## NOTES AND NEWS

can occur by chance in any flock carrying the potential genes; if a goat bearing such horns is selected for propagating this character, as has probably happened several times in the past, then a population could be developed which bore only the Girgentana-type horns. As long as such a population was maintained, with no out-crossing, it could be referred to as a 'breed', but it does not represent a distinct species.

2. The use of specific names as applied to domestic animals is the second problem to which I wish to allude; it is brought to focus by the series of articles, on goats with Girgentana-type horns, which has appeared in ANTIQUITY at different times from 1937 to 1956. Linnaeus, in his Tenth Edition of the 'Systema Naturae' (1758), designated the domestic goat as *Capra hircus*. Since, according to the International Rules of Zoological Nomenclature, names in this publication have priority over any subsequent names, all domestic goats, so long as they form, actually or potentially, an interbreeding population, can bear no name but *Capra hircus*. To call a goat *Capra girgentana*, merely because the shape of its horns varies from that of other domestic goats, is no more logical than would be the separation of people into species by differences in shapes of their big toes.

Each domestic animal has one specific name, and one specific name only. It is true that there are basic difficulties in naming domestic animals and their wild relatives as we investigate these animals at the time of origin of domestication, but this problem need not confuse the basic issues considered here. CHARLES A. REED,

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## FORE AND AFT RIGGING IN THE ROMAN EMPIRE

A recent number of *The Mariner's Mirror* (Vol. 42, No. 3, Aug. 1956) contains two notes, one critical and one favourable, on Professor Lionel Casson's recent article in the February number of the same journal (referred to in ANTIQUITY, No. 119) claiming that the Greeks and Romans of the 2nd to 4th centuries A.D. used sprit sails and lateen sails.

On p. 238 in 'Fore and Aft Sails in the Ancient World', L. Guilleux la Röerie, though he does not deny the possibility of fore and aft rigs in the ancient world, is nevertheless of the opinion that Casson's instances were not convincing. He considered that the alleged sprits on Casson's Plate I Nos. I and 3 were only symmetrical braces, that Plate I Fig. 2 was too vague to be useful, that he could not see the diagonal spar on Plate II Fig. 4 and that on Plate II Fig. 5 the ordinary motive of a man pulling at a brace has evolved into a man holding a spar.

On p. 239 in 'The Earliest Lateen Sail', Richard Lebaron Bowen Junior, who has had great personal experience of handling lateen-rigged boats in the Arabian Gulf, expresses complete confidence in Casson's examples of sprit sails and only criticizes the evidence for the lateen sail so far as to point out that Casson's photograph was taken from a copy, whereas a photograph taken directly from the relief in Athens shows that this sail would be more accurately described as a short-luff lugsail (as indeed are practically all the so-called lateen sails of Arab dhows now in the Arabian Gulf). Cf. H. H. Frese, *The Mariner's Mirror* 42. No. 2, 1956, p. 101, for other varieties of dipping lugs. R. W. HUTCHINSON,

## DIGGING-STICKS AND THEIR USE IN JAVA

The following extract from a letter written in 1939 by the late Professor R. G. Collingwood, soon after his return from Java, has been sent us by Mr Angus Graham, to whom we tender our thanks:

'I have seen digging-sticks in use, among tribes who have no ploughs or mattocks