

NOTES.

A TOGGLE AND AN IVORY BUCKLE RECENTLY DISCOVERED AT
BRACKMONT MILL, NEAR LEUCHARS.

In a communication to this Society in March 1937 the late Dr J. B. Mears described some "Urn Burials of the Bronze Age at Brackmont Mill, Leuchars" (*Proc. Soc. Ant. Scot.*, vol. lxxi. pp. 252-78). He gave an account of the discovery at that site of some thirteen cinerary urns and incense cups, described the specimens and their contents, and discussed some of the problems raised.

Dr Mears had very closely supervised the excavation of the site, and his death has been a grievous loss to local archæology.

Since these discoveries were made removal of sand at the site has continued.

Fortunately, Mr Lewis H. Spence, the proprietor, had worked with Dr Mears and become imbued with some of Dr Mears's interest. He has watched very carefully the excavation and has noted and safeguarded the urns and any features of interest exposed.

A few yards from the site of the former finds, within recent months a number of additional urns or portions of urns have been disclosed. Under several of the urns lay small heaps of incinerated bones. These were collected by Mr Spence and sent to me at the University.

The objects described here came from under Urn No. 9. Mr Spence's notes regarding it were that "the whole urn was found; it was of medium size, 14 inches in height, 4 inches wide at the top, the maximum width 13 inches, the top 18 inches below the surface, and the interior of the urn was black." It is in fact an Overhanging Rim Urn with concave neck, belonging to phase III in Grimes' series.

The fragments lying under this urn included teeth, and portions of the skull and limb bones of an adult, probably a male, and among them two objects of unusual interest—one a "toggle," the other what may be termed a buckle.

The "toggle" (Pl. XLVIII, 1, *b*) was very like one found at Seggiecrook (Aberdeenshire), described by J. Graham Callander (*Proc. Soc. Ant. Scot.*, vol. lxiv. p. 31), but was smaller, measuring only 18 mm. in length and 8 mm. in width at its widest, while the Seggiecrook specimen was "1 inch long and $\frac{1}{8}$ ths in diameter at each end." The central part was D shaped in outline, one side flattened, and perforated at its middle by a circular hole 4 mm. in width. The annular grooves at each end were deep and their walls smooth. It was of bone, and might well have been formed from the hollow bone of a bird or small animal. It weighed 1.6 grammes.

The other larger object (Pl. XLVIII, 1, *a* and fig. 1) was an oblong plate of yellowish-white bone-like material measuring 47 mm. in length, 30 mm. in width, and 6 mm. in thickness, from one surface of which projected a flat hook.

Like the bone fragments among which it lay, it had been incinerated, and there were fine cracks and chips on the surfaces and edges, and a strip of material had partly split off from one surface.

Near the corners were small holes, whose arrangement will be fully described later. It weighed 16.5 grammes.

The nature and use of this object are uncertain, but it had apparently been attached to a garment and served as a buckle.

The plate was almost flat and the hook projected from one surface near one end. At its root the hook was 1 cm. wide and 5 mm. thick. It rose above the

surface for 6 mm., bent sharply on itself, and was prolonged as a flat tongue-shaped process 16 mm. long, narrowing to 7 mm. in width (fig. 1, *a*).

Its free end was slightly cracked by the incineration, but it could be determined that the interval between the end of the hook and the plate was rather less than 2 mm. The upper surface of the hook was beautifully fluted, with three shallow parallel grooves separated by low rounded ridges (fig. 1, *b*).

The hook had been cut out in relief from the same material as that which composed the plate.

The opposite side of the plate was slightly convex from side to side. A central strip 1 cm. wide had partly split off from the rest of the plate (fig. 1).

Holes and Tunnels in the Plate (fig. 1, *c*).—Near each corner holes had been drilled (Pl. XLVIII, *a*, top).

The arrangement of the holes was the same at each corner and was quite elaborate. At one corner slight chipping had broken away portions of the holes.

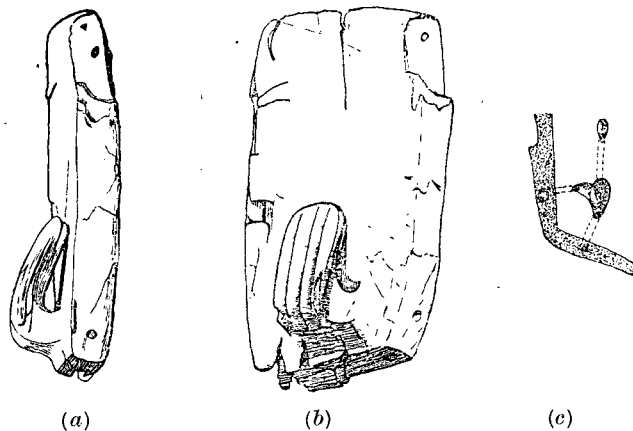


Fig. 1. The ivory buckle: *a*, in profile; *b*, showing fluting on the hook; *c*, diagram of the holes and tunnels at each corner. ($\times 2$)

From the central small pit the tunnels, shown by dotted lines, pass to the end, the edge, and reopen on the same surface as the pit.

There were no holes on the surface which carried the hook, but on the other surface, near each corner, 5 mm. from the end and 3 mm. from the side, was a small oval pit, some 3 mm. by 2 mm. in size. In the floor of each were three very small openings, each leading into a short tunnel; one tunnel led to the flat surface of the end, another to the side, while the third bored into the plate and opened on the same surface 5 mm. away. These tunnels were cylindrical, from 1 to 2 mm. in diameter, and the edges of the openings were in some cases bevelled off. Another opening on the same surface at the middle of the end next the hook opened on the marginal surface. To bore these through ivory with the implements of flint or possibly bronze such as were available at that period was a masterpiece of craftsmanship, for the little tunnels which opened at each end on the same surface of the plate were not straight but slightly curved.

The only purpose these tunnels could have served would be that of the holes in a button, for threads or fine cords attaching the buckle to a garment. In this case the cord would consist of three strands, one passing through each tunnel.

I have to thank Mr R. B. K. Stevenson, to whom I showed the specimen, for giving me the reference to the description of a somewhat similar object figured and described by Stuart Piggott in his account of the Early Bronze Age in Wessex (*Proc. of the Prehistoric Society*, N.S., 4, 1938).

In the excavation of the "Bush Barrow," Normanton, Wilts, a number of objects were discovered including a bronze axe, two very large bronze daggers, one with gold nails on the haft, two quadrangular gold plates, and what is described as a "gold scabbard-mounting." This was a gold plate, quadrangular, and almost square, slightly over 3 inches in length, and from one surface projected a hook very similar in its form and proportions to the hook of this specimen in ivory.

Comparison of his figures of the gold plate with this ivory buckle shows the close similarity of design of the two specimens.

The worker who made one must have been acquainted with the design of the other.

The Material of the Buckle.—The weight and the close texture of the material suggested to me that it might not be bone but ivory. In order to settle the question, some small fragments were removed from different parts of the plate, cleared in xylol and examined microscopically. Similar fragments of the toggle were treated in the same way.

In spite of their age and the incineration which the materials had undergone, it was possible clearly to make out their microscopical characters.

The fragments of the toggle showed the features characteristic of bone—Haversian canals and lacunæ. Those from the buckle were quite different and showed fine wavy lines, the dentinal tubules characteristic of dentine (ivory).

The microscopical characters did not disclose the source of the ivory—whether the tooth of a whale or the tusk of a walrus, or from some other mammal. The planes of splitting of the central strip from the rest of the plate threw some light upon this. These planes followed natural lines of cleavage between layers of the material and indicated that the general direction of the ivory was slightly curved, like the curve of a tooth rather than of a straight tusk.

In conclusion I have to express my thanks to Mr Spence for all his care and assistance, and to Miss M. H. Kidston, B.Sc., for her help in examining the remains among which these two objects were found and for her very careful and accurate drawings of the buckle (fig. 1).

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