## 3. CAPROVINE FOOT-PRINTS IN A ROMAN TILE

A ROMAN floor tile from Camelon, Falkirk, No. FX 313 in the National Museum of Antiquities of Scotland, has two imprints of cloven hooves made while the clay was still soft. Although no criteria for identification were given Anderson (1900)<sup>4</sup> described these as the footmarks of a sheep, and stated that another tile had the footmark of a dog.

Paw-prints are relatively common in Roman tiles, and even in medieval ones (e.g. Ryder, 1965),<sup>5</sup> but as I was not aware of any other description of a hoof-print it appeared worthwhile to make a more detailed investigation of these from Camelon.

It is assumed that the leading print (19 mm. deep) is that of a fore foot, and that the other one (12 mm. deep) is that of a hind foot, being made while the animal was walking (as opposed to trotting), and this conclusion is supported by the different dimensions of the two prints (Table 1 and Fig. 3).

The prints are clearly too small to have been made by cattle or Red deer, and the smaller deer (Fallow and Roe) can be dismissed because illustrations of tracks such as those by Taylor Page (1957)<sup>6</sup> show them to have a slender, tapering point. In addition, in deer tracks the hind foot registers almost completely on the print of the fore foot. Pig hooves are broader, and have a more rounded anterior edge.

Measurements of the width of the prints in the tile (Table I and fig. 3) suggested that they were too large for Romano-British sheep, which skeletal evidence suggests were of Soay type (Ryder, 1967); the hooves appeared to be more comparable to those of a moderately large goat, which might be thought to be more likely than a sheep to wander into a tile-maker's yard, and which may even have been drawing a cart. Indeed the space between the hooves is V-shaped, suggesting goat, and not sheep, which have an elliptical gap.8

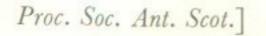
It was realised, however, that the width measured on the tile was the proximal width, and not the distal width which is measured on the living animal. Measurement of the distal width was possible on a plaster cast of the imprints which was kindly made by Mr J. A. Brown of the Museum staff. It is of interest that the cast revealed longitudinal

<sup>1</sup> PSAS, XCVII (1963-4), 157 f., fig. 1. The writer is indebted to Mr J. D. Boyd and Mr H. Coutts of Dundee Corporation Art Galleries and Museums for permission to examine this and other vessels and for providing photographs of several pots in their charge.

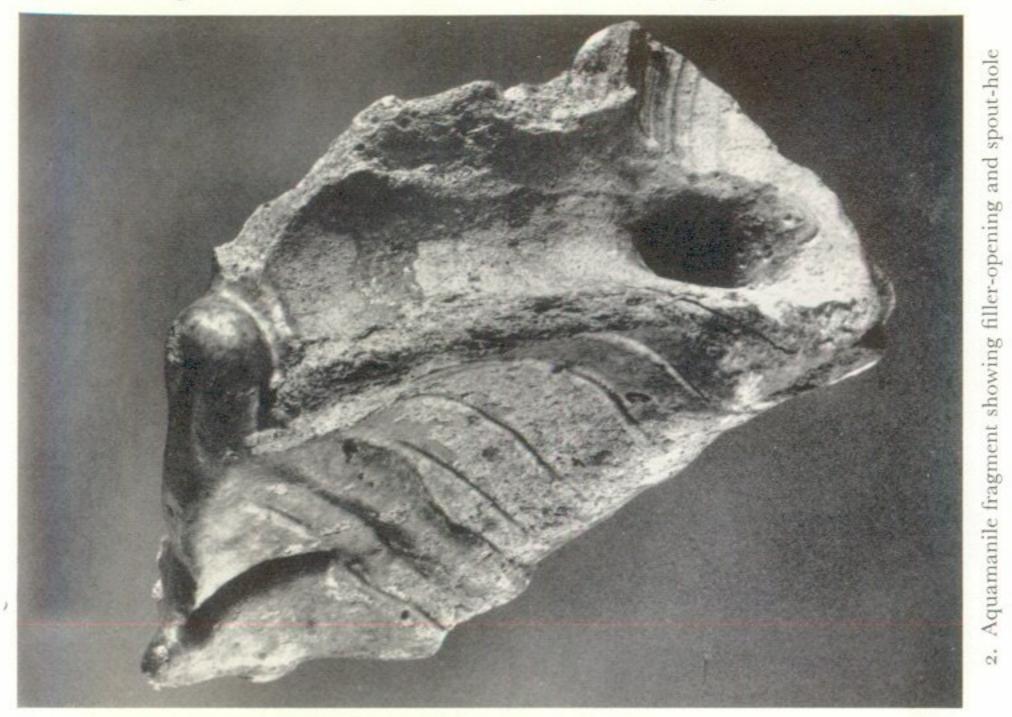
<sup>2</sup> PSAS, xxv (1890-1), 447 ff., fig. 1.

<sup>3</sup> PSAS, LXXVII (1942-3), 189 ff. pls. XXVIII and XXIX. <sup>4</sup> Anderson, J. (1900), Excavations of the Roman Station of Camelon, Falkirk; III. Pottery and other objects. PSAS, xxxv (1900-1), 380-417. <sup>5</sup> Ryder, M. L. (1965), 'Animal Remains' in Bellamy, C. V., Excavations at Pontefract Priory, Pub.

Thoresby Soc., XLIX, 133.
<sup>6</sup> Taylor Page, F. J. (1957), Ed. Field Guide to British Deer. Mammal Society of the British Isles.
<sup>7</sup> Ryder, M. L. (1967), The History of Sheep in Scotland. Scottish Studies, 12 (2) (in the press).
<sup>8</sup> Leutscher, H. (1960), Tracks and Signs of British Mammals. Cleaver-Hume.



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Ryder: CAPROVINE FOOT-PRINT and DUNBAR: AQUAMANILE

Cast of ? sheep foot-prints in a Roman tile from Camelon; view showing vertical striations in anterior surface of leading print (natural size)



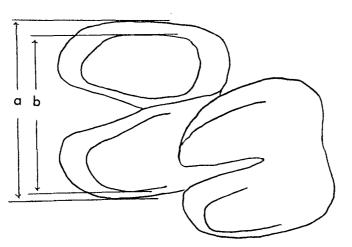


FIG. 3. Contour diagram of ? sheep foot-prints in tile (natural size); (a) proximal width from tile (46 mm.); (b) distal width from cast (40 mm.)

striations similar to those found in human finger nails (Pl. XXII, 1). Horizontal growth ridges are more common than vertical striations in hooves, and these may have arisen as the hoof was drawn from the wet clay.

## TABLE I

	Measurements of hoof widths (mm.)					
	Tile	Goat	Cast	Soay ram	Soay ewe	
Fore Hind	46 44	47 44	40 25	37	30 26	
IIIIG	44	44	35	35	20	

The table shows that the widths of the cast were closest to those of a modern Soay ram, and so identification of the prints as those of a Romano-British sheep is supported, but the possibility of goat is not ruled out.

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