3. AN ARROWHEAD OF RHYOLITIC ASH FROM LINLITHGOW, WEST LOTHIAN.

In December 1941, the Hunterian Museum, Glasgow University, acquired an arrowhead of unusual interest which had been found in 1899 about two miles to the south of Linlithgow, West Lothian. It was most generously presented by the finder, Mr William Dunigan, through his grandson, Mr Thomas

Neilon, a student of the University. The latter supplied the following account

of the discovery:—

"The arrowhead now in your possession was found by my grandfather, William Dunigan, in the summer of 1899 on a hill to the south of Linlithgow named Cockle Rue.

"He and two companions were sheltering from a sudden rainstorm behind the upturned roots of a huge tree which had recently fallen, and were speculating on its age from its immense roots, when the arrowhead was seen. It was firmly embedded in the roots and had to be cut out—that is, it must have been there before the tree started to grow and, prior to the uprooting of the tree, must have been at least 2 feet beneath the surface of the ground.

"Although Mr Dunigan is now eighty-two, and the last survivor of the

party, the details still remain clearly in his mind.

Until now, the arrowhead has never been out of his possession for one day and was kept as a memento of Linlithgow rather than for any archæological

value which it might have."

The arrowhead measures $3\frac{7}{8}$ inches in total length, $2\frac{1}{4}$ inches at its maximum width and ½ inch in thickness. It is shouldered but not barbed, and has a tang for insertion in a shaft. The shoulders are slightly rounded and form obtuse angles with the tang. The tang is $\frac{3}{4}$ inch long by 1 inch wide, and has straight parallel sides and a slightly concave base (Pl. XXVII, 2).

The size and shape of the arrowhead are consequently such as to suggest that it was of American, not Scottish, origin. The circumstances of discovery, on the other hand, render an American origin very improbable. As Mr Neilon remarked, the arrowhead must have lain buried in the earth before a tree of considerable age was planted—that is, at least decades, more probably centuries, before 1899. It is most unlikely that at so distant a date an arrowhead of American origin was brought to this country and accidentally dropped at Linlithgow. It seems much more reasonable to accept the arrowhead as a relic of the prehistoric era in Scotland.

This view was supported by a study of the material from which the arrowhead was made. A thin section of it was microscopically examined by Dr G. W. Tyrrell, of the Geology Department, Glasgow University, and found to be a fine-grained rhyolitic ash, very pale pink in colour, silicified and of a flinty appearance. Dr Tyrrell was of the opinion that the source of this material was one of the groups of rhyolitic lavas in the Pentland Hills.2 In that case, the findspot of the arrowhead was probably at no great distance from its place

of manufacture.

The apparently Scottish origin of the arrowhead at once provokes the question to what period and culture in Scottish prehistory it belonged. Unfortunately there were no associated finds to suggest an answer. Comparative material also appears to be lacking, for an exact analogy, of undoubted Scottish provenance, to the Linlithgow arrowhead has so far been sought in vain. may still await discovery, however, in some collection of Scottish material which is at present inaccessible. Meanwhile, it seems advisable to place on record so unusual a Scottish find, in the hope that further evidence on the questions which it raises may yet come tolight.

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² See Memoirs of the Geological Survey, Edinburgh District (1910), pp. 38 and 40.

¹ See, for example, Thomas Wilson, Arrowheads, Spearheads and Knives of Prehistoric Times in the Annual Report of the Smithsonian Institution for 1897, particularly pp. 917 ff.