

I.

A STONE CIST AT JOHNSTON, LESLIE, ABERDEENSHIRE.

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The cist described was unearthed on the farm of Johnston, in the parish of Leslie, Aberdeenshire, on 4th May 1929. The site of the cist is about 250 yards west-south-west of the farm buildings, in a cultivated field that here lies high at an elevation of about 700 feet above sea-level; to the south, the level of the ground falls quickly down some 100 feet towards the Gadie Burn which flows about $\frac{1}{4}$ mile distant. The Gadie Burn falls into the Ury which, in turn, is a tributary of the river Don.

Evidence of the prehistoric occupation of the district is seen in the numerous flint implements that have been found, and in not a few cairns, and cists that, from time to time, have been unearthed. Fully a mile to the east, in the neighbouring parish of Premnay, three short cists were found on the farm of Mains of Leslie. Detailed accounts of these cists, one of which contained a skeleton with a beaker, another with unburnt fragments of bone and a beaker, and the third two beakers, were published by Mr J. Graham Callander, F.S.A.Scot.¹

About a quarter of a mile to the north-east of the site of the present cist stands a fine example of a ringing stone.

The cist was discovered while the field was being prepared for cropping, the cultivator tilting up a corner of the cover-stone. Fortunately Mr W. J. Chrystall, the tenant of the farm, was in the vicinity at the time, and recognising the importance of the find, took great care to have the cist and its contents kept undisturbed. Mr Chrystall afforded me the opportunity of making a detailed examination of the cist soon after its discovery.

There was no external mark indicating the position of the cist, which lies at a depth of only 10 inches below the surface of the ground. The cover-stone is an undressed slab of local Coreen stone, of irregular shape, 29 inches in its greatest length, 20 inches at the greatest breadth, and about $3\frac{1}{2}$ inches in thickness; in addition to the larger cover-stone there is a smaller piece measuring 15 inches by 7 inches and about $2\frac{1}{2}$ inches thick. These slabs roofed over the cist very closely so that little soil had found its way into the chamber.

The cist (fig. 1) is quite small, carefully made, and nearly rectangular, with the longer axis north-east and south-west. Each side and end consists of a single slab of Coreen stone about 23 inches long, 15 inches

¹ *Proc. Soc. Ant. Scot.*, vols. xli. p. 116, xliii. p. 76, and xlvi. p. 344.

deep, and $2\frac{1}{2}$ inches thick. The slabs are set so that they converge somewhat at the top, the inside measurements of the mouth of the cist being 20 inches long by 14 inches wide, while the corresponding measurements at the floor level are 26 inches long by $16\frac{1}{2}$ inches wide. The top of the slab on the north-west side is levelled up by two flat pieces of stone about $1\frac{1}{2}$ inch in thickness. In the bottom of the cist was a thin covering of fine soil which had found its way into the chamber, and slightly embedded in this at the north-east end lay a beaker on its side.



Fig. 1. Stone Cist at Johnston, Leslie, Aberdeenshire.

The contents of the cist were now removed, all soil being carefully riddled, and two small flint implements were recovered. Samples of the gravelly sub-soil, which composed the bottom of the cist, were taken, and later examination with the aid of a lens revealed the presence of particles of charcoal and bone among the gravel.

The beaker (fig. 2) measures 6 inches in height, $4\frac{7}{8}$ inches in diameter at the mouth, $4\frac{3}{10}$ inches at the neck, $4\frac{7}{10}$ inches at the bulge, $3\frac{1}{10}$ inches at the bottom, and the wall is $\frac{3}{10}$ inch thick. The surface of the urn is of a buff colour, while the interior is much darker in colour and comparatively smooth. The surface is decorated with five bands of herring-bone and lattice patterns, and by crossed and upright lines

between horizontal division lines, all evidently executed by stamping the clay while still moist with a toothed tool. The beaker is of the low-brimmed type, and is an example of a sub-type which according to Lord Abercromby seems to be confined to the north-east of Scotland.¹

It is of interest to note that on that part of the surface of the beaker that lay somewhat imbedded in the gravel of the floor of the cist the impressed patterns were filled with a whitish material, which made the ornamentation more noticeable. A sample of this white



Fig. 2. Beaker from stone cist at Johnston, Leslie, Aberdeenshire.

powder was carefully removed from the impressions and submitted to a detailed chemical examination.²

The chemical analysis shows the powder to consist of a large proportion of phosphate, a small amount of calcium, and traces of carbonate and chloride. Inside the bottom of the urn there was a thin film of a dark coloured greasy substance. This was removed by washing, and also submitted to chemical examination. The analysis shows

¹ *Journal of the Anthropological Institute*, vol. xxxii, p. 373.

² We are indebted to Professor Alex. Findlay, D.Sc., Ph.D., for having this analysis carried out in the Chemistry Department, Aberdeen University.

that in the film, in addition to a proportion of clay, there is present a fair amount of phosphate and calcium and traces of chloride. As the mineral matter of bone consists chiefly of calcium phosphate, with a small proportion of calcium carbonate and traces of other salts, it may be inferred that the composition of the white powder from the surface of the urn and of the substance from the interior of the urn prove that we are dealing with an interment, and that the accumulation of the powder in the depressions of the ornamentation of the urn is accidental.

Two worked flakes of flint were recovered from the interior of the cist. The larger implement is of light grey flint, is roughly triangular in shape, and measures $1\frac{1}{10}$ inch by 1 inch by $\frac{3}{10}$ inch in thickness. The base is unflaked, one side is thin and sharpened by chipping, the other is thicker and sharpened by two long flakings along its length. The implement does not seem to be pointed enough to have been used as a borer and it is difficult to explain its use. The smaller implement is of yellow flint, and measures $\frac{4}{5}$ inch by $\frac{3}{5}$ inch by $\frac{1}{5}$ inch in thickness. It is of the nature of a thumb-scraper formed out of a flake from the surface of a flint nodule; on the flaked surface the bulb of percussion is well seen, while the crust surface along one edge has been sharpened by secondary flaking.

The cist thus contained a beaker, two flint implements, and traces of charcoal and bone.

Beaker urns are usually found associated with burials by inhumation. In the present case it is difficult to say whether burial has been by inhumation or by incineration. The presence of the powder, consisting of phosphate and calcium, and the absence of definite pieces of calcined bone would indicate burial by inhumation—perhaps a child burial. A very similar small stone cist was unearthed in October 1905 at Tifty, in the parish of Fyvie, Aberdeenshire; it measured 22 inches long, 13 inches wide, and 10 inches deep, and contained some "ashes" and an urn of buff coloured clay belonging to the same sub-type of low-brimmed beaker.¹

The proprietor, Major W. V. Lumsden, D.S.O., M.C., has presented the Johnston cist with its contents to the University of Aberdeen, and it has been re-erected in the Anthropological Museum.

¹ *Proc. of Anat. and Anthropol. Soc. Univ. of Aberdeen*, 1904-1906, p. 137.