
















CHARIOT BURIAL NUMBER 1

- 100 Grave of 001 (chariot burial found by machine 29.6.84).  
101 Box shape in fill.  
102 Axle shape.  
103 West wheel.  
104 East wheel.  
105 Human skeleton.  
106 Cavity.  
107 Skull fragments, part of 105.  
108 Wood, part of 103.  
109 "Wooden" nail (part of 131?).  
110 "Wooden" nail (part of 131?).  
111 Spearhead.  
112 Nail or rivet from shield (part of 133).  
113 Spearhead.  
114 Spearhead.  
115 Horse bit (near nave hoop of 104).  
116 Terret (number 5 from north).  
117 Terret (number 4 from north).  
118 Terret (number 1 from north).  
119 Spearhead on scabbard.  
120 Spearhead.  
121 Terret (number 2 from north).  
122 Terret (larger than 116 - 118, 121; number 3 from north {middle}).  
123 Spearhead (middle one in group of 3).  
124 Bronze disc (to west of sword 125).  
125 Sword (iron with bronze front plate on scabbard).  
126 Nave hoop (upper of 2, part of 104).  
127 Bronze disc (to east of sword 125).  
128 Iron nave hoop (upper of 2, part of 103).  
129 Spearhead (southern one in group of 3).  
130 Iron binding (broken off 133, part of a shield? northern end).

- missing or  
with 133

-  ✓ 131 Iron binding (part of a shield? southern end).
-  132 Iron stud (part of shield?). *sent*
-  133 Iron binding (includes 112).
-  ✓ 134 Iron dog (near eastern end nave hoop 126).
-  ✓ 135 Antler lynch pin (east side).
-  ✓ 136 Iron dog (near east nave hoop 126).
-  ✓ 137 Iron horse bit (lying almost vertically, near tyre of 104).
- 138 Febfoam cast of west wheel spokes and fellow (103).
- 139 Iron nail (or cleat) within west tyre (103).
-  140 Iron tyre (east wheel 104).
-  141 Iron tyre (west wheel 103).
- 142 Iron object (beneath tyre 104).
-  ✓ 143 Antler lynch pin (resting on lower nave hoop 144).
-  ✓ 144 Iron nave hoop (lower, west side).
-  ✓ 145 Iron nave hoop (lower, east side).
-  146 Iron nail or pin (near head, possibly part of sword hilt).
- 147 Febfoam cast of axle end (east side).
- 148 Febfoam cast of axle end (west side).
- 149 Yoke (incorporates terrets).
- 150 Pig bones.

 ?  
 ?  
*unlabeled*

151 *ditto*

1. Enclosure:

Quarrying removed the north and east ditches before Archaeologists arrived on the site, but the turn at the north-west and south-east corners survived sufficiently to show that the enclosed area cannot have exceeded c. 6.5 - 6.6 in east-west and c. 6 m north-south. Outside was the ditch which was nowhere more than 1.4 m wide and had a maximum surviving depth of 0.21 m.

2. Grave:

The grave appeared to have been placed slightly to east of centre inside the burial enclosure. The northern end and much of the east side had been lost to the quarry by the time of excavation, so that the plan cannot be reconstructed with certainty. If the layout was formerly symmetrical, then the plan would have been sub-triangular, but it is not known whether or not there was once a northward pointing slot for the chariot pole, as in the case of burial number 2. Such a slot would have projected from the apex.

At the surface the grave measured 2.83 m across the base and at least 2.60 from north to south. At the level of the grave floor these measurements were 2.25 m and c. 2.20 m. The sides were vertical, or even overhung, with a flat grave floor, and the maximum depths was 0.85 m.

The grave was filled with gravel which was slightly darker than that into which it was cut. In the centre this was quite loose and in places quite dark, but towards the sides the gravel was lighter and far more compact.

### 3. Structures within the Grave:

The contrasts in the fill of the grave indicated the existence of former wooden structures. The uppermost of these was represented by a roughly rectangular patch of darker filling, loose in consistency, which in places was separated from the lighter surrounding fill by a band of clean white gravel c. 0.05 to c. 0.07 m thick. This structure was clearly visible from a point c. 0.35 m above the base of the grave, although in the quarry face the clean gravel band was visible in section and consisted of much pitched gravel which occurred as high as 0.73 m above the base of the grave, but which was lost at a point c. 0.18 m from the bottom. The three zones of fill appear to represent:-

- i) The original backfilling of clean gravel which encased the wooden parts of the vehicle (axle and possibly pole, also bodywork or burial chamber.
- ii) Collapse following decay of the timber superstructure or coffin/cist lid; this took the form of darker, loose gravel.
- iii) Replacement of completely decayed vertical timbers by clean, loose, pitched gravel.

In the lowest 0.20 m of the grave the central space was occupied by two wheels laid side by side east west. The diameter of these was x x (east) and x x (west). The wooden parts of both wheels were in places preserved by iron salts where the wood had been in contact with the iron tyres or iron nave bands, but the western half of the west wheel, where it had not lain beneath the wooden superstructure but had been encased in the gravel of the initial backfilling, was preserved in shape by empty voids within the gravel. These were filled with an expanding plastic foam which recovered much of the felloe, nave and six out of an original twelve spokes.

The axle had lain along the south side of the grave where in the centre it had been protected by the wooden superstructure. The two ends, as is the case of the west wheel, had been firmly encased in gravel and with decay had left behind voids.

The structures preserved as soil marks or voids in this way may be summarised as:-

103, Two wheels, each (presumably) of 12 spokes, and x m in  
104. diameter, laid side by side on the floor of the grave, with the rims touching the floor in the centre.

102. A wooden axle 1.82 m long but not parallel to the end of the grave. The thickness of the axle at the ends was c. 0.08 - 0.09 m.

101. A rectangular timber structure with vertical sides c. 1.51 m long by 0.94 m wide and at least 0.57 m high. The southern end of the structure was aligned over the axle line and not parallel to the end of the grave.

There was no sign of a pole, although this might have survived only beyond the northern end of 101, an area largely destroyed. The closeness of the two wheels indicates that had a pole existed beneath 101 it would have had to have been laid over the wheels.

#### 4. The Burial:

Placed centrally within the central area (and enclosed by the limits of the rectangular structure 101) was a young adult (male?) lying flexed on the right side with head to north. The right arm was extended with the wrist near the knees. No hand bones were found and the humerus had been broken and repaired during life. The left arm was bent with the forearm resting over the stomach.

## 5. Grave Goods:

### i) Chariot Fittings:

The wooden structures listed in part 3 included very little metal. This was confined to the wheels, both of which had an iron tyre (140, 141) and two iron nave hoops (126, 128, 144, 145). Two iron dogs (134, 136) had been attached to the nave of the eastern wheel. Two pieces of iron found close to the rim of the west wheel (139, 142) may have been embedded in the felloe. Two antler lynch pins were found, next to or close to the west and east wheel hubs. The west pin (143) was beneath the junction of spokes and nave and could have been secured to the nave before wheel and pin were placed in position. The eastern pin (135) was below the level of the spokes, but could have fallen there.

### ii) Horse Harness:

Five bronze terret rings (116, 117, 118, 121, 122) extending in a line 1.04 m long must indicate the position of a wooden yoke. The central ring was a little larger than the others. These lay in a line in front of (i.e. on the west side of) the body, contained within the rectangular area defined by 101.

Two horse bits were found in the area of the east wheel. One (115) was curved around the hub, beneath the eastern side of 101 while the other (137) lay beyond, in the area once occupied by spokes.

### iii) Weapons:

An iron sword with a bronze scabbard front (125) was laid along the body, parallel with the yoke and sides of 101, from the left shoulder to the left hip. On either side, at the level of the suspension loop, were two sheet bronze discs with perforations for attachment to a belt (124, 127). There can be little doubt that it was intended that these should secure the scabbard in place on the baldrick or sword belt.

A half cylindrical mount with two nails (131) and broken parts which appear to constitute a second (130, 133) lay parallel with the sword, yoke and sides of the supposed wooden structure (101). Parallels (Burton Fleming, Wetwang Slack, Grimthorpe, North Grimston) suggest that these had once been on the spine of a shield and that this had faced downwards. This would have been level with the sword in relation to the trunk of the dead person. Seven spearheads (111, 113, 114, 119, 120, 123, 129) were found all approximately within the area covered by timber structure 101, but in positions which indicate that the shafts must have been broken. One (111) lay across the line of the axle (102) and effectively beneath the southern end of 101, pointing towards the side of the grave.

iv) Food:

Bones from a fore-quarter of a pig were laid in the chest region and over the right arm (150).

6. Order of Burial:

The compression of material in the grave with the decay of organic matter leaves some uncertainty over the order of burial of the individual elements:-

- i) The two wheels, possibly with lynch pins attached (see position of 143) were laid on the floor of the grave.
- ii) Before this or later the axle was laid along the southern end of the grave. If a pole was attached this should have extended under or over the rims of the wheels where they were closest. No signs of a pole were seen in the surviving area of grave; if under the wheels the pitch on the tyres might be expected to have been less. If over the wheels more displacement of bones etc. could be expected.

- iii) Horse bits were laid on the east wheel and appear to have slipped between the spokes (137) or rested on them (145). This was done before the burial of the wooden superstructure, but not necessarily before the burial of the body and other grave goods.
- iv) The body was laid out over the wheels and toes of the left foot extended over the line of the axle. It is not known whether or not there was anything between the body and the wheels (any signs of wood on underside of grave goods?), but the arrangement of body and object suggest that the timber structure (101) was already in place. However, one spearhead (111) extended beneath the line of the southern side of 101 as it was revealed as a soil mark.
- v) The pig quarter, sword, belt, shield and spearheads and yoke were placed in the central area. The sword and its attached belt were beneath one of the spears (119). The relative heights of a spearhead (123) and a terret (121) suggests that the yoke was put in after the spearhead. It is presumed that the spear shafts were broken before being placed in the grave. The maximum overall lengths for the shafts and heads are given below, the lengths if contained by structure 101 are given in brackets:-

WK 111	1.90 m	(1.56 m)
WK 113	1.20 m	(0.95 m)
WK 114	1.10 m	(0.88 m)
WK 119	1.30 m	(0.45 m) overlapped by southern side of 101 wooden frame
WK 120	c.0.95 m?	(c. 0.51 m)
WK 123	1.42 m	(c. 0.42 m)
WK 129	1.34 m	(c. 0.47 m)



The wooden shield (represented by two fittings) could have been beneath pig, sword and spearheads, or over the pig, under the sword and spear, or over all the others and facing boss downwards.

The sword may have been wrapped in cloth. Certainly there was cloth replacement on the underside.

- vi) A wooden covering was placed over the whole central area, possibly attached to the frame 101 which might have been an inverted chariot body. Perhaps more likely is that the frame was already there, possibly open at the south (where overlapped by spearhead 111), and possibly attached to the axle. Open sections of the sides and the open top would be filled with extra pieces of wood, and the grave backfilled over them.

#### 7. Subsequent Filling Processes:

With the central space enclosed material excavated from the grave would be packed around and over it to provide some of the covering mound. That the area inside wooden structure 101 was not initially filled with gravel is indicated by the contrast in the filling, which was loose and contained more dark soil; also by the relaxation of the jaw (not likely when encased in a gravel matrix); also the contrast in the voids where wood was initially encased in gravel and the absence of traces where gravel got into the central cavity only after the wood had decayed.

The gradual decay of the wooden elements and the collapse of the roof resulted in the infilling of the central area with gravel and soil from the overlying fill and mound material. Soil particles were able to percolate through this filling giving a darker appearance and contrast to the first backfilling.

The complete decay of wood left voids where the ground was most densely consolidated, particularly as this was cemented by a clay matrix (the "soamy" stuff). Between the initial fill and the central fill which followed collapse of the wooden cover decayed wood was replaced by steeply pitching pieces of very clean gravel which were visible in both plan and section. In a future excavation the removal of this material might give further clues to the nature of the superstructure.

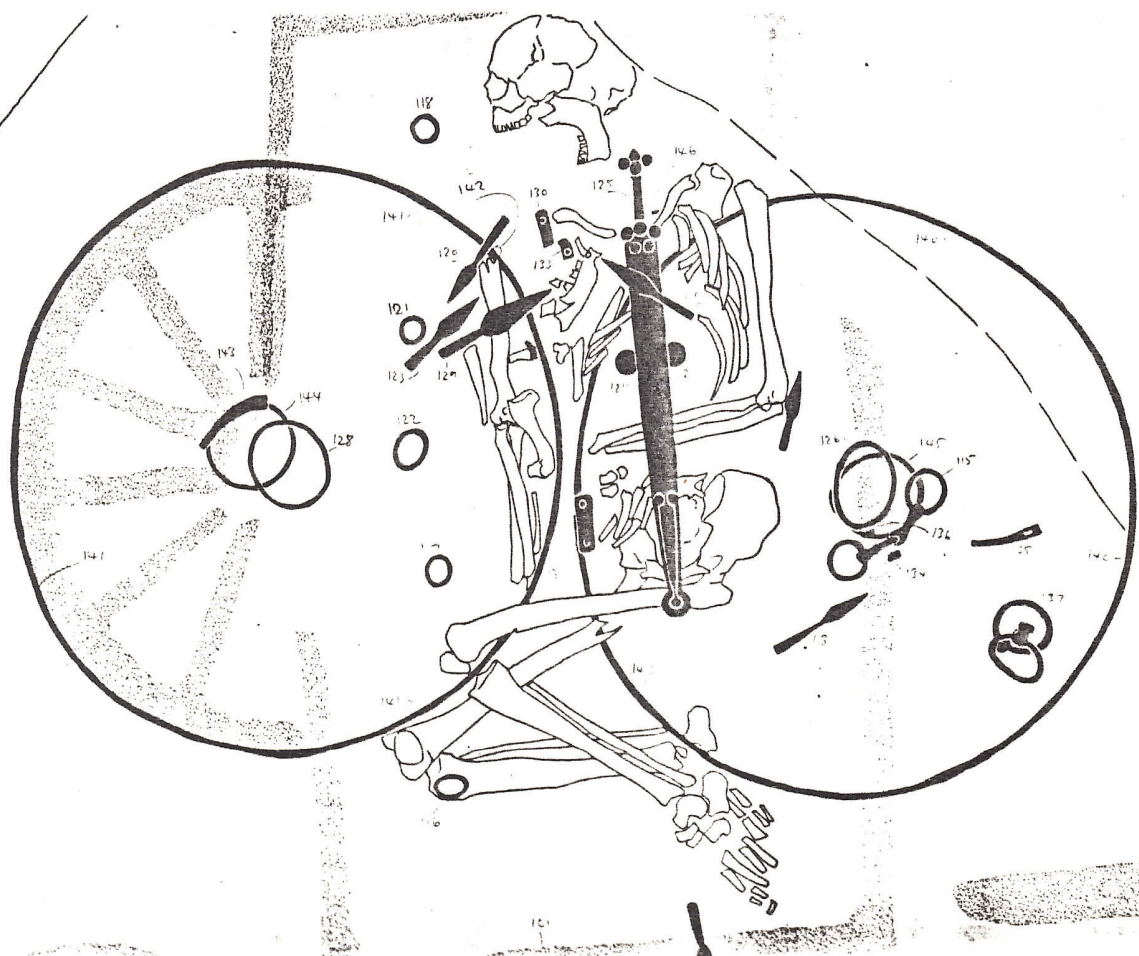
8. Interpretation of Grave Infilling - Summary:

There is clear evidence that the vehicle was dismantled. The wheels were laid on the floor of the grave first, along with lynch pins and horse bits.

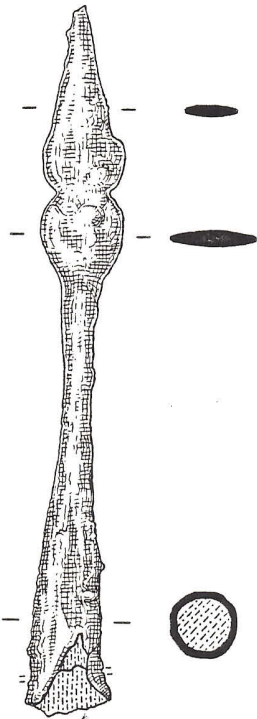
The superstructure and axle, possibly with the pole detached or deliberately shortened, were laid out over the wheels.

The body was arranged inside the chariot body, with the pig, weapons and yoke.

The top of the chariot body was covered and spaces in the sides were filled in, and the grave was backfilled.

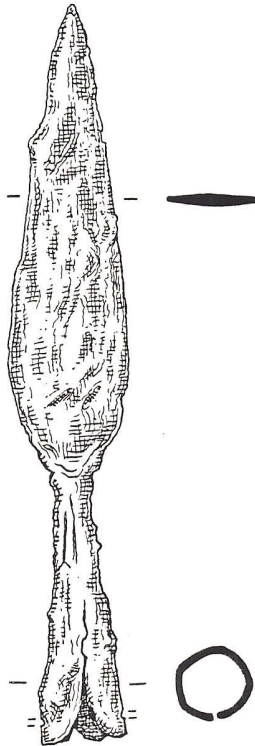


113  $\frac{1}{2}$

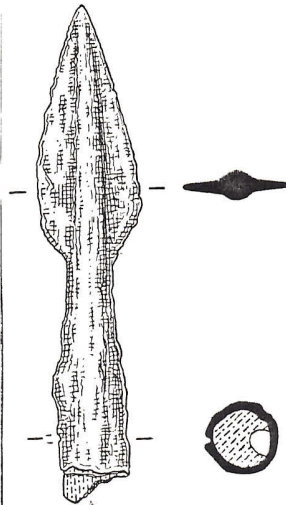


wood

129  $\frac{1}{2}$

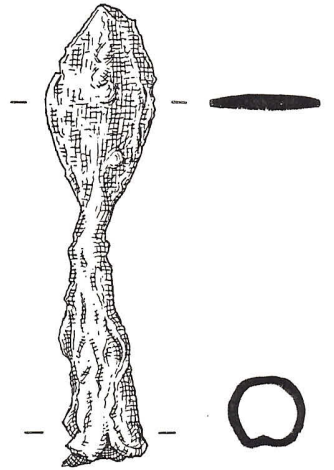


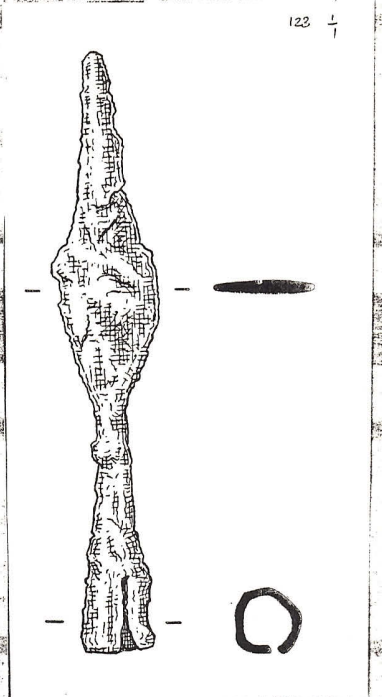
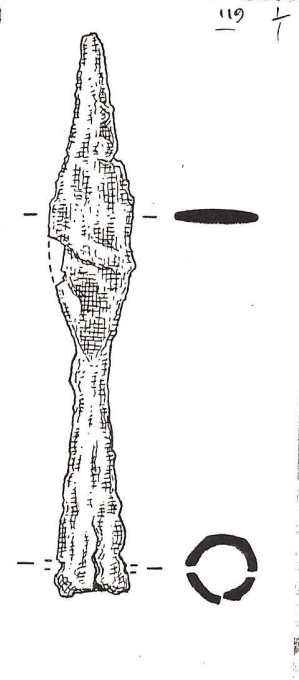
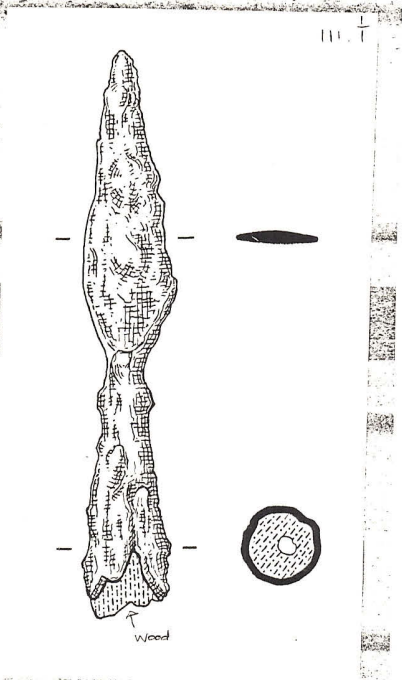
114  $\frac{1}{2}$

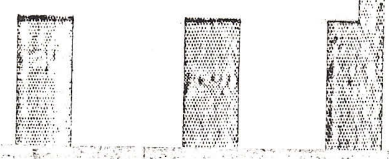
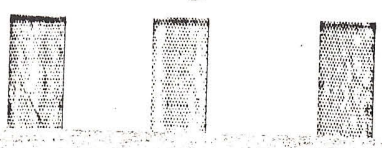
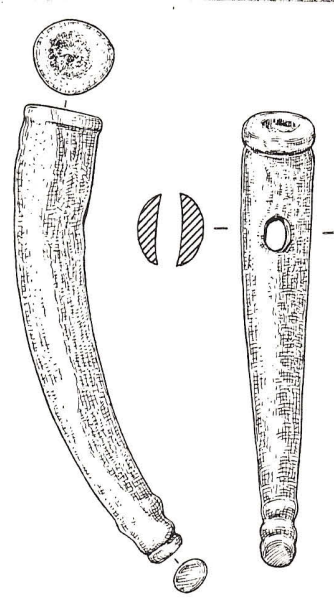
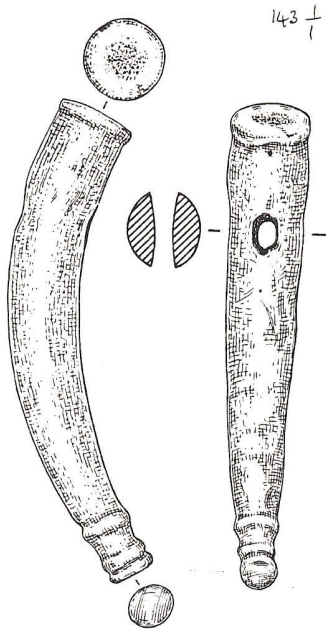


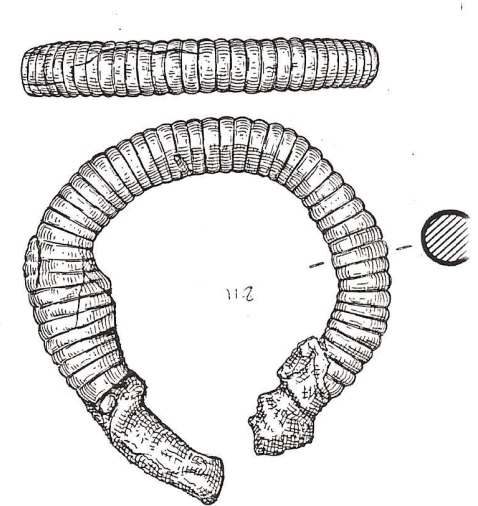
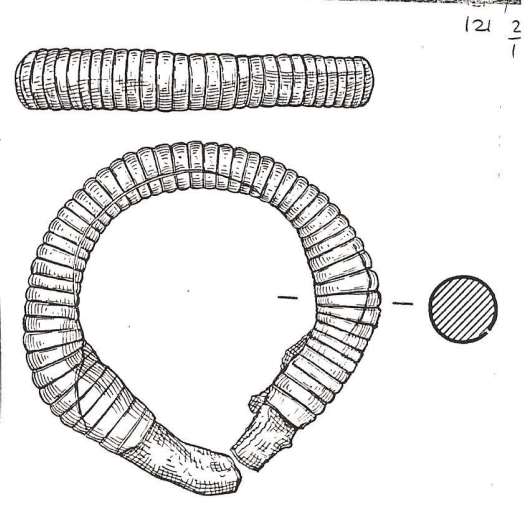
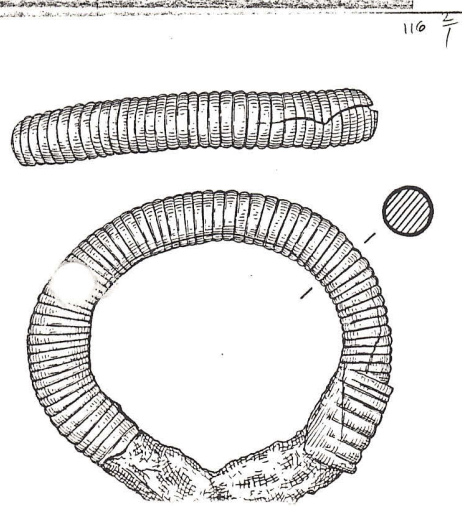
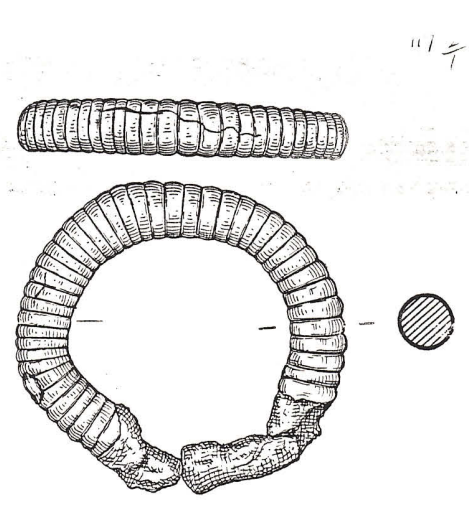
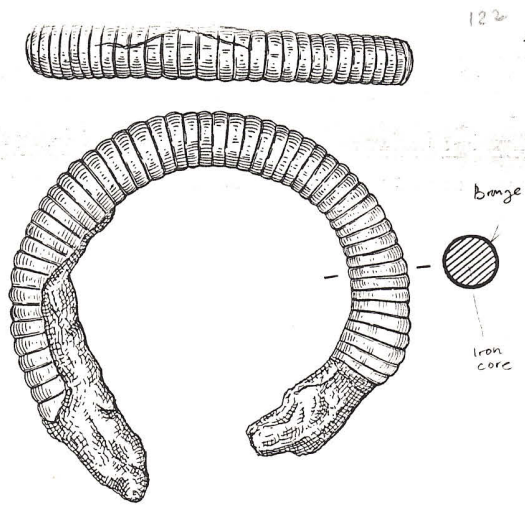
wood

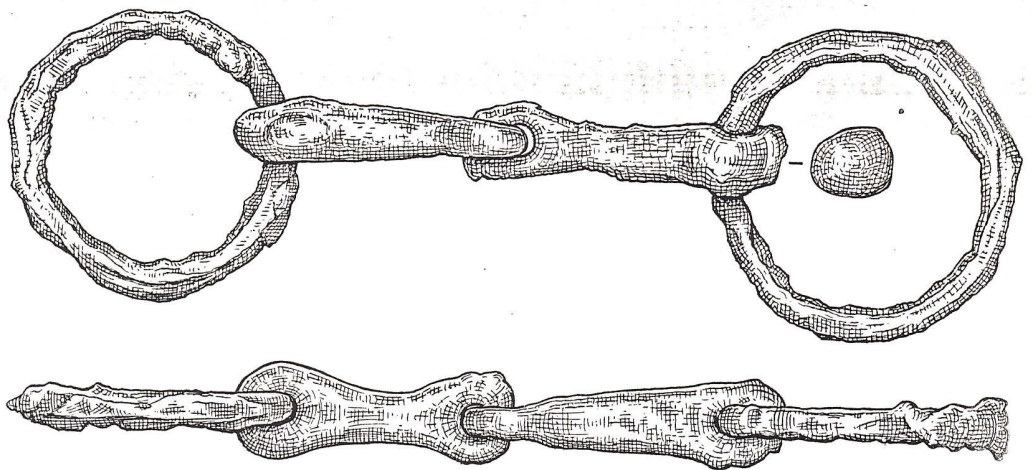
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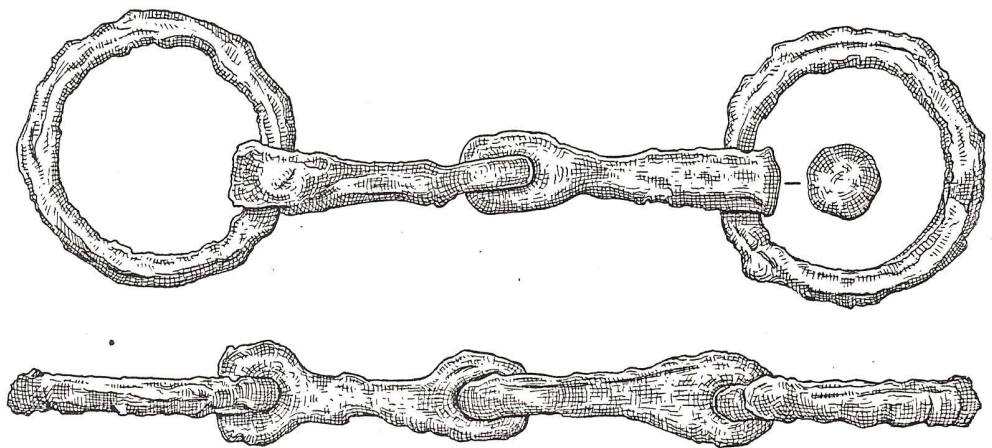






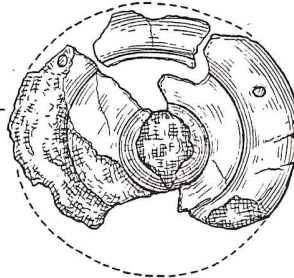
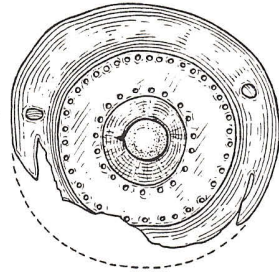


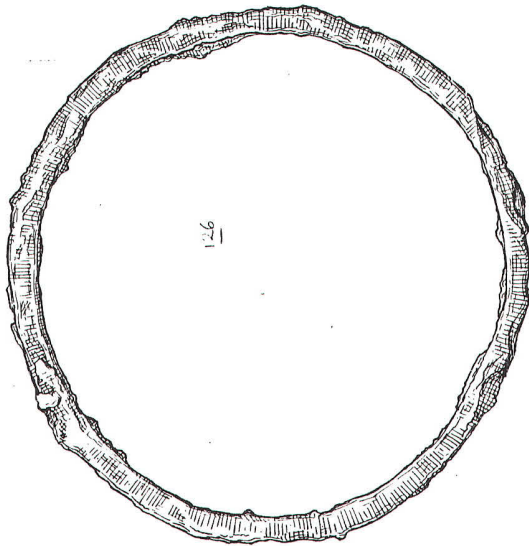
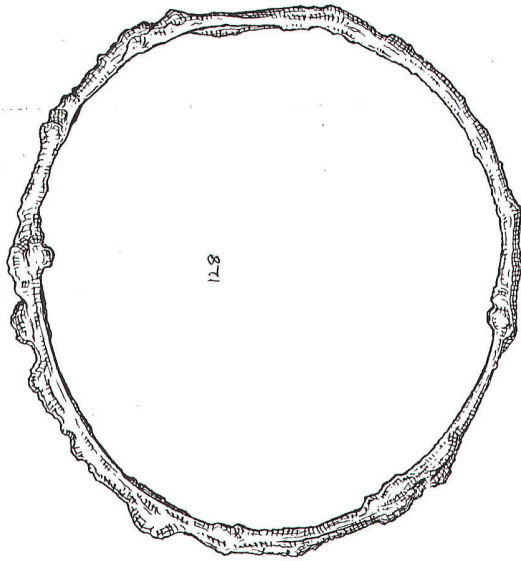
137 Fc  
1  
1



Fc 115  
1  
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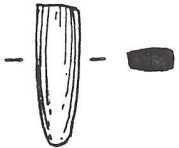




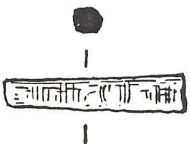
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313 Top

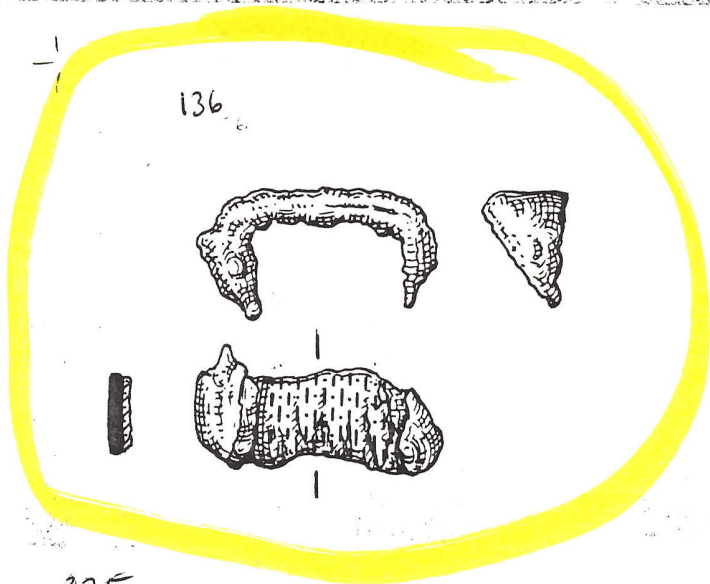


319c Top

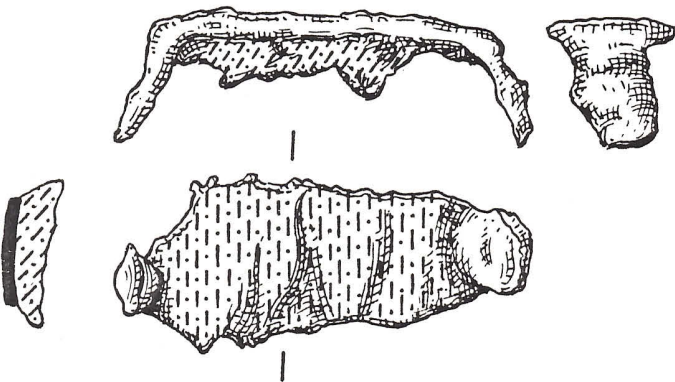


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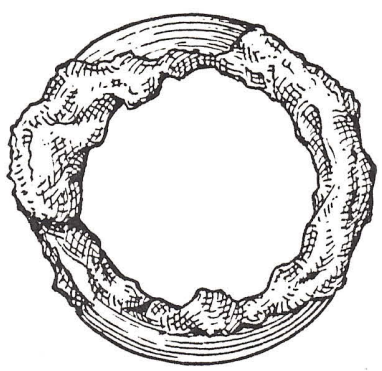
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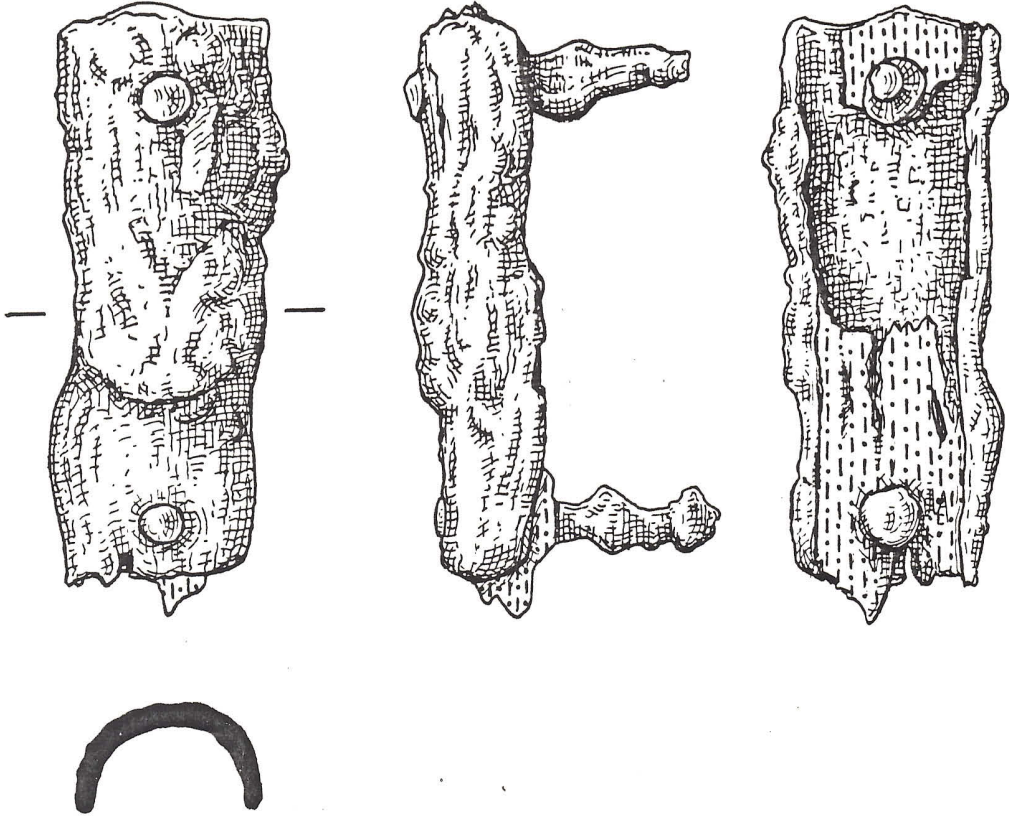
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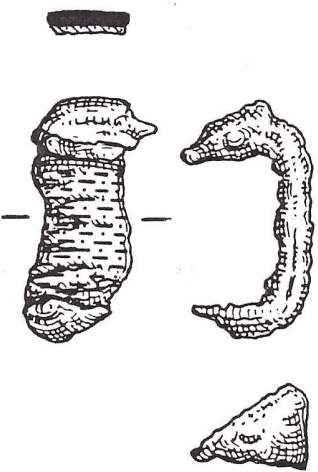


131.



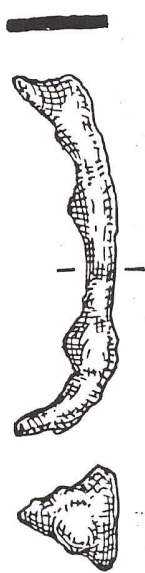
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