Fil. lic. Greve Sten Kalling fran tillgivne fre

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A BRONZE AGE BARROW AT BULLTOFTA, MALMÖ



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A recent enlargement of the airfield at Bulltofta, near Malmö, has necessitated the removal of a large Bronze Age barrow¹, which lay close to the airfield. The scientific examination of the barrow was undertaken by the Historical Museum of Lund University between March and May, 1949.

The barrow stood on a gravel ridge south of the airfield. (Fig. 1). This ridge, which goes steeply down to the airfield, rises to a height of approx. 16 m above sea level, whereas the airfield and the ground to the north of it lie at a level of only about 2 m above sea level. The barrow therefore stood in a typical, dominating position in the countryside. Its dimensions were: height, c. 3.10 m; diameter, c. 25 m². The height was originally greater. The profile of the barrow at the beginning of the excavation differed somewhat from the normal in that the top was flattened, the flat, almost

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¹ The barrow is called either »Kung Karls backe» (King Charles' hill) or »Kung Karls hög» (King Charles' mound), names which are certainly of late origin.

² The barrow is one of the largest Bronze Age barrows excavated in Skåne. The three barrows at Valhall, Barkåkra parish, excavated in 1948, measured 21, 18 and 20 m respectively in diameter and 1.85, 1.25 and 2.59 m in height (G. Rausing, Three Bronze Age mounds at Barkåkra, Meddelanden från Lunds univ. hist. museum 1949, p. 36 f.). The larger of the two barrows at Kvarnby, Husie parish, excavated in 1924, was 22 m in diameter and c. 3 m high (F. Hansen, Skånska bronsåldershögar, 1938, p. 34), while the largest of the barrows at Abekås, Skivarp parish, excavated in 1923, was c. 20 m in diameter and 3.5 m high (F. Hansen, op. cit. p. 80). All these large barrows are thus slightly smaller than the Bulltofta one. On the other hand, it is exceeded by "Stora Oshögen" in Skivarp parish, excavated in 1924, which was 29 m in diameter and 3.5 m high (F. Hansen, op. cit. p. 91).

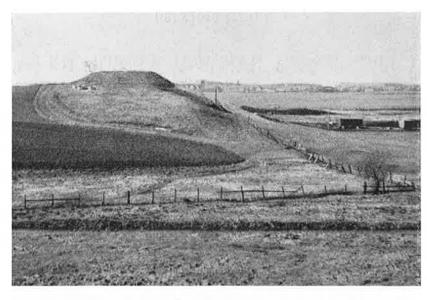


Fig. 1. The barrow seen from the east at a distance of 500 m.

circular, surface being about 10 m in diameter. This flattening was shown by the excavation to have taken place as follows: on some occasion digging had taken place in the mound, and a shallow funnel-shaped pit was dug in the top of the mound down to a level about 1.40 m above its bottom (i.e. the original ground level)¹. The earth from the pit was thrown onto the western, northern and eastern slopes of the barrow, which were thus covered with a recent earth mantle up 80 cm thick. The base of the barrow, however, was only slightly enlarged, since the majority of the earth thrown up lay on the upper half of the sides of the barrow. In the plan, Fig. 3, the original circumference of the barrow is shown, as clearly distinguished in the profiles by means of the black layer representing the vegetation from the original

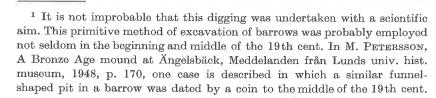




Fig. 2. The grass sods visible in profile wall in the northern part of the barrow.

surface of the barrow. The pit on the top of the barrow lay open for a considerable time, some decades at least.¹ The next change in the external shape of the barrow took place when the crater was filled in by flattening off the surrounding banks. The barrow finally suffered serious damage during the years 1939—1945. Military constructions were then built on the top and southern side of the barrow. The extent of the parts dug up in this connection is shown by the shaded rectangular areas on the plan, Fig. 3. The trenches reached a depth of 1.30 m at the most. It is highly probable

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¹ In the pit was found the stump of a largish tree. The tree in question was felled, according to a report, in 1928. This gives a date for the digging in the top of the barrow as the last decade of the 19th cent. at the latest.

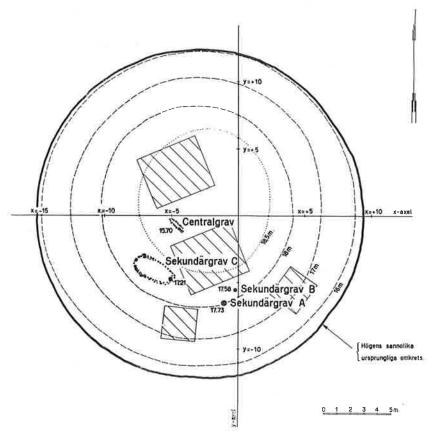


Fig. 3. Plan of the barrow.

that some secondary burials in the surface of the barrow were destroyed as a result of this digging.

The barrow was completely composed of earth. With the exception of the inconsiderable stone constructions connected with the four burials, there were no traces of any stone construction, either in the form of a central cairn or of a foot-chain. It was impossible to find the slightest indication that a foot-chain had originally existed but been subsequently removed. It is absolutely certain that the barrow never had a foot-chain.

The barrow was built up mainly of hard earth with a high clay content, in which it was difficult to distinguish any layer

sequence. From several parts of the profile walls, however, it was possible to show that the mound was built of turf sods laid with the grass side facing downwards (Fig. 2). The mound could be divided into three divisions on a basis of the degree to which the turf sods could be distinguished. Lowest down at the centre of the mound was a section with fairly clearly distinguishable sods, which was covered by a section with a higher clay content in which no sods could be distinguished. On top, finally, was a portion with clearly distinguishable sods. By far the most easily distinguishable sods occurred in the uppermost portion of the northern part of the barrow, and the soil here consisted not of the same clayey earth as elsewhere, but of a looser sandy earth.

The whole barrow was built all at one time and there is no reason to suppose that it was not built entirely of grass sods. The variations shown in the profiles must be due to the fact that sods were taken from different sorts of ground at different stages in the construction of the mound. It can be taken as certain that the grass sods used in the construction of a Bronze Age barrow were taken from the ground in the immediate vicinity. The earth with a high clay content of which the Bulltofta barrow was built, is the same as that which occurs on the ridge on which the barrow was erected. The exception is the uppermost third of the northern portion of the mound; and the sandy soil of which this part of the barrow is composed was fetched from marshy meadowland. But such land also occurs in the vicinity of the barrow. The low-lying plain below the gravel ridge, on the crest of which the barrow stands, is in fact marshy meadowland. It is natural that the grass sods taken from here should lie uppermost on the northern portion of the barrow, since this northern part of the barrow looks onto the slope and meadowland below. The fact that these sods lie uppermost also has its natural explanation: not until the grass sods accessible on the top of the gravel ridge near the mound had been used up, did the builders have recourse to fetching sods from the meadowland and carrying them up the steep slope of the ridge.

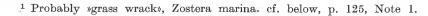
During the excavation, the central burial of the barrow and three secondary burials were found.

The central burial did not lie exactly in the middle of the barrow, but about 2 m to the west of it. It rested directly on the original

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Fig. 4. Central (primary) burial. The shaded portions indicate occurrence of seaweed.

ground surface. The burial structure consisted of a hollowed wooden log, orientated NW-SE, surrounded by stones. The greatest width of the log was only 20 cm, and its length, which could not be exactly estimated because of the very decayed state of the material, about 1.5 m. The stones acted as a support for the log along both its long sides; and no stones were found at the ends (cf. Fig. 4). As far as can be seen, the cist had no wooden lid, but was protected from the earth by being covered with some other organic substance. One of the constituents of this protective covering was seaweed. Traces of seaweed occurred also outside the eist (the shaded parts on the plan, Fig. 4). Burnt bone was found in the cist, scattered inside the log along the whole of its length. Cranial fragments were found in both the NW and SE parts



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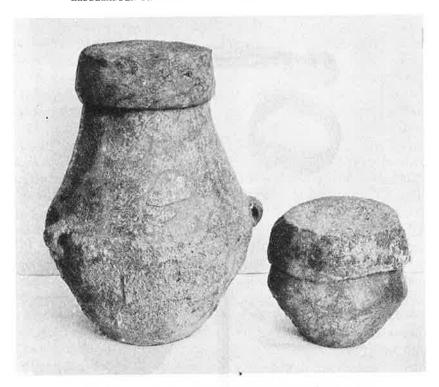


Fig. 5. Urns in Secondary burials A and B.

of the cist. Above the burnt bone in the middle of the cist lay the grave goods: a fibula and two finger rings (Fig. 6). The fibula has a cruciform head, and the bow and the last turn of the spirals are obliquely grooved. One of the finger rings is formed from a thin, flat bronze wire wound to form a spiral with five whorls. The other ring is deeply corroded and very fragmentary, but was probably of a similar appearance.

According to Gejvall's determination of the burnt bone, the remains in the central burial are of a 20- to 30-year old woman.¹ Secondary burial A. The two urn cremations, Secondary burials A and B, were both placed in the southern side of the barrow and

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¹ Cf. below, p. 133. GeJVALL has made the determinations with no knowledge of the finds or other circumstances about the graves from which he investigated the bone material.

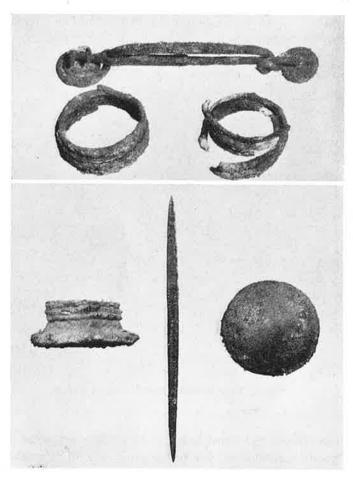


Fig. 6. Bronze objects from central burial, Secondary burials C and B. 1:1.

barely one metre distant from each other (cf. plan, Fig. 3). The covering stone above Secondary burial A lay only c. 15 cm below the turf surface, while the stone packing above the urn in Secondary burial B lay c. 30 cm below the turf surface.

The urn in Secondary burial A (Fig. 5) is 41 cm tall and of double-conic shape. The rim diameter is 18 cm and the greatest diameter of the urn 33 cm. The neck is smooth and the belly rough. Two ribbon-shaped lugs sit at the transition from the neck to the belly, not exactly diametrically opposite each other. The ware is

rather fine and well fired. The lid is slipshod and simply made, its fabric coarse. The diameter of the lid is 20 cm, and its sides are 8 cm high.

The burial construction consisted of the double-conic urn, the upper portion of which was surrounded by a stone packing of stones roughly the size of a fist, and the whole covered by a flat stone slab measuring c. $60 \times 40 \times 10$ cm. In the urn was a collection of burnt bone, which filled only the bottom of it. Above the burnt bone were the grave goods, — five bronze objects. When the urn was investigated, it was found that the greater part of the lid had fallen into the slightly crushed urn where it had come to rest upside down. Between the lid and the burnt bone there was no earth, showing that the lid had fallen in before the urn began to be filled with earth. On the other hand, between the lid and the bone was a considerable amount of well preserved grass-wrack (Zostera marina). It is not possible now to determine whether the seaweed originally covered the urn and lid or was placed in the urn above the bone and grave goods. On the other hand, it can be said for certain that the bronze articles had not been wound up in seaweed, since no seaweed was found under them. It is most likely that the seaweed was originally placed above the lid and urn, and so had preserved the urn from direct contact with the overlying stone packing. Such an arrangement can be said to be connected with the custom in the Early Bronze Age of covering the oak cists with seaweed.²

The bronze objects were placed in the urn in the same way as they are set out in Fig. 7.3 They consist of an ornamented double

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¹ According to the determination of fil. kand. Samuel Hansen. As mentioned above (p. 122), traces of seaweed were also found in the central burial. The fragments there were too small for a definite determination to be made, but, according to Hansen, it is probable that it is a case there also of Zostera marina.

² Three examples are known from Denmark of burial urns being protected with seaweed and a stone packing. (H. C. Ввоноім, Danmarks Bronzealder, 3, graves 1055—57.)

³ The double button, however, has been placed in the illustration with the larger face upwards, although it lay in the urn with this face downwards. The objects lay closer together in the urn than in the illustration. They lay with their long sides orientated N—S, in such a way that the arrowhead, for example, had its tip to the north and its tang to the south.

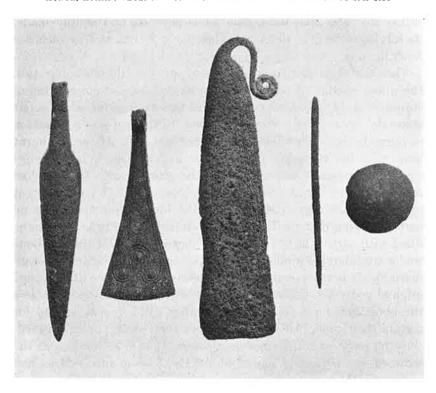


Fig. 7. Bronze objects from Secondary burial A. 4:5.

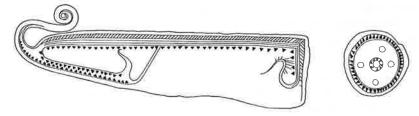


Fig. 8. Decoration on razor and double button from Secondary burial A. 4:5.

button with a domed upper face, 2.3 cm in diameter and 1.3 cm high, an awl, an ornamented razor with the shaft rolled into a spiral, ornamented tweezers and an arrowhead. The tweezers are decorated with three punched bosses and a band-ribbon. The ornament on the razor and double button can be seen in the drawing in Fig. 8. The double button has two concentric circles of punched

triangles enclosed by lines, and four small circles. The razor has a pattern of parallel lines along its upper edge, which are connected at the handle end with the representation of a ship. At the short end of the razor the linear pattern passes into an animal head with protracted nose and mane. The representation of the ship, and the upper edge and short side of the razor are all decorated with close-set punched triangles.

During the examination of the burnt bone from the urn a burnt heart-shaped arrowhead of flint was found. The arrowhead lay some distance down among the bone and not in contact with the carefully arranged bronze objects. During Gejvall's examination of the bone a further fragment of a similar burnt arrowhead of flint came to light together with a burnt worked object of bone (Fig. 9). This object is made from the narrow part of a shoulder blade of a ruminant (the part nearest the articulating surface)1. It is fragmentary, but the important parts of its original form are preserved. The shoulder-blade, from which the object was made, has been severed by a cut parallel with the articulating surface, so that an object resulted with the shape roughly of a truncated cone. The sides have also been worked to some extent, while the articulating surface has been retained in its original slightly cupular shape. The diameter of the larger surface (the articulating surface) is 3.4 cm and that of the smaller surface 1.8 cm. A number of holes have been bored in the object, all from the side (cf. Fig. 9 where two of the holes are visible). The depth of the holes is from 8 to 10 mm and their diameter c. 2 mm. When the part of the object which is now lacking (about a third of the whole) fell away, at least three holes were affected, of which traces still remain at the fracture. Two holes (those visible in Fig. 9) are quite undamaged. As can be seen from the drawing in Fig. 10, none of the holes was bored in exactly at right-angles from the side, but all are more or less oblique. The two visible in Fig. 9 are bored so that one lies obliquely over the other. Two others occurring on the opposite side of the object are placed in the same manner.

Secondary burial B lay barely one metre from Secondary burial A, and was disposed in mainly the same manner. The urn (Fig. 5) is 17 cm tall and double-conic in shape. The diameter at the rim

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¹ cf. below, p. 134.

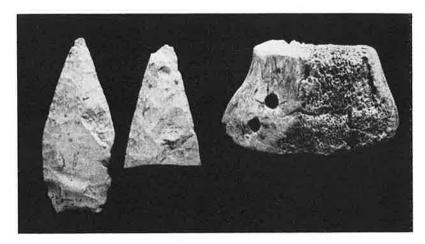


Fig. 9. Burnt objects from Secondary burial A. Arrowheads of flint and amulet of bone. 5:4.



Fig. 10. Schematic drawing of bone amulet from Secondary burial A showing the position of the bored holes. 1:1.

is 18 cm and the greatest diameter 22 cm. The neck is smooth and the belly rough. The fabric is rather fine and well fired. The lid is slipshod and simply made of coarse fabric. The diameter of the lid is 23 cm and its edges are c. 8 cm high. Round the upper portion of the urn a stone packing had been laid of stones about the size of a fist. The urn was rather more than half filled with burnt bone. Above the bone lay the grave goods, a double button and an awl (Fig. 6). The double button is of the same type as that in Secondary burial A, but is undecorated. It is 2.4 cm in diameter and 1.2 cm high.

In his examination of the burnt bone, Gejvall found two fragments of animal bone, viz. fragments of sheep bone.1

According to Gejvall's determination, the remains in Secondary burial A are those of an adult, middle-aged man, while those in Secondary burial B are of an adult, middle-aged woman.¹

Secondary burial C was a large cist, lying in the SW part of the barrow (cf. plan, Fig. 3). The cist, presumably an oak log, lay on a stone flooring about 80 cm below the surface of the barrow. The stone framework had a length of not less than 2.8 m and a maximum width of 1.5 m. It was broadest at the west and tapered off a little to the east. The bottom consisted of laid stones about the size of a fist. The frame consisted of rather larger stones and rose to between 10 and 15 cm above the bottom. On this stone bed lay a collection of burnt bone, concentrated mainly in the middle portion of the grave. Scattered bone fragments, however, were found over the whole of the bottom of the cist. In its western part, a chape of bronze for a sword- or dagger-sheath was found. The chape lay on a level with the highest tops of the stones in the frame, and the absence of the sword or dagger, together with the fact that the chape clearly lay in a secondary position gives cause for suspecting that the grave had been plundered. The chape (Fig. 6) is of rhombic shape, and the hole into which the sheath fitted is rhombic or almost square. The chape is decorated with three ribs.

According to Gejvall's determination, the remains in Secondary burial C are probably those of a middle-aged man.²

The burial constructions and several of the material finds are without doubt worth thorough treatment, but it seems as though this must be put off until they can be considered against a wider background. Here only some of the more striking phenomena will be briefly mentioned.

The disproportion between the remarkable dimensions of the barrow and the insignificant form and scanty equipment of the central burial is remarkable. As mentioned above, the whole

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¹ The double button lay with the larger face turned upwards. The awl lay with its point towards the double button.

¹ cf. below, p. 134.

² cf. below, p. 134.

mound was built at one time and not added to later. The whole barrow was thus erected in connection with the burial construction in the central grave. The fibula in this grave gives a fixed dating to Montelius Period III. Oak cist graves containing cremated remains are already known, as are also central burials (primary burials) of small dimensions. The central burial at »Rönhöj» in Hjordkjär parish, Denmark² can be cited as an example of the former, and the central burial at »Korshöj» in Hvidbjerg parish, Denmark of the latter.³ Both date from Period III. What is striking about the Bulltofta barrow's construction is not so much that a small central burial is covered by a very large mound, as that a barrow with a small central burial should contain a secondary burial with a large wooden cist. Secondary burial C, 2.8 m long and 1.5 m wide, far surpasses the central burial in size. The chape should probably date Secondary burial C to period III, i.e. the same period as the central burial. But the chief interest is inevitably attached to the stratigraphical circumstances. Secondary burial C is deposited later than the primary burial but is typologically earlier. It is immaterial whether one considers the primary burial as an early example of a cist of less than body size or Secondary burial C as a late example of a cist of greater than body size. The vital point is that these two burials illustrate clearly the still divergent forms of burial existing during the critical period of the Bronze Age when the cremation rite was being introduced.

The razor in Secondary burial A should date this burial to an early phase of period V, and this dating thus applies also to Secondary burial B, since it is impossible not to consider these two graves as very nearly contemporary. The burial construction is of the same type, with a stone packing round the upper part of a double-conical urn. Both urns are of the same fine, well fired fabric. The lids in both cases are clearly manufactured for the sole purpose of covering the pot when it was taken for use at the burial. The double buttons are both of the same type. Even the fact that the burials are placed so close to each other speaks in favour of contemporaneity.

Particular attention is also attracted by the burnt objects found in Secondary burials A and B, i.e. two arrowheads of flint and a bone object (Fig. 9) in the former, and two fragments of sheep bone in the latter. The arrowheads are of a type which is indubitably a simplified variant of the heart-shaped arrowheads of the Stone Cist Period. They are not flaked over the whole surface, but only along the edges. This type of arrowhead was probably manufactured and used during the Bronze Age.¹

The main problem is how to explain the occurrence of burnt objects in urn burials from the Bronze Age. Only two explanations seem possible. Either it is a case of extraneous objects occurring accidentally at the place where the dead was cremated, and subsequently placed inadvertently together with the burnt bones in the urn, or it is a question of objects worn by the dead man, which were burnt together with him. Of these two possible explanations, it is clear that the latter must receive the greater credence. Negligence such as would allow extraneous objects to be placed in the urn seems to be quite foreign to the burial rite of the Late Bronze Age, which, on the contrary, is marked by the greatest carefulness. The unbelievable care with which every trace of charcoal is removed from among the burnt bone gives the clearest possible proof of the minute attention with which they conducted the rite.

The rule that grave goods in Bronze Age cremation burials are always unburnt is generally accepted as without exception. And quite correctly, too: the real grave goods always are unburnt. But it does not therefore follow that no burnt objects can ever be found in a Bronze Age cremation burial. There is no reason for assuming that the dead was burnt unclothed on the pyre. But if the dead were clothed, there is a possibility that among his clothes there might be some object which could not be burnt, but which came to be laid with the burnt bones in the grave. In actual fact, several examples occur of such burnt objects, that prove that the dead was clothed at the time of cremation. This is most clearly shown by the special Jutlandish group from period IV, in which bone objects are found in the cremation burials. Among these bone objects, buttons of various types form an important group, and

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¹ cf. above, p. 121.

 $^{^2}$ H. C. Broholm, Danmarks Bronzealder, 2, p. 139 and op. cit. 1, grave 2484.

³ Ввонодм, ор. cit. 2, р. 141 and op. cit. 1, grave 1757.

¹ cf. Märta Magnusson, En bronsåldersboplats i Landskrona, Fornvännen 1950, p. 32.

these buttons are often burnt.¹ Such finds show conclusively that the dead was cremated clothed. But objects other than those belonging to clothing have been found burnt in cremations. In the above-mentioned oak cist grave at »Rönhöj», Hjordkjär parish, Denmark, for example, a small bronze knife was found together with a bronze pin, both burnt.² This must signify that these objects had been attached in some way to the dead man's dress and thus been burnt together with him. The burnt objects in the Bulltofta burials should be explained in the same way: as personal objects worn by the dead man and burnt together with him.

If the interpretation given here is right, it is surprising that burnt objects are not found more often in cremation burials from the Bronze Age. One explanation of this phenomenon seems to be obvious: the collections of burnt bone in cremation burials have not attracted sufficiently great interest, since it has been taken for granted too much that the grave goods in a Bronze Age grave of this type lie above the bones and are unburnt. In particular, much too little of the bone material has been investigated by an expert anthropologist.

The author knows of no parallel to the remarkable bone object from Secondary burial A. The possibility that this is a question of an object of use cannot be ruled out, but it is most likely that the object is an amulet. Amulets are known from many Bronze Age finds, e.g. the well-known find at Faardal in Denmark, and the primary burial in Maglehöi» in Oppesundby, Denmark. The collection of unworked animal bone of various kinds, which occurred in the latter, can perhaps give an explanation of the apparently unwarrentable occurrence of sheep bone in the Secondary burial B of the Bulltofta barrow.

Determination of the Cremated Bones from Bulltofta

Information in detail about the method of investigation used by the author will be found in K. E. Sahlström och N.-G. Gejvall, Gravfältet på Kyrkbacken i Horns socken, Västergötland, II., Antropologisk del, Kungl. Vitterhets-, Historie- och Antikvitets Akademiens Handl., del 60:2, 1948.

Central grave.

Nr 1. 25 gr., 0.1 lit.; bones of a slightly reddish brown colour; the major part comes from the pelvis. *Det.*: Adult.

Nr 2. 500 gr., 0.8 lit. Material physically as in the preceding lot, containing also a great number of small (0.5—1 cm) pieces, and as a whole more fragile than in secondary grave A.

Around 30 medium-sized fragments of the calvarium; no synostosis observed, and sutures not fully branched.

Part of a caput humeri and one supraorbital fragment, both of female type. Three roots of teeth, all with wide pulp canals and persisting porus.

Det.: 20-30 years old woman.

Nr 3. 400 gr., 0.7 lit., partly larger (4-5 cm.) and slightly rosytinted, partly completely pulverized fragments of a greyish colour, thin and fragile; incompletely consumed.

About 20 fragments of the calvarium; same type as in nr. 3. Three molars, including one M3 with a distinctive porus at the apex. One mandibular condyle and one odontoid processus of a second cervical vertebra.

Det.: Same individual as in nr. 2.

Nr 4. 300 gr., 0.4 lit.; bones in all respects much like those of lot nr. 2. About ten small fragments of the calvarium; sutural type as in the others of the central grave. One pair of petromastoid bones from one individual, and one supraorbital portion of female type. One molar root showing wide pulp canal and porus. Det.: Same individual as in the lots 1, 2 and 3.

Nr 5. 25 gr., 0.1 lit.; bones of the same type as in the other lots of the central grave. Some few fragments of the calvarium.

Det.: Same individual as in lots nr 1, 2, 3 and 4.

N. B. The bone material in the central grave does not suggest more than one individual.

¹ cf. Ввоновм, op. cit. 4, p. 62 and Plate 12.

² Вконовм, ор. cit. 1, grave 2484.

³ H. KJÆR, To Votivfund fra yngre Bronzealder, Aarbøger 1927, p. 261.

⁴ V. Boye, Maglehøi-fundet, Aarbøger 1889, p. 321.

Secondary grave A.

Nr 6. 1800 grams, 2.3 litres, white or light greyish fragments, in spongious parts yellowish brown in colour; max. 9 (med. 4—5 cm. long) hard and with a metallic sound. The material is well consumed, but containing large and easily recognizable fragments; in this lot the bones were probably not crushed before burial.

Some 60 larger fragments of the calvarium were identified, the synostosis of which was almost completed in tabula interna, but just started in the externa. Consequently the fire caused heavy torsions in the diploë, and the cracks are concentrated around this part of the bone.

One pair of the condyles of the lower jaw and of the petromastoid bone, three fragments of caput humeri of male type and one piece of a trigonum supraorbitale also of male type. No teeth.

Determination: Adult, middle-aged man. (In this lot also a worked piece of bone, the proximal portion of a shoulder blade of a ruminant was identified).

Secondary grave B.

Nr 7. 1100 gr., 1.5 lit. of greyish brown, sometimes over 1 decim. long fragments, but partly shattered into tiny pieces. Material unevenly consumed. About 60 calvarium fragments in size 2—3 cm., many of which are broken along the diploë. Synostosis little extended within tabula interna. One part of a trigonum supraorbitale of female type, one pair of petromastoids and one odontoid processus of a second cervical vertebra. One fragment of a caput humeri of female type.

Det.: Adult; woman under middle-age. (In this lot part of a distal epiphysis of a humerus and a splint from one end of a radius of a sheep could be identified.)

Secondary grave C.

Nr 8. 800 gr., 0.9 lit., pure grey and coarse fragments much of the same size (max. 5, med. 2—3 cm. long). Only some ten small portions of the calvarium. State of synostosis difficult to determine, but obliteration seems to have started in tabula interna.

Two supraorbital portions of predominantly female type contrast with the mainly very thick-walled material, containing for instance one heavy and well preserved distal condyle of a radius. The two petromastoid bones of one individual.

Contrary to the bone content of the other graves this one does not seem to be complete.

Det.: Adult. The estimation of the sex is uncertain; middle-aged ?man. Making proper allowance for the supraorbital fragment of more or less female type, one is inclined to draw the conclusion that the bone material in this grave was mixed with that of another grave, but the secondary sex characters are in some cases weak and difficult to discern in the supraorbital fragments for which reason too much importance should not be attached to them as means of sex determination.

List of measurements on fragments of bones from cremation graves at Bulltofta.

Бтате	Approx. weight of the bone content in gr.	Approx. volume of the bone content in litres.	Medial wall diameter of the calvarium in mm.	Maximum wall diameter of the calvarium in mm.	wall diameter of the middle part of the	Maximum wall diameter of the middle part of the shaft of the humerus in mm.	wall diameter of the shaft
Cg nr 2.	1250	2.1	2.7	4.1	5.1	1.9	
nr 3.			(200	4.2	-	2.1	
nr 4.			2.6	4.0	5.0	=	_
Sg A nr 6.	1800	2.3	5.2	7.5	6.2	3.3	3.1
Sg B nr 7.	1100	1.5	3.1	5.1	5.3	1.9	1.5
Sg C nr 8.	850	0.9	-	-	6.8	3.0	2.2

The determination has been carried out by the author without his knowledge of any of the finds in the graves.

N.-G. GEJVALL