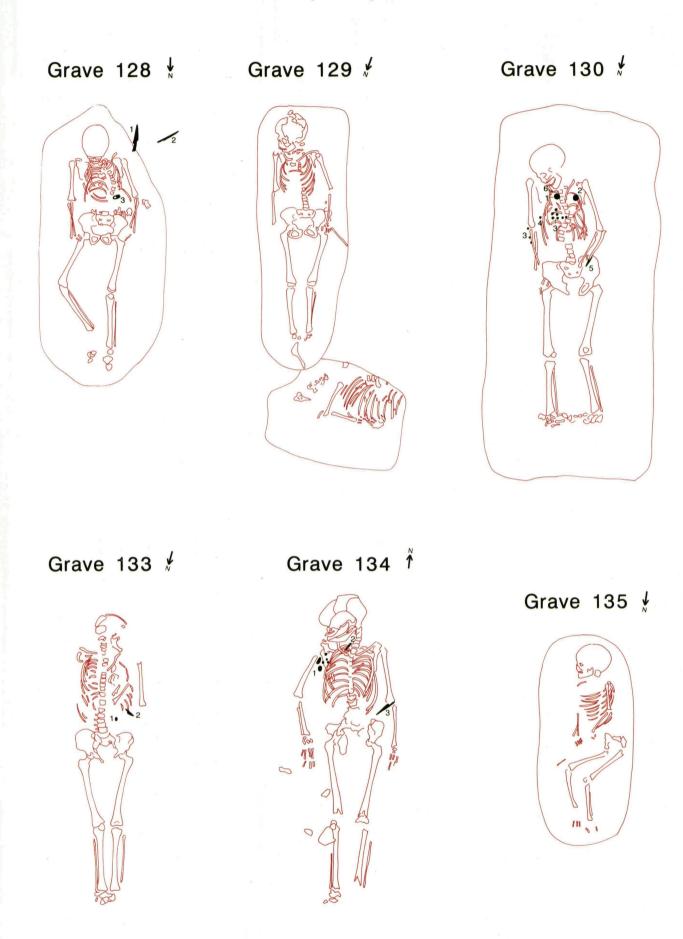


Figure 49 Grave plans 128-135: scale 1:20

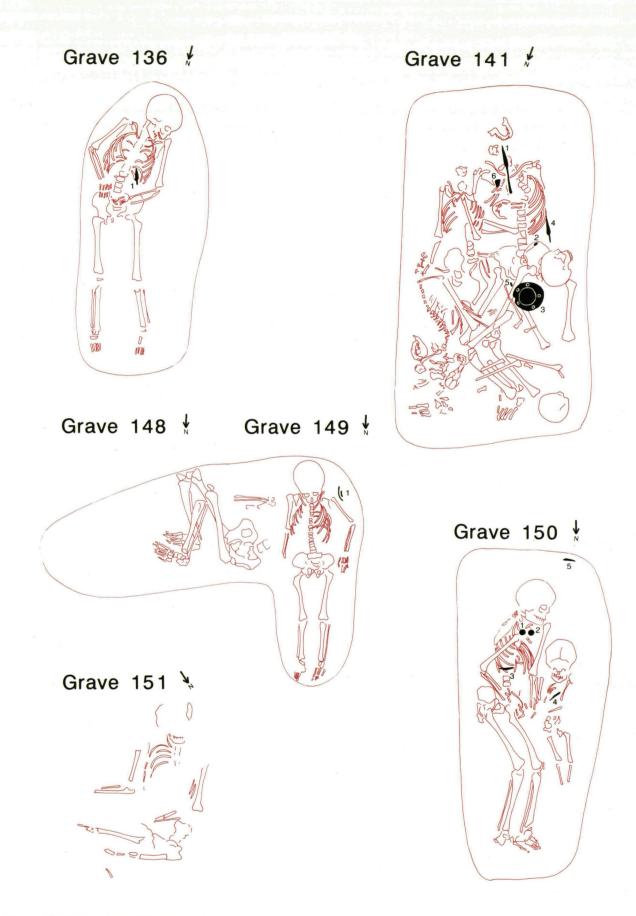


Figure 50 Grave plans 136-151: scale 1:20

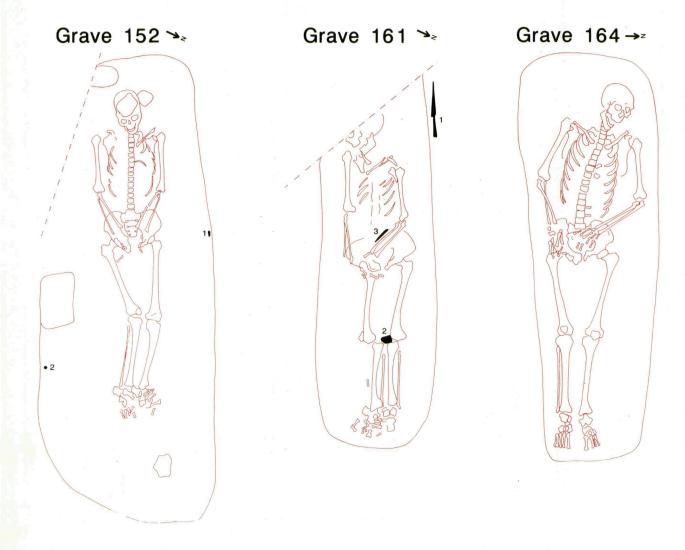


Figure 51 Grave plans 152-164: scale 1:20

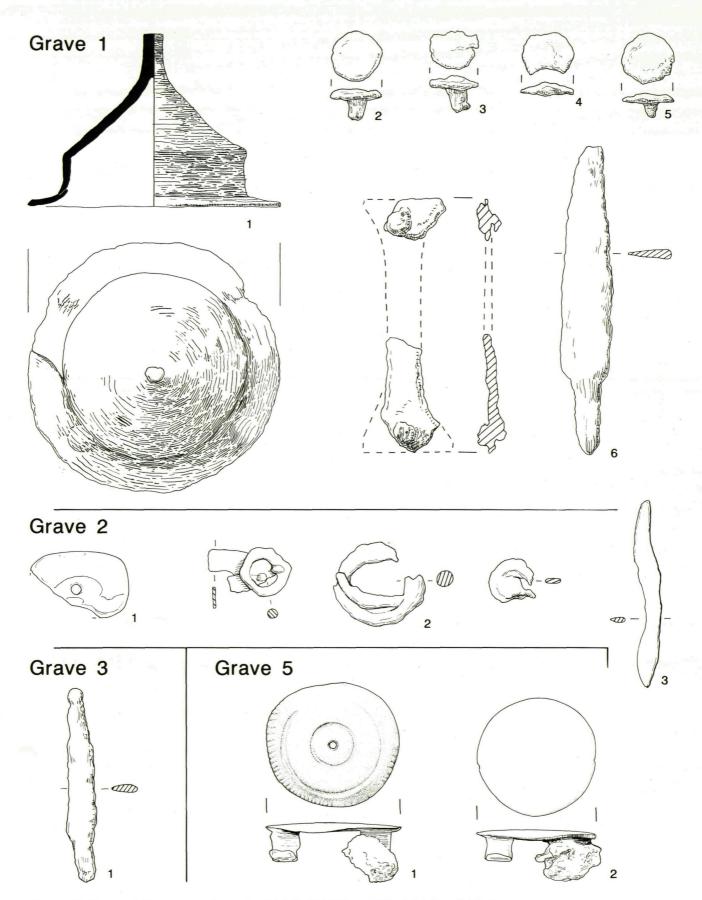


Figure 52 Graves 1-5, grave goods: scales 1:2 1/1-6, 2/2-3 and 3/1. 1:1 2/1 and 5/1-2

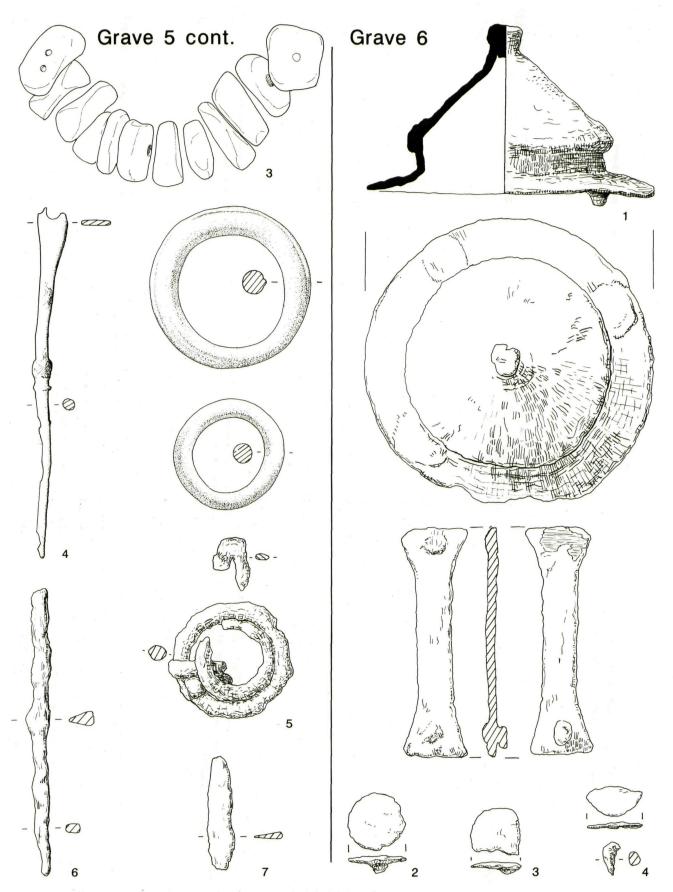


Figure 53 Graves 5-6, grave goods: scales 1:2 5/6-7 and 6/1-4. 1:1 4/3-5

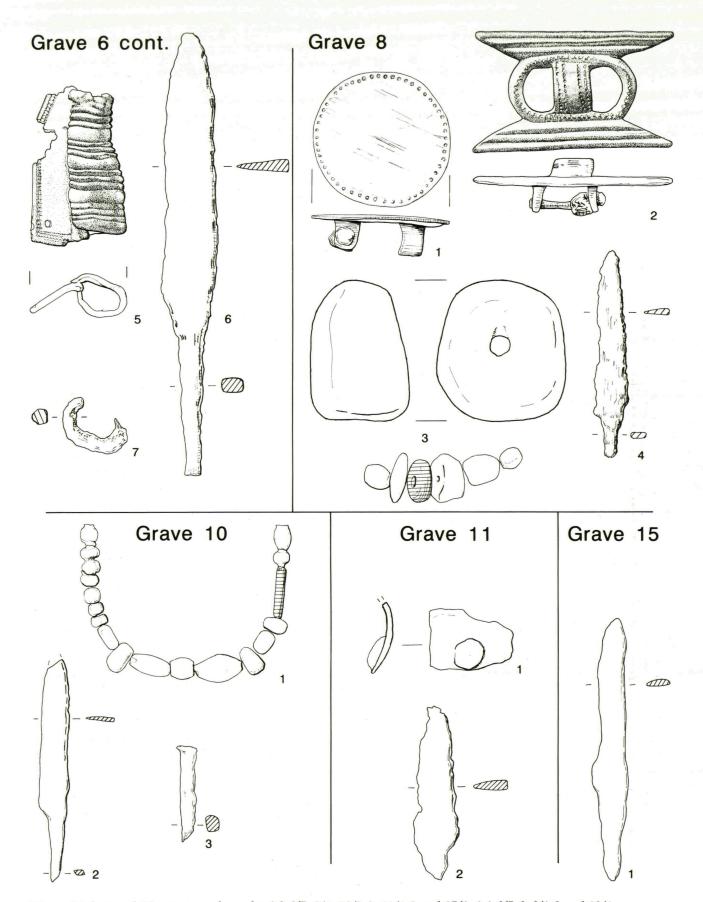


Figure 54 Graves 6-15, grave goods: scales 1:2 6/7, 8/4, 10/2-3, 11/1-2 and 15/1. 1:1 6/5-6, 8/1-3 and 10/1

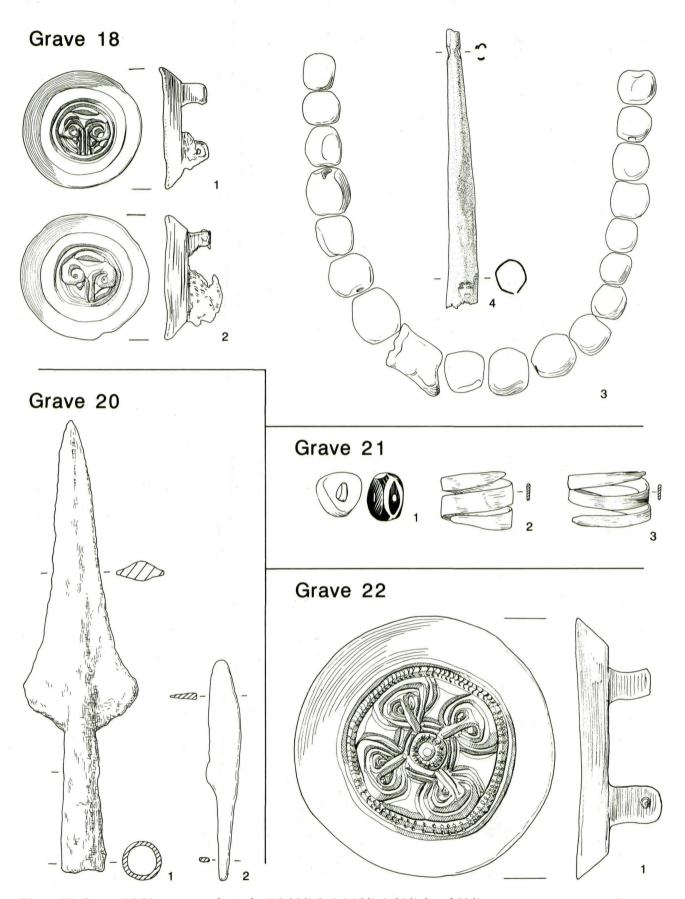


Figure 55 Graves 18-22, grave goods: scales 1:2 20/1-2. 1:1 18/1-4, 21/1-3 and 22/1

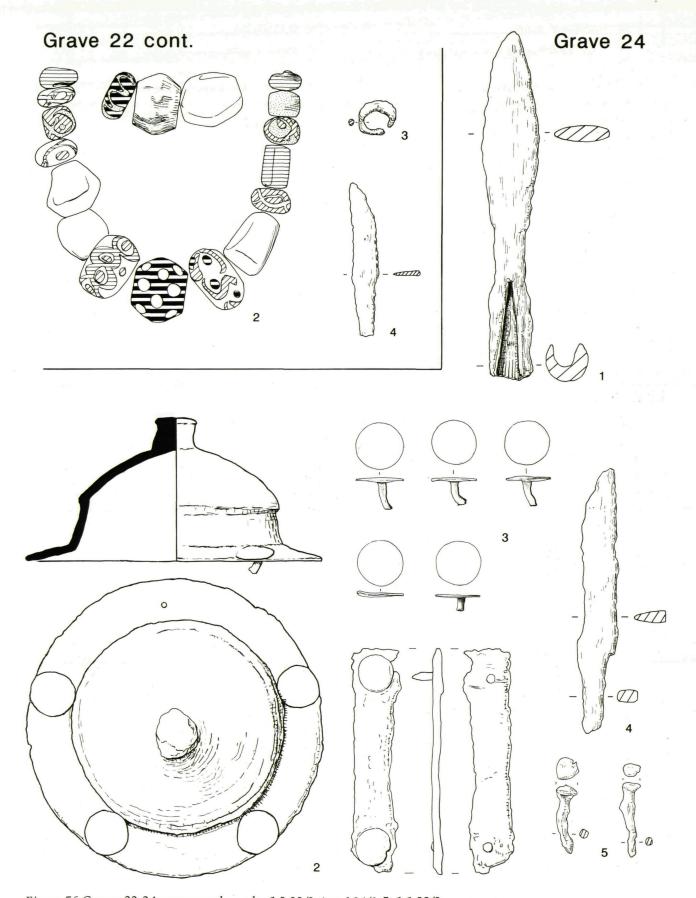


Figure 56 Graves 22-24, grave goods: scales 1:2 22/3-4 and 24/1-5. 1:1 22/2

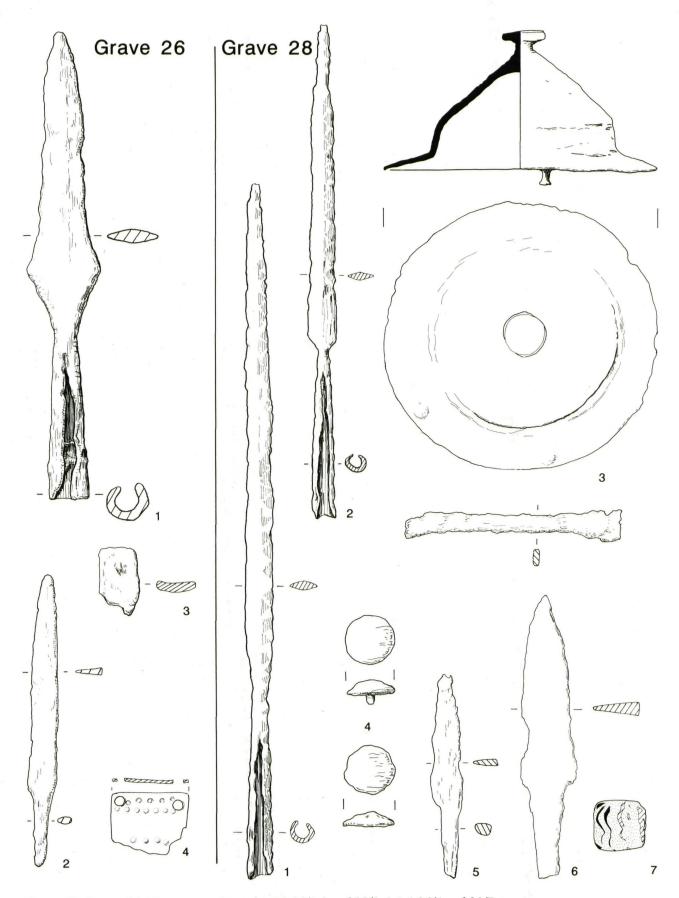


Figure 57 Graves 26-28, grave goods: scales 1:2 26/1-3 and 28/1-6. 1:1 26/4 and 28/7

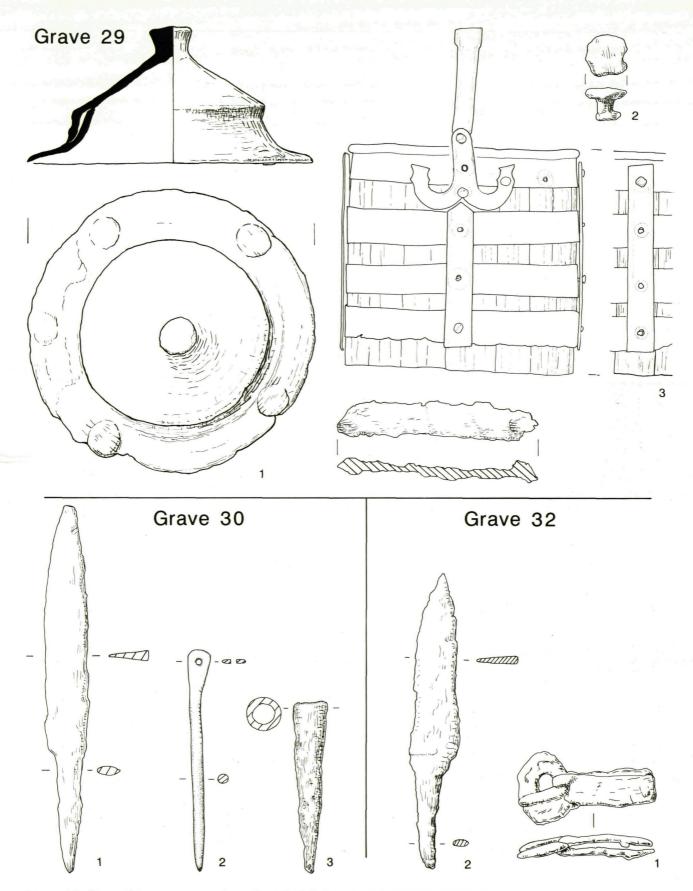


Figure 58 Graves 29-32, grave goods: scales 1:2 29/1-3, 30/3 and 32/1-2. 1:1 30/1-2

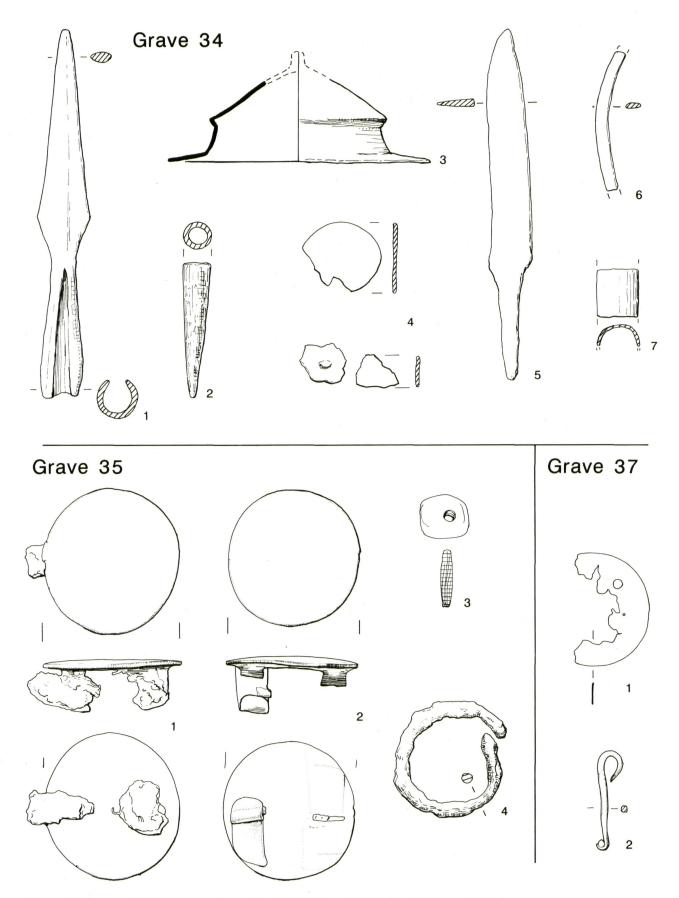


Figure 59 Graves 34-37, grave goods: scales 1:2 34/1-7 and 35/4. 1:1 35/1-3 and 37/1-2

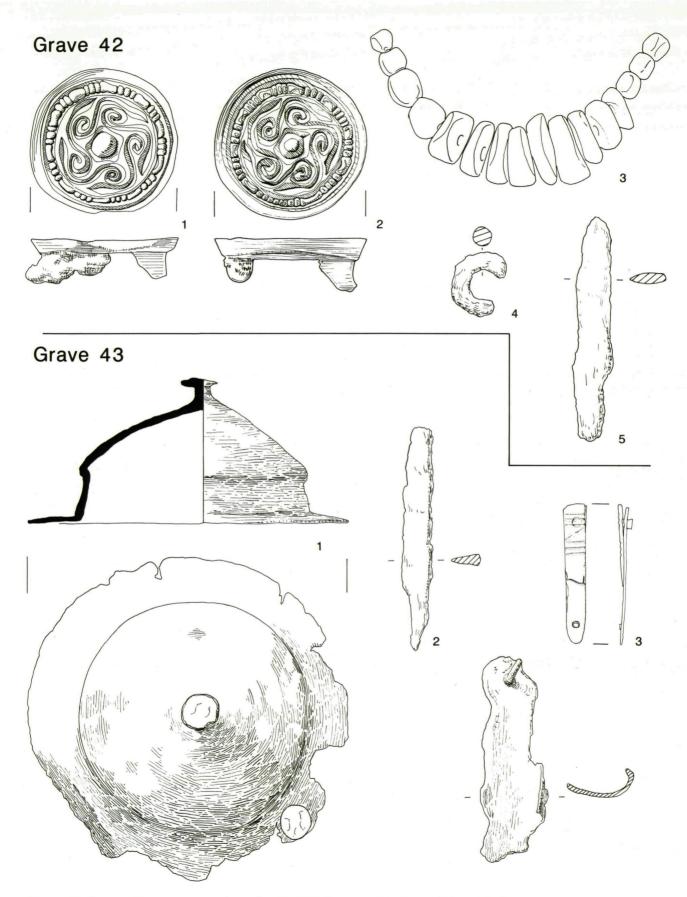


Figure 60 Graves 42-43, grave goods: scales 1:2 42/4-5 and 43/1-2. 1:1 42/1-3 and 43/3

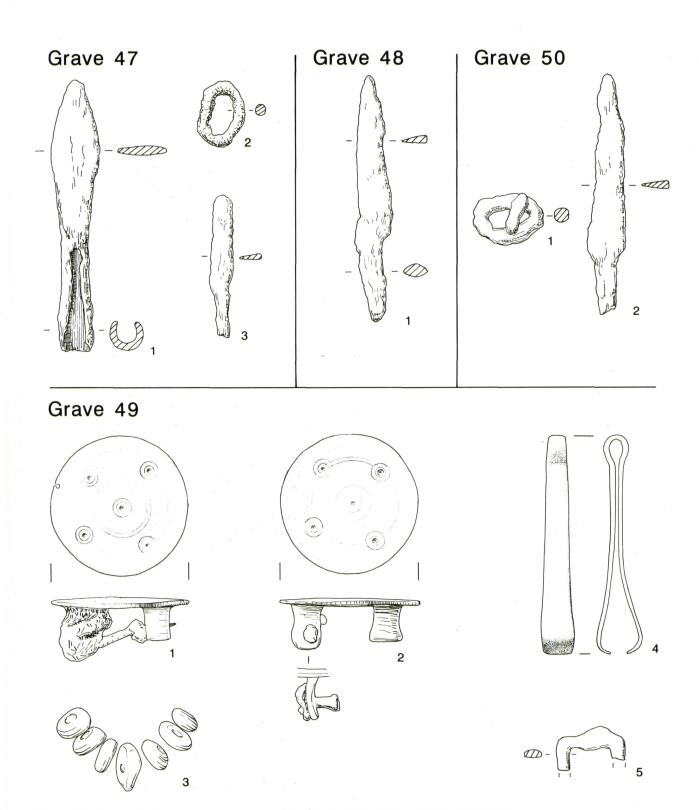


Figure 61 Graves 47-50, grave goods: scales 1:2 47/1-3, 48/1, 49/5 and 50/1-2. 1:1 49/1-4

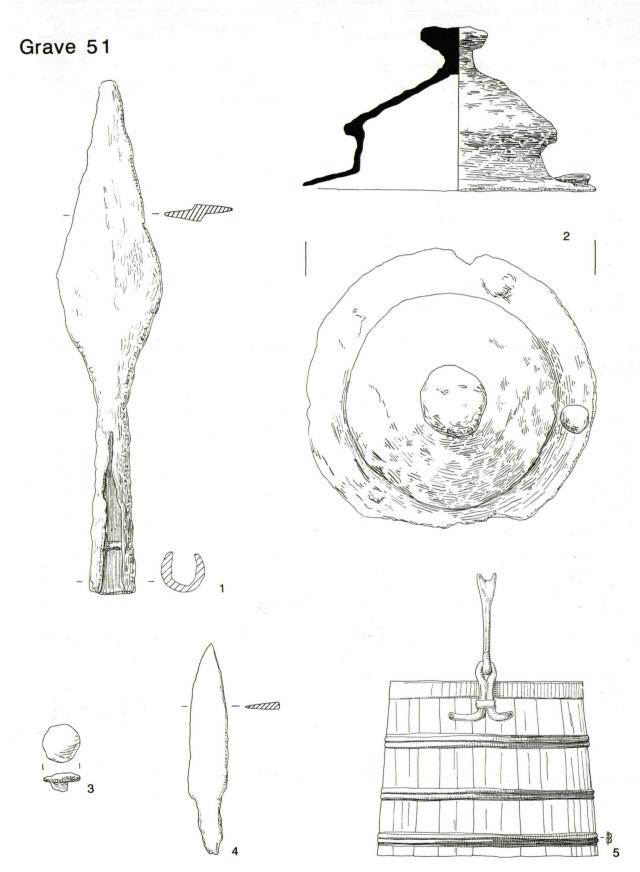


Figure 62 Grave 51, grave goods: scale 1:2

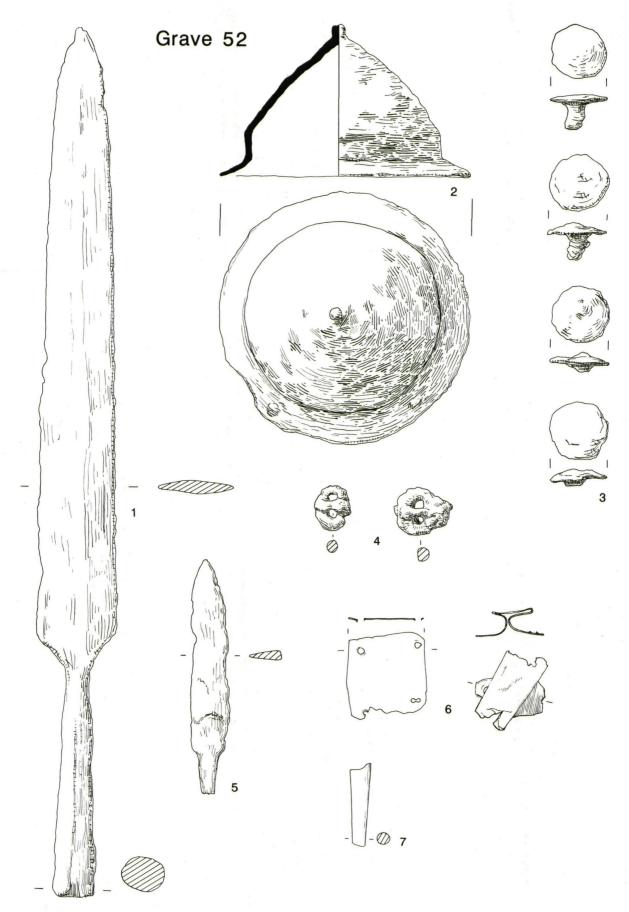


Figure 63 Grave 52, grave goods: scales 1:2 52/1-5. 1:1 52/6-7

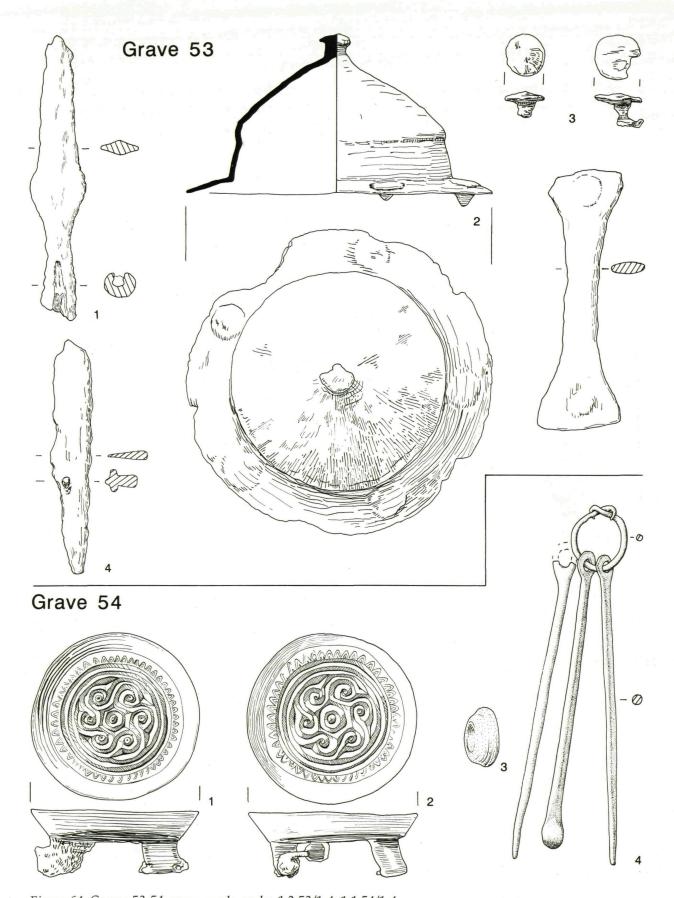


Figure 64 Graves 53-54, grave goods: scales 1:2 53/1-4. 1:1 54/1-4

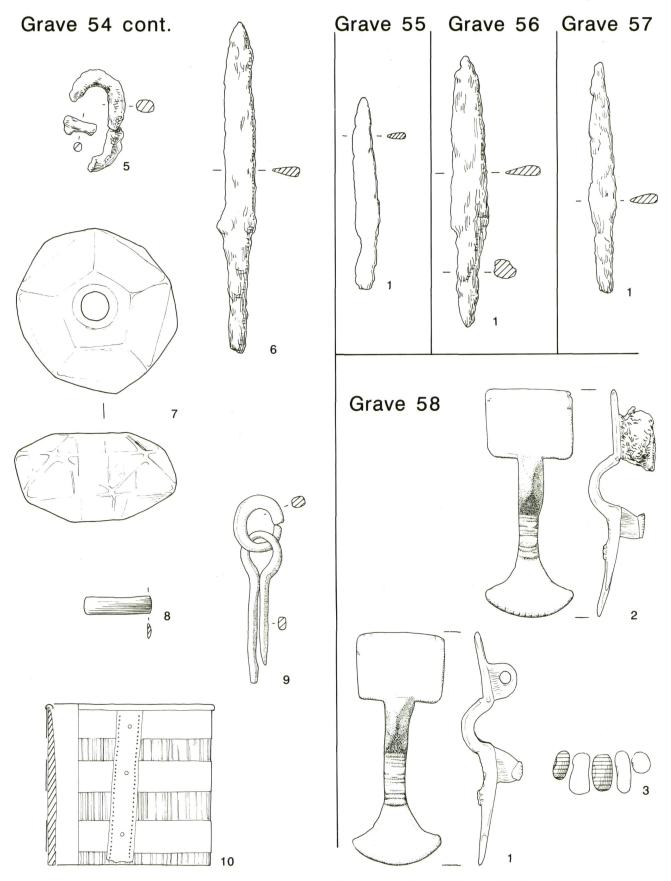


Figure 65 Grave 54-58, grave goods: scales 1:2 54/5-6, 54/10, 55/1, 56/1 and 57/1. 1:1 54/7-9 and 58/1-3

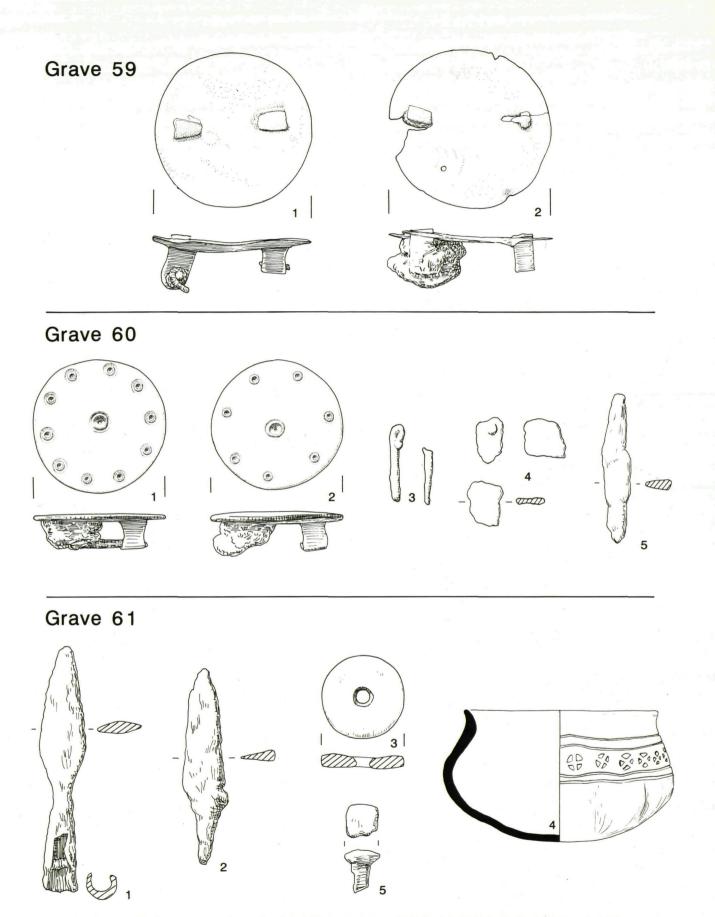


Figure 66 Graves 59-61, grave goods: scales 1:2 60/3-5, 61/1-2 and 61/4. 1:1 63/1-3, 63/5, 64/1-2 and 64/5



Figure 67 Graves 63-64, grave goods: scales 1:2 63/4 and 64/3-4. 1:1 63/1-3, 63/5, 64/1-2 and 64/5

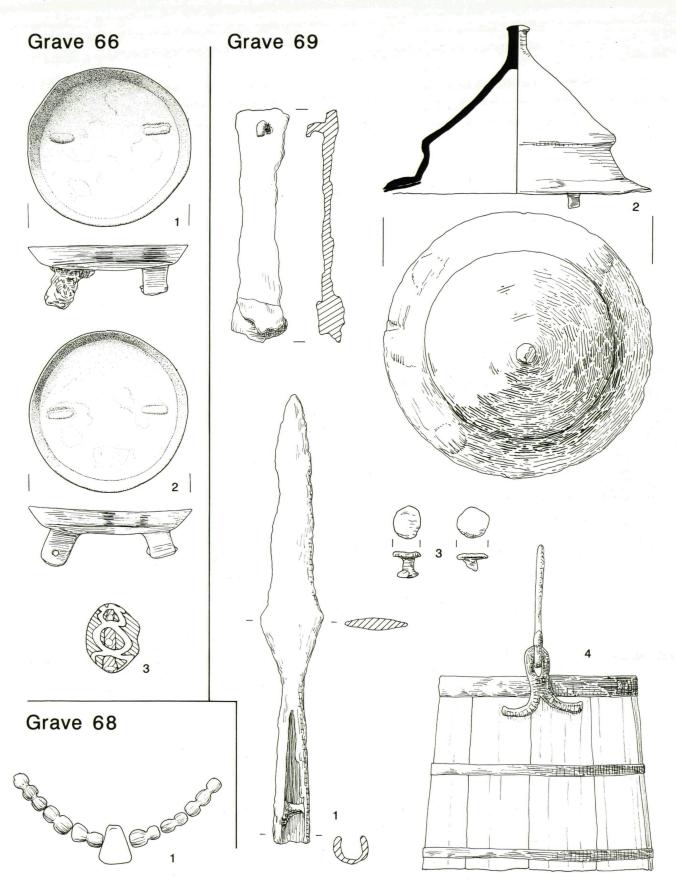


Figure 68 Graves 66-69, grave goods: scales 1:2 69/1-4. 1:1 66/1-3 and 68/1

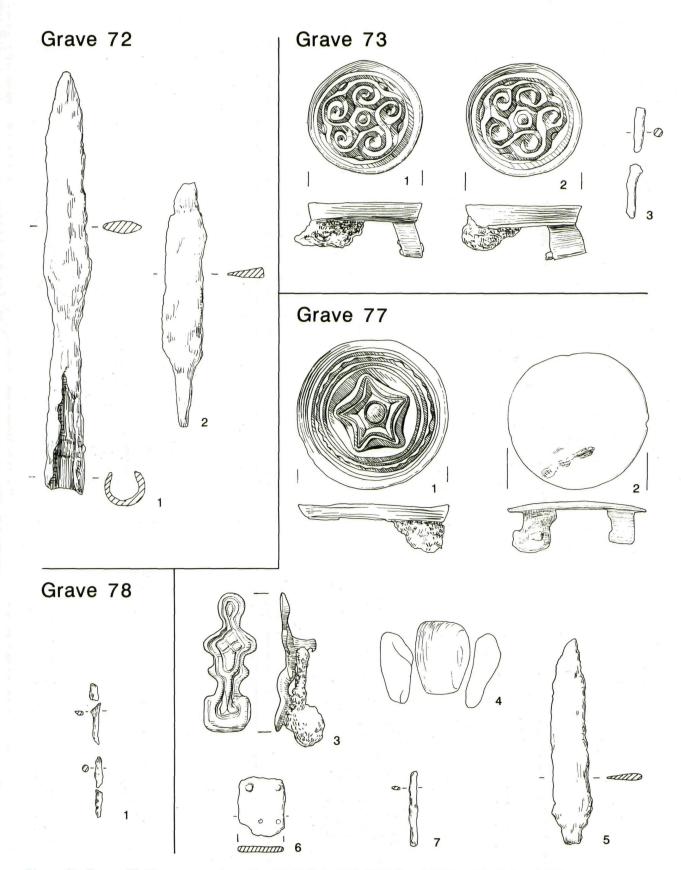


Figure 69 Graves 72-78, grave goods: scales 1:2 72/1-2, 73/3, 77/5-7 and 78/1. 1:1 73/1-2 and 77/1-4

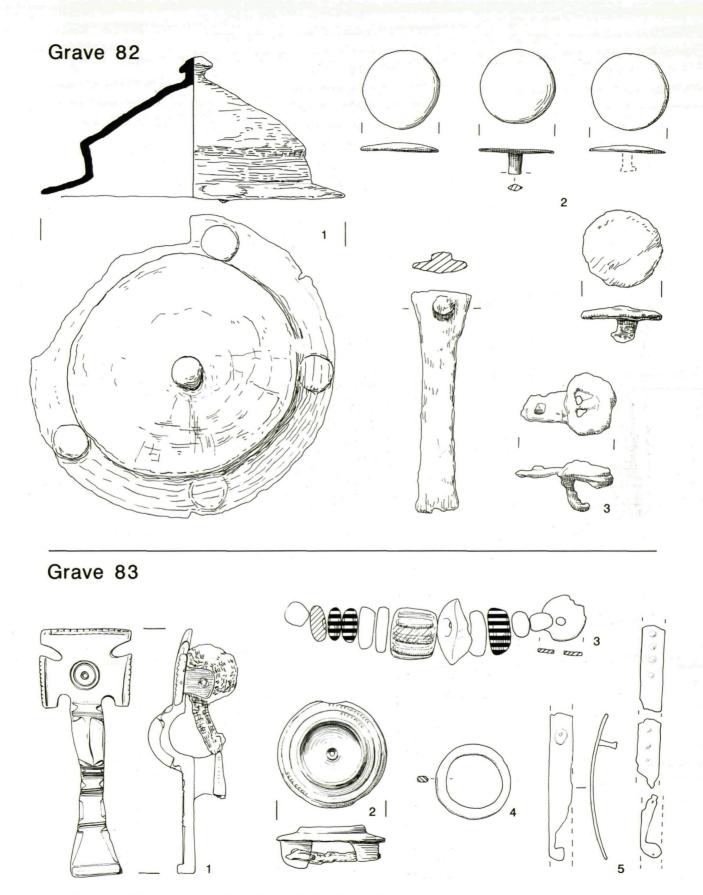


Figure 70 Graves 82-83, grave goods: scales 1:2 82/1-3. 1:1 83/1-5

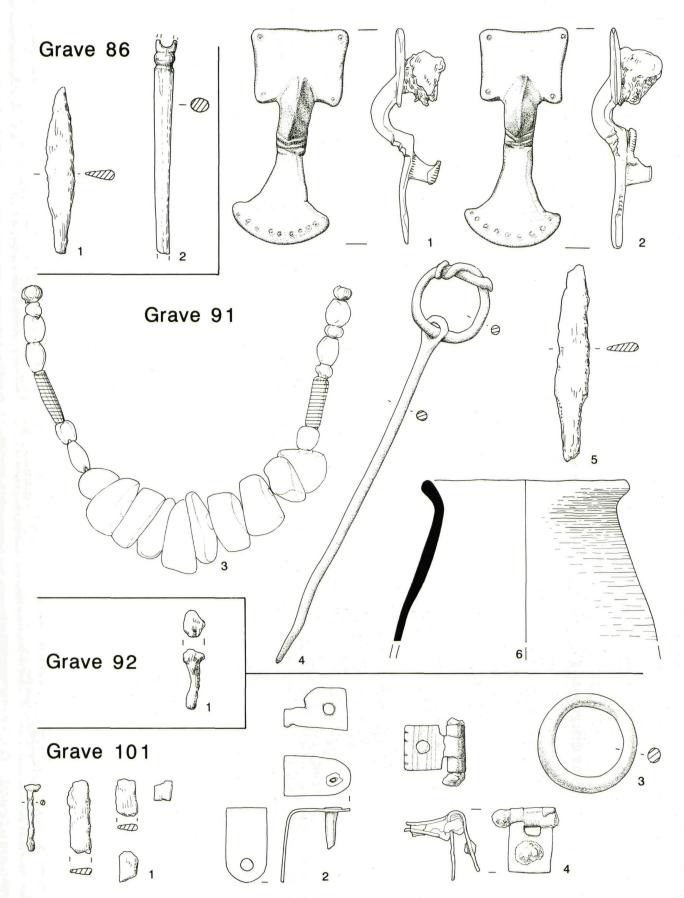
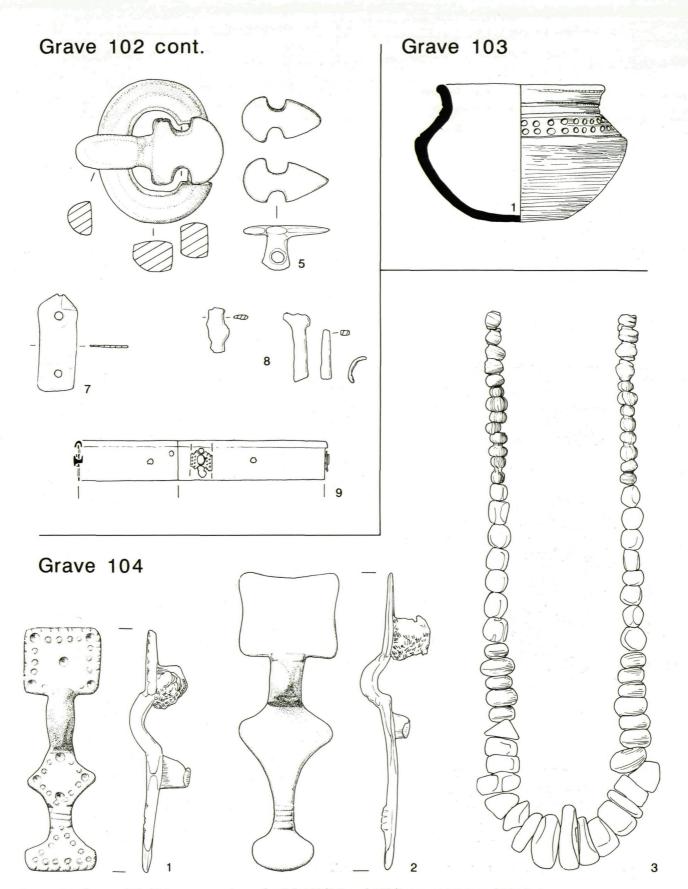


Figure 71 Graves 86-101, grave goods: scales 1:2 86/1, 91/5-6, 92/1 and 101/1. 1:1 86/2, 91/1-4 and 101/2-4

Figure 72 Grave 102, grave goods: scale 1:1



Figure 73 Grave 102, grave goods: scales 1:2 102/4. 1:1 102/2-3



Figure~74~~Graves~102-104, grave~goods:~scales~1:2~102/8-9~and~103/1.~1:1~102/5-7~and~104/1-3

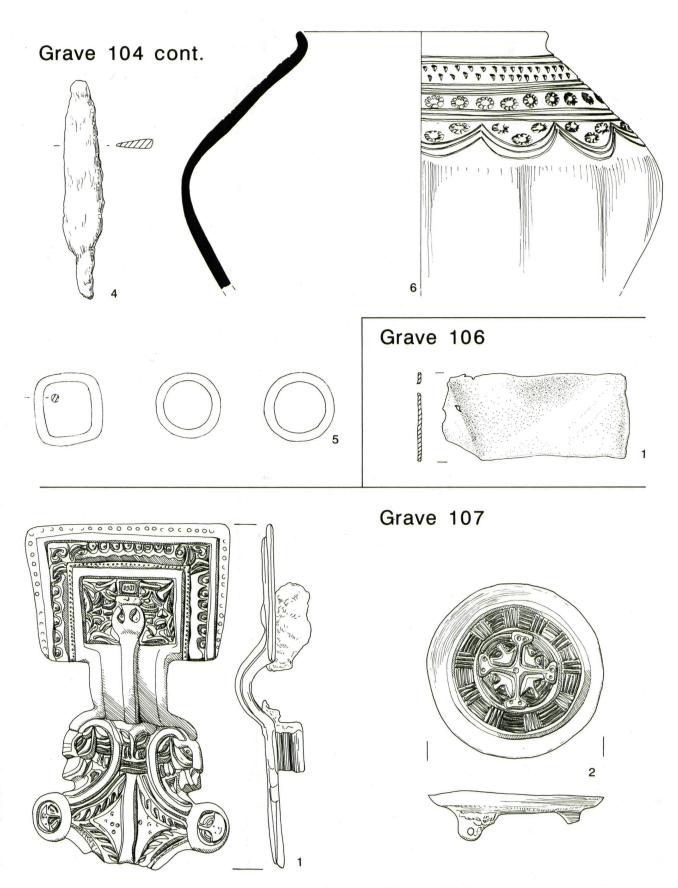


Figure 75 Graves 104-107, grave goods: scales 1:2 104/4-5. 1:1 106/1 and 107/1-2

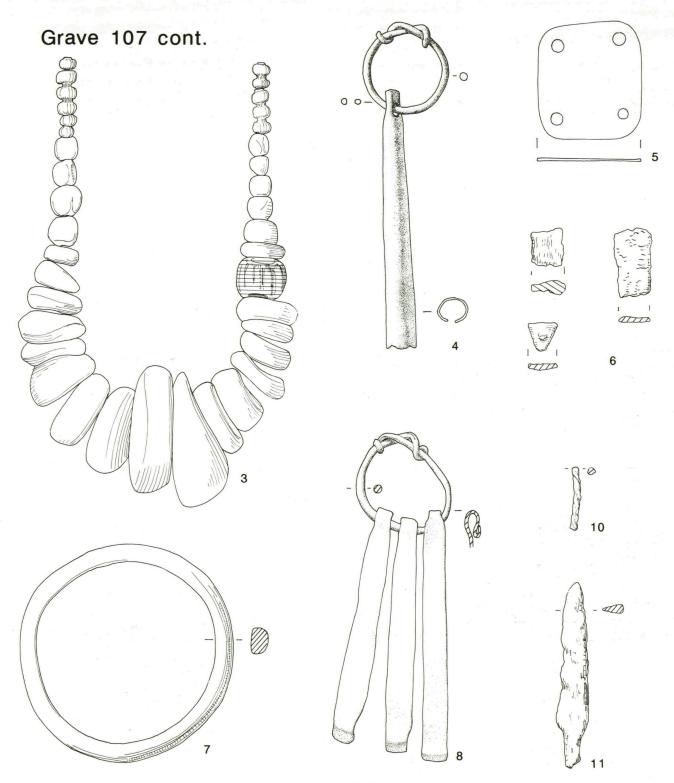


Figure 76 Grave 107, grave goods: scales 1:2 107/6-7 and 107/10-11. 1:1 107/3-5 and 107/8

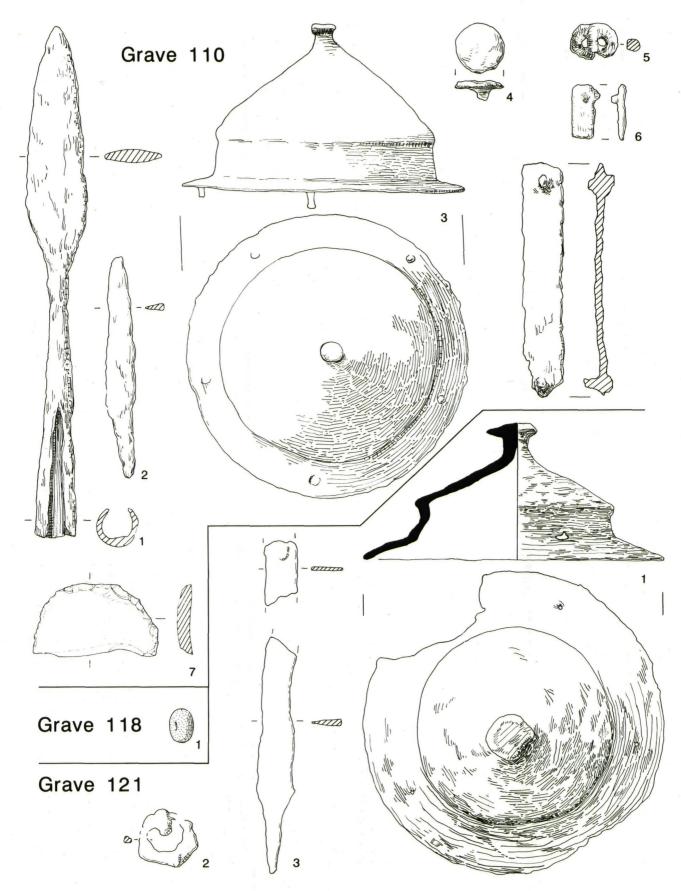


Figure 77 Graves 110-121, grave goods: scales 1:2 110/1-6 and 121/1-3. 1:1 110/7 and 118/1

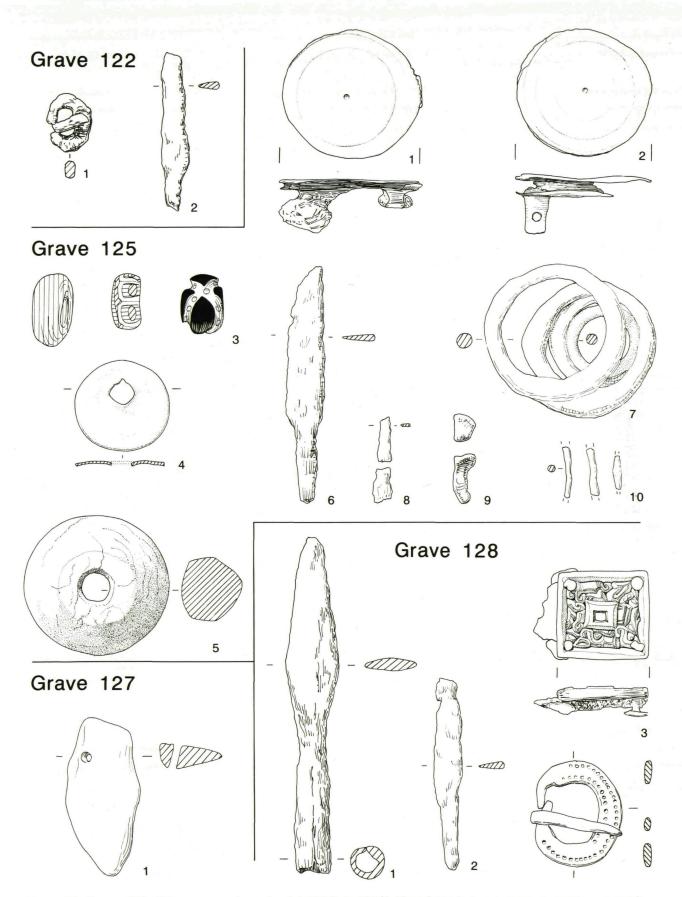


Figure 78 Graves 122-128, grave goods: scales 1:2 122/1-2, 125/6-10 and 128/1-2. 1:1 125/1-5, 127/1 and 128/3

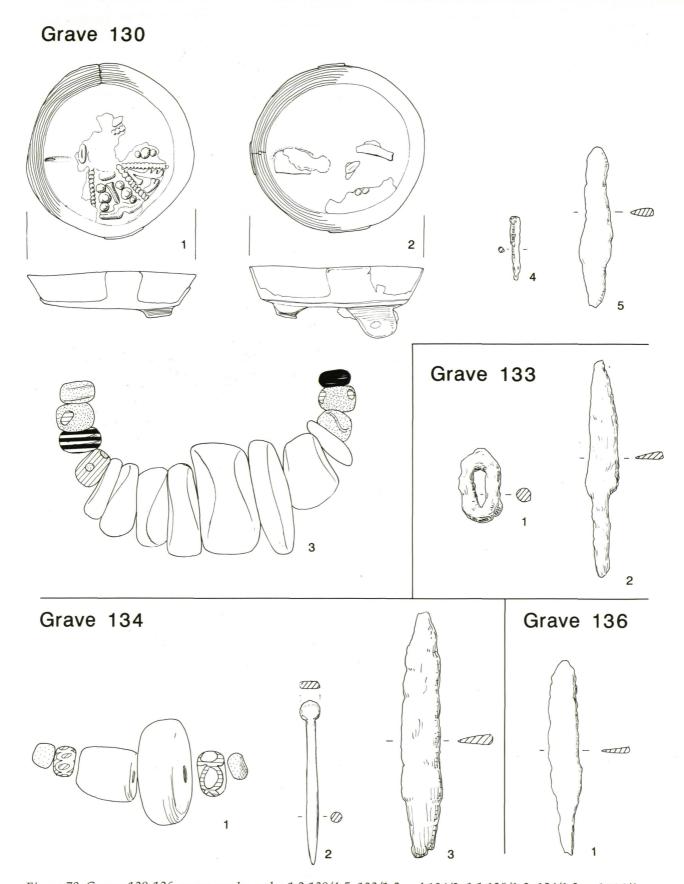


Figure 79 Graves 130-136, grave goods: scales 1:2 130/4-5, 133/1-2 and 134/3. 1:1 130/1-3, 134/1-2 and 136/1

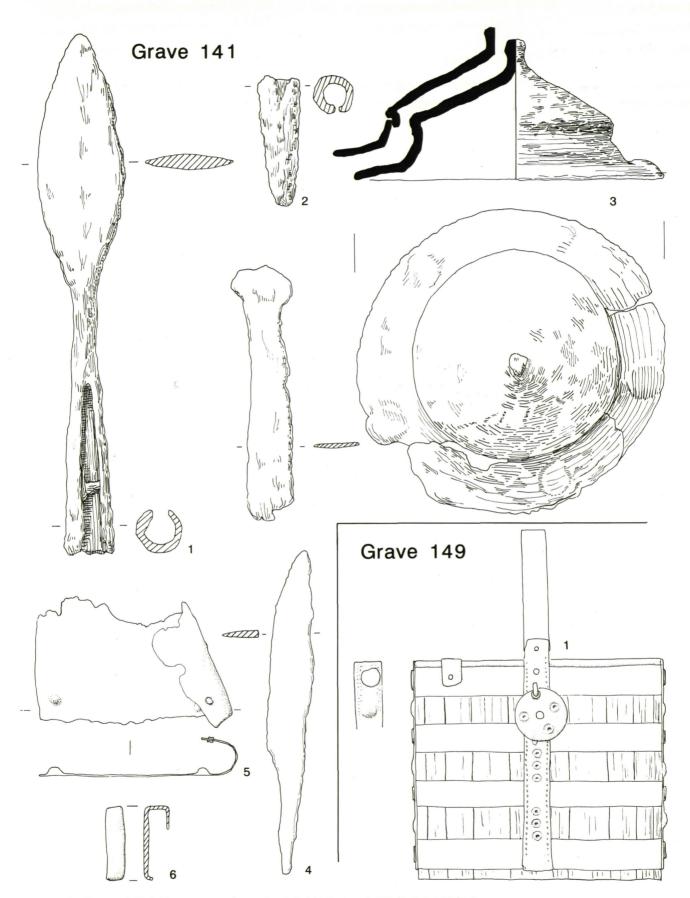


Figure 80 Graves 141-149, grave goods: scales 1:2 141/1-4 and 149/1. 1:1 141/5-6

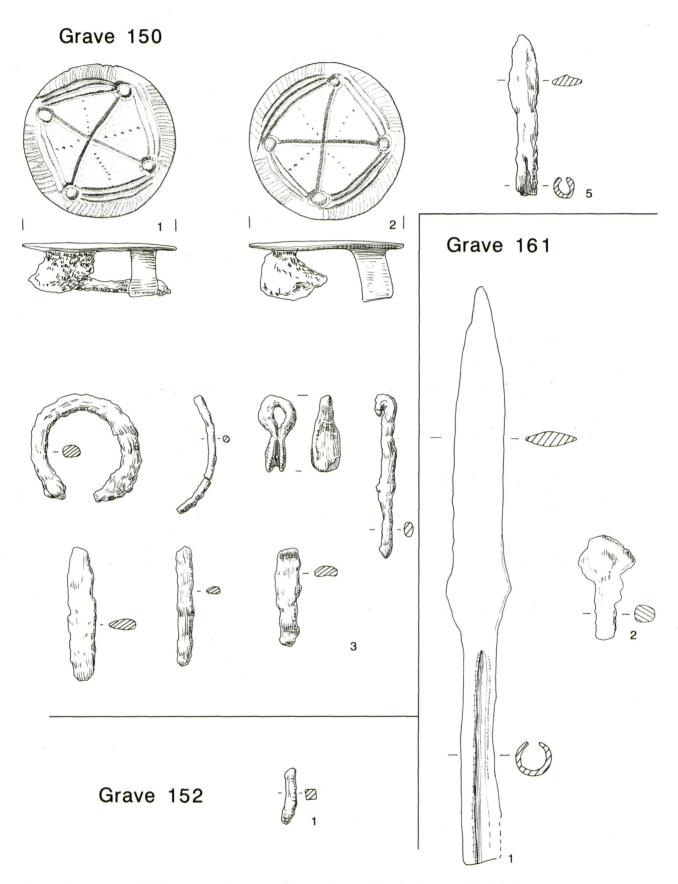


Figure 81 Graves 150-161, grave goods: scales 1:2 150/3-5, 152/1 and 161/1-2. 1:1 150/1-2

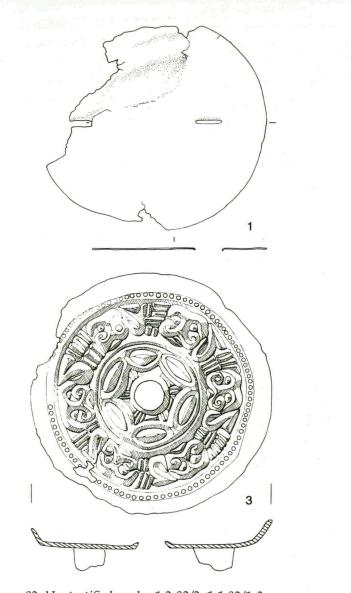


Figure 82 Unstratified: scales 1:2 82/2. 1:1 82/1-3

