BEAKER BURIALS IN SOUTH DERBYSHIRE

By D. REANEY

THIS report deals with the excavation of archaeological sites first revealed by aerial photographs taken near the villages of Aston-on-Trent (SK 422291) and Weston-on-Trent (SK 411285) in south Derbyshire. The villages are situated on flat terrain forming part of the flood plain of the river Trent (fig. 1). The excavations were carried out by C. A. Hobday and the writer during the period 1963-6. The sites were reported both by Mr. J. Pickering and Dr. J. K. St Joseph, who have made available a large number of aerial photographs of both complexes.

Fig. 1. Location map.
The stratification in the area is simple, a layer of topsoil of 10-12 in. overlying a subsoil which consists of a mixture of sands, gravels and a little humus. The thickness of this layer is 10-18 in. and beneath this lie several feet of river gravels. These gravels vary a little in composition and the degree of compaction and, in places, there are thin layers and lenses of pure sand. Intermixed with these layers are traces of decayed vegetation which give a somewhat mottled appearance, particularly in the thin layers of sand, together with varying amounts of iron pan. The difference in compaction is well illustrated by comparison of the gravels at Aston-on-Trent with those at Weston-on-Trent. In the latter area, any pit cut into the gravels will retain its shape comparatively easily, whereas the gravels at Aston-on-Trent seem to have a greater sand content and are consequently much less firm. These gravels are somewhat acid, and measurements made both at Aston-on-Trent and Weston-on-Trent show that the pH value varies between 5.7 and 5.9. This seems to be one of the principal factors which account for the total absence of any traces of skeletal remains, human or animal, at any of the sites investigated.

The aerial photographs of the Aston complex show that the main barrow (Aston 1) has two concentric ring ditches, but no other features are visible within these (plate Ia, fig. 2). A little to the north and slightly to the east is a smaller single ring ditch (Aston 2). Both are within two parallel linear
ditches which can be traced for some hundreds of yards on other photographs. This is a cursus, 270 ft. in width and of a length not yet established. Also within the cursus are a much larger single ring ditch (Aston 3) 200 yds. to the north and near to Aston 2 a D-shaped enclosure intersected by a small linear ditch.

A second complex of a rather different nature lies about one mile to the S.W. but at approximately the same distance from the river, near the village of Weston-on-Trent (plate Ib). The main features will be seen to consist of a single ring ditch (Weston 1), a large rectangular enclosure with a single entrance and a pit alignment running from one corner of the enclosure in a N.E. direction. The enclosure has been shown to be Iron Age in date, but the ring ditch is probably contemporary with and may even form part of the Aston complex.

**ASTON 1 : BELL AND NECKED BEAKER BARROW**

The excavation was planned to be in two parts, firstly an examination of one quadrant and the central area, and secondly a more detailed examination of a part of the pre-barrow surface contained within the quadrant. The barrow itself is visible as a low mound, rising some 20-24 in. above the present surface. The field has been under cultivation for some years, but local inhabitants have reported that the mound was at least 12 in. higher about 40 years ago when the field was pasture. Subsequent ploughing has reduced the height of the mound and caused it to spread to the rather elongated shape now visible.

*The pre-barrow neolithic*

Underlying the barrow were a number of small gullies, two pits and a hearth. The gullies appear to have been dug into the ancient surface and in section they vary from roughly semicircular to substantially U-shaped. The depth is about 9 in. and the width between 9 and 12 in. The pattern of these gullies is interesting; there is a circular form cut by the hearth, and a few feet to the north are the remains of what appears to be an earlier circle. In several places the gullies intersect or run into one or other of the pits. These gullies were clearly visible, not only in section but also in plan, as the fill was a dark brown contrasting sharply with the yellows and light browns of the surrounding gravels. Examination of the fill showed that, with one exception, it was quite sterile, although one or two sherds of Neolithic pottery were found lying above the gullies but at the same level as the ancient surface. The exception referred to is the hearth, which has been cut into the circular gully previously mentioned. The fill of this gully for a few inches from the edge of the hearth contained carbonized corn and charcoal fragments, but otherwise was sterile. Similar parts of gullies were recorded in the long trench running north/south and defining one side of the quadrant under investigation. The diameter of these circular gullies was 5-6 ft.; no trace of any stake or post holes was found.
The two pits are:
(a) an oval shape, 3 ft. by 1 ft. 3 in., and 3 ft. 1 in. deep, cut from
the present surface. It was completely sterile and has no connec-
tion with the barrow structure, and
(b) slightly oval, about 4 ft. by 3 ft., and 11 in. deep. A gully enters
or is cut by the pit on the east side. From the appearance of the
pit it post-dates the gully. The fill contained two worked flints,
two small sherds of neolithic pottery and some crumbs of
charcoal.

The hearth is 4 ft. by 3 ft. and about 1 ft. deep. The bottom of the
hearth showed clear evidence of a fire, both in the baking of the earth
and in the colour changes associated with it. Around the upper part of
the hearth, mixed with a quantity of charcoal fragments, were found
many carbonized grains of corn (provisionally identified as emmer).
Towards the top of the hearth, but still sealed by a layer of gravel, were
fragments of a neolithic bowl of some 14 in. diameter (fig. 6). This vessel
has a broad curving rim and marked carination (see appendix 1).

The silting of the pits was substantially horizontal, suggesting that the
occupation may have been terminated by flooding and may represent
no more than a summer camp. This latter view is supported in part by
the fact that only one hearth was found, but later work may cause this
view to be modified.

A number of worked flints, distributed over the pre-barrow surface
and throughout the primary barrow, consisted largely of blades together
with one leaf-shaped arrowhead. A fine scraper was also found, but as
this was close to the present surface it must be considered a casual find.
There were also some waste flakes and cores scattered throughout the
same area.

The bell beaker barrow

The primary barrow is a low circular mound rising about 14 in. above
the present ground level and having a diameter of 102 ft. When examined
in section the mound was seen to consist of a central area or core of earth
with a capping of turf. In some places only one layer of turf could be
distinguished, but in others up to five layers were recorded. Where there
were several layers the turves appeared to have been placed almost on end
in the form of oblique stacking. The earth core was found to contain a
good deal of occupation material, charcoal fragments, pottery fragments
(all neolithic), worked flints and waste flakes, as well as a scatter of hazel-
nut fragments.

The barrow was sited on the top of neolithic occupation, and the mound
was made by heaping up the available occupation surface and occupation
debris, a practice already recorded on other beaker sites. At the time of

1 W. Greenwell, British barrows, 1877; J. R. Mortimer, Forty years' researches, . . ., 1905, lxx.
construction of the primary barrow there were at least two pits, including a hearth, arising from the neolithic occupation of the area, although these must have been largely silted. Nevertheless the pits may have been filled in and a part of the area of the barrow was sealed by a gravel layer some 4 in. thick.

The earth mound does not reach to the edge of the surrounding ring ditch but stops about 10 ft. short. It seems likely that some of the earth from this part was used to make up the central mound, and that the spoil from the ditch was used for the final build-up. The profile of the ditch (fig. 3) is substantially U-shaped. The average depth was 4 ft. 6 in. measured from the present levels, with a diameter of 102 ft. The silt of the ditch yielded only two fragments of neolithic pottery, which are most likely to have been washed in or to have fallen in due to natural silting. The actual silting of the ditch was caused by natural processes, and no evidence was found of any substantial filling when the barrow was subsequently enlarged.

The primary burial
At the approximate centre of the barrow were found fragments of a bell beaker with comb-impressed decoration (fig. 4a). The beaker had
been crushed, and the remaining fragments were dispersed over an area about 3 ft. square. Unfortunately, owing to the acid nature of the river gravels and soils, many of the sherds were badly eroded, and it seems possible that much of the beaker may have been lost from this cause; alternatively the beaker may have been ritually broken.

![Diagram of beaker fragments](image)

**Fig. 4. Aston 1, a. bell beaker from the primary barrow. b. necked beaker from the enlarged barrow.**

The beaker was lying on top of or slightly below the ancient surface. There was no evidence of a burial pit of any kind. A few inches below the beaker was a flat perforated wrist guard of greenish polished stone, and 20 in. to the south at the same level was a small tanged and barbed flint arrowhead.

No trace of a body remained, and soil samples taken from the vicinity showed no increase in phosphate content compared with that in other parts of the same field. This evidence is not very significant as large quantities of fertiliser have been used on the field for many years.

**The enlarged barrow**

At some time after the completion (and from the appearance of the silting of the ditch the possible abandonment) of the primary barrow, it was enlarged. At present little, if any, evidence exists as to the time lapse except that the primary ditch had silted almost completely. The enlargement was achieved by digging a new ring ditch outside the old silted
one and using the spoil to increase the height of the mound by possibly another 2 ft., taking the volume of the ditch spoil as a basis for calculation. It is possible that the mound was again capped with turf, but no evidence to support this was found. A single layer at least would be required to retain the material which would consist largely of gravels.

The depth of the new, secondary ditch averaged 4 ft., and the profile was again substantially U-shaped. The diameter of the barrow had now increased to 115 ft., an addition of about 13 ft. The section (fig. 3) shows that a third ditch is present. This is an apparently linear ditch cutting across the inner and outer barrow ditches and post-dates them, although by how much it is not possible to say. It is not thought that this feature is in any way related to the barrows.

The new barrow resulting from the enlargement was not centred exactly upon the primary barrow. The centres differ by 3-4 ft. and the secondary ditch is 9 ft. from the primary ditch on the north section, whilst it is 6 ft. away on the east section. This was possibly a deliberate avoidance of the central area as the primary ditch must still have been clearly visible even if substantially silted.

The secondary burial

The evidence for a secondary burial lies in the enlargement of the original barrow and the presence of a necked beaker. As in the primary burial, and for the same reasons, no trace of a body was found. The necked beaker (fig. 4b), which was crushed but clearly lying on its side, was on or slightly under the surface of the primary barrow mound. The old barrow surface was rather disturbed in the vicinity of the beaker, but no regular pit or even shallow scoop was apparent. No other grave goods were found in association, and the upper surfaces of the beaker sherds were again badly eroded although the lower sherds, which were protected by the overlying fragments, were in better condition.

ASTON 2

About 50 yds. to the north-east of Aston 1 is a small single ring ditch visible only as a crop mark, there being no trace of a mound. A trench was cut across the diameter in an east/west direction, parallel to the present path along the edge of the field. The natural gravels were reached 2 ft. below the present surface, and the only remaining feature was the ditch. The diameter of this ditch was found to be 49 ft. and the profile clearly U-shaped, with an average depth of 4 ft. In the aerial photograph the crop mark is much more pronounced in a segment at the eastern end so the excavation was extended southwards from the main trench in order to examine this. The ditch in this area was found to be about 12 in. deeper than in the two parts sectioned by the main trench, although the width was not significantly greater.

The fill of the ditch was largely sterile; one sherd of neolithic pottery
was found at the bottom of the west section and two or three crumbs in the eastern section. There were also two waste flint flakes and a small blade from the same area. Throughout the fill of the lower part of the ditch were a number of charcoal flecks, but none was sufficiently large for further identification. The few artifacts recovered can easily be matched by material from Aston 1, and it seems reasonable to argue that Aston 2 is a contemporary ploughed-out barrow. From the smaller diameter it is possibly another bell beaker barrow.

**ASTON 3**

Lying some 200 yds. to the north of Aston 1 is a large single ring ditch, which has been designated Aston 3. No examination of the immediate area has been made, but from measurements on the aerial photographs the diameter is some 160 ft. No surface feature or mound is visible, and there is no memory of a mound that can be traced locally.

**THE CURSUS**

A section was cut across the eastern ditch close to Aston 2; the ditch was shown to be 5 ft. deep and had a nearly flat bottom some 3 ft. wide. The sides of the ditch were rather low angle giving a width of 11 ft. just below the present surface. The fill was a uniform light brown soil with few stones, apart from those associated with a single silt line. A few flecks of carbon were distributed throughout the fill. At the bottom of the ditch was a layer of larger stones (1-2 in. typically).

The silting was more pronounced on the outer (eastern) side of the ditch. No archaeological material was found in the ditch, which appears to extend at least as far as the banks of the river Trent at the northern end.

**WESTON 1**

The complex of crop marks near Weston-on-Trent (plate Ib) lies about three-quarters of a mile north-east of the village and about half a mile from the river Trent (SK 412285). The situation is almost identical with those of Aston 1 and 2, but no surface features exist as the field has been under cultivation for some time.

A trench, cut across a diameter of the ring ditch, disclosed the two ditch sections and a central pit. No trace of the original mound remained, and no evidence of the barrow structure was found. The ring ditch appeared to be slightly flattened on the north side in the aerial photographs, and to check this a further section was cut. This confirmed the flattening, which gave a diameter of approximately 60 ft. in this direction and 57 ft. in the other direction at right angles. The ditch was about 6 ft. deep measured from the present surface, with steep sides and a U-shaped profile. In all sections the primary silting from the inside indicates the former existence of a mound. In the central region, but slightly off to
one side of the centre, was a large pit cut deeply into the gravels (fig. 5). This pit had an oval shape with a maximum diameter of 9 ft. and a minimum of 6 ft. and was cut 3 ft. into the natural gravels. The pit was filled with loose gravel, whilst the undisturbed gravels were compacted and firm. Additionally, in the lower part of the pit a thin layer of iron pan had developed. In the upper part just below the subsoil was a further small circular pit, 18 in. in diameter and 10 in. deep. This pit contained a large quantity of what appears to be very old, largely decomposed wood fragments. There was also a thin layer of very dark soil about 1 in. from the bottom of this small pit. As this pit is only just under the subsoil, it is by no means certain that it is contemporary with the main pit.

The large central pit contained no trace of a burial and yielded only three flint flakes and one small quartz pebble about $\frac{3}{4}$ in. in diameter which had been subjected to intense heat. In the absence of any sign of previous excavation or disturbance, it can only be assumed that the burial was unaccompanied by any grave goods.
THE FINDS

Aston I. Pre-barrow neolithic

The material from this period comprises carbonized grains of corn, pottery sherds and a small assemblage of flints.

(a) Carbonized grain

Some 400 grains of carbonized corn were recovered from the immediate vicinity of the hearth, mainly from the upper part of the pit. These grains have been provisionally identified as emmer and a sample has been submitted for C14 dating. It is hoped that this date will provide some confirmation of the provisional dating of the neolithic occupation.

(b) Pottery sherds (fig. 6)

About 100 sherds were recovered, of which over 70 have been submitted to Dr. I. H. Longworth of the British Museum. The complete report is included in appendix I. Briefly, the sherds represent an assemblage of carinated bowls. A group of sherds are from a fine, undecorated carinated bowl of about 14 1/2 in. diameter (fig. 6). Of the other material only one sherd shows decoration and this Dr. Longworth assigns to a local form of Ebbsfleet ware.

(c) Flints

These consist of blades, waste flakes and some cores which were scattered over the pre-barrow surface and included within the primary barrow make-up.

Primary barrow

The primary burial was at the approximate centre of the barrow. No skeletal remains were found but the burial site was identified by the presence of the following:

(a) A polished stone wrist guard. This is of a greenish polished stone, rectangular in shape, with small biconical holes drilled near each corner. One corner has been broken across the holes. The wrist guard is flat, tapering in section from the centre to each edge.

(b) A barbed and tanged flint arrowhead, with the tip of one of the barbs missing.

(c) Sherds of a bell beaker (fig. 4a).

About forty sherds, mostly from the upper half of the vessel, were recovered. From these it has been possible to reconstruct the probable form of the beaker, the shape of the lower part being based on other vessels of similar form and size. The paste is smooth and the beaker well fired to a characteristic fine red colour. The sherds have a grey core and contain a small quantity of grits. The vessel has an S-shaped profile, with a height of 8 1/2 in. and a diameter at the rim of 7 in. The thickness of the vessel is fairly constant at 0.3 in., except at the rim.

The beaker is decorated with comb-impressed horizontal bands in two forms. Firstly, a pattern was produced by using a small toothed comb providing indentations of approximately 0.04 in. x 0.06 in. (1 mm. x 1.5 mm.), spaced fifteen to the inch, and secondly with a much larger comb with teeth producing an oval indentation of approximately 0.06 in. x 0.2 in. (1.5 mm. x 5 mm.), spaced 3-4 to the inch. The decoration consists of alternate bands or zones of the forms described, separated by undecorated bands of roughly the same width.

There is a further decoration in the form of a band of three rows of large comb impressions just below the rim, on the inside of the vessel, with a width of 0.25 in.
Enlarged barrow

At the approximate centre, which is displaced from the centre of the primary barrow by a few feet, were the remains of a crushed necked beaker (fig. 4b). The sixty sherds recovered were found to comprise practically the whole of the beaker. Only a small portion near the base and part of the base itself were missing. The sherds lying at the greatest depth were much eroded and the surface badly pitted. The vessel is light brown in colour and quite well fired. The surface is smooth and has the appearance of being burnished. In height the beaker is 9 in. with a width at the rim of 6 in. and an average thickness of 0.3 in. The maximum girth (6.25 in.) occurs at a little less than a third of the total height, and the rim is slightly everted. The beaker is decorated in horizontal zones or bands consisting of rows of comb impressions together with vertical strokes. The basic pattern is made up of horizontal rows of comb impressions alternating with lozenges defined by short oblique rows of impressions and zig-zag zones defined in a similar manner. The lozenges and the zig-zag bands contain a series of vertical lines which are not comb-impressed but have been made by single strokes of the appropriate tool.

Just above the narrowest part of the beaker is a band of alternate vertical and oblique strokes forming a closely set zig-zag pattern. There are also three undecorated zones, one at the narrowest part and one at the widest part of the vessel, together with one on the lower part of the beaker towards the base. The series of short oblique lines of impressions, which define the lozenges and zig-zag zones, are deeply impressed and at first sight they give the appearance of being single strokes.

Aston 2

The sections were nearly sterile, producing only one sherd of neolithic pottery, two waste flint flakes and one small flint blade.

The cursus

The section of the cursus was completely sterile, apart from the presence of flecks of charcoal in the fill.

Weston 1

The large central pit yielded only three flint flakes and a quartz pebble, $\frac{1}{2}$ in. diameter, which had been subjected to considerable heat. The sections of the ring ditch were sterile.

DISCUSSION

A survey of beaker material in Derbyshire has been published by Fowler$^2$ and to the inventory should be added the beaker sherds reported by the writer from Harborough Cave,$^3$ some sherds from Stenson,$^4$ and some further sherds from barrow 4 Swarkeston,$^5$ underlying the main barrow. With the exception of the sherds from Stenson and Swarkeston, all the material has come from the upland areas of Derbyshire, and it has previously been assumed that there was little occupation of the lowland

$^2$ Margaret J. Fowler, "The transition from Late Neolithic to Early Bronze Age in the Peak District of Derbyshire and Staffordshire", D.A.J., LXXV (1953), 66-122.
area of south Derbyshire bordering the river Trent. This picture has been radically changed by the many aerial photographs now available together with the material from Stenson, Swarkeston and Aston-on-Trent. It appears, in fact, that a considerable density of occupation was reached during the late neolithic and early bronze ages. The bell beaker burial at Aston-on-Trent is fairly typical with associated polished stone wrist guard and barbed and tanged arrowhead, and the beaker must have its ultimate origin in the Low Countries, probably Holland. The decoration clearly shows the "zone contraction", as defined by Van Der Waals and Glasbergen and may be paralleled in Holland. This suggests that the associated people may have entered the country through the east coast, probably Lincolnshire. The recent excavation by Manby of the chambered tomb at Green Low yielded bell beaker fragments, which he related to maritime beakers, whilst on the other hand the Aston beaker and the Harborough Cave material show affinities with the Dutch beakers. The necked beaker which can also be paralleled in the north-east, particularly in Yorkshire, suggests further or renewed contacts with the east and north-east coastal areas.

Dr. Longworth draws attention to the similarities of the neolithic pottery with Grimston ware, and to the neolithic sherds underlying barrow 4 at Swarkeston. A parallel also exists in the bowl from the Giants Hills long barrow, although this does not have the pronounced carination of the Aston bowl. However, this material must be derived ultimately from the Windmill Hill culture and probably represents a spread of variants into the midlands during the second half of the third millennium B.C. The amount of material from the site is relatively small, and the evidence suggests only temporary occupation, perhaps for one season only. The pottery represents an assemblage of bowls, and the corn was presumably being parched when the grains subsequently recovered were carbonized. The fragments of hazel-nut found also lend weight to the theory that the site was occupied until the autumn. This would then be followed by the siting of the hearth and pits due to seasonal flooding from the nearby river Trent.

A sample of the grain has been submitted to the British Museum for C14 dating. The material has been deposited in Derby Museum.

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Fig. 6. Aston 1, carinated bowl (1) and neolithic sherds (2-21) (1/3).
APPENDIX 1

THE NEOLITHIC POTTERY

By I. H. Longworth

Bowl (fig. 6, no. 1)¹

A number of sherds can be assigned to a fine, undecorated, carinated bowl whose rim diameter appears to be approximately 14 in. The paste is light and "corky", the original tempering material, probably chalk, having dissolved out. The colour is brown and the surface, where this remains, seems to have been well smoothed.

Sherds (fig. 6, nos. 2-18)

Of the remaining 59 sherds examined, all but four can be assigned to early-middle neolithic bowls. With one exception (no. 2), the sherds are quartz tempered varying from fine, with small inclusions, to coarse, with heavy gritting. The colour ranges through shades of grey and brown, and one or two sherds retain a burnished outer and well-smoothed inner surface. Rims tend to be simple, though there are two typical rolled-over examples (nos. 4 and 12), and the lip of no. 13 has been everted. Carinated bowls are clearly a feature of the assemblage, five sherds preserving portions of the shoulder angle which can be either weak (nos. 14-16) or more pronounced (nos. 17-18). The exceptional rim sherd (no. 2) which shows grog tempering is also the only sherd to carry decoration — an oval impression set some way below the lip on the external surface. This sherd is likely to belong to a local form of the Ebbsfleet style.

Sherds of beaker and later wares (fig. 6, nos. 19-21)

The remaining four sherds can be assigned to later contexts. A single, small, heavily weathered wall sherd of hard yellow paste, tempered with coarse sand, found in pit 2, may be beaker.² A rim sherd (no. 19) from the eastern segment of the inner ditch, decorated with a horizontal line of blurred impressions, possibly made with a toothed comb, is probably from the mouth of a food vessel. A smaller fragment preserving part of the internal rim bevel (no. 20) may be from a similar vessel. The sherd (no. 21) from the base angle of a large vessel is of a typical bronze age fabric and almost certainly comes from a collared urn.

Discussion

Not surprisingly the sherds from Aston 1 show a close relationship with the quartz gritted wares recovered from barrow 4 at Swarkeston.³ Though the material is not extensive, the form and paste of the reconstructed bowl is so similar to the Grimston ware of the Yorkshire Wolds as to put beyond doubt the impression created by the Swarkeston sherds⁴ that affinities with Yorkshire are very close.

The presence of probable food vessel and collared urn fragments along with the earlier neolithic sherds suggests the possibility that other secondary interments had once been made in the primary barrow and later disturbed.

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¹ I am indebted to Mr. P. C. Compton of the Department of British and Medieval Antiquities, British Museum, for kindly supplying the drawings of the neolithic bowl and sherds.
² Marked Ap2/1.
³ D.A.J., LXXX (1960), 23 ff. and fig. 9, nos. 1-3.