NEWS AND VIEWS

Monsters by Sonar

THE Loch Ness monster has once more been disinterred from its proper habitat in the underworlds of fable. Dr Hugh Braithwaite and Professor D. Gordon Tucker announced in the Christmas number of *New Scientist* that they have detected echoes from the Loch which they find a "temptation to suppose must be the fabulous Loch Ness monsters, now observed for the first time in their underwater activities!" The furtive kraken has flown into the headlines on the viewless wings of sonar. A new type of equipment developed at Birmingham University was set up to monitor the Loch during two weeks in August. Two objects, one about 50 metres in length and the other much shorter, are believed by their fast rates of ascent and descent—up to 7·5 metres a second—to be groups of large animals. On the advice of their biological colleagues the two engineers exclude the possibility that shoals of fish could attain these speeds, but they say that studies with more refined equipment are needed before definite conclusions can be drawn.

The Loch Ness monster seems to have been invented in 1933, the date when it first allowed itself to be photographed. Before this time few, if any, people claimed to have seen it. The most famous photograph of the monster was taken by a London surgeon in 1943. Dr Maurice Burton, a zoologist with a long-standing interest in the monster's affairs, believes that this photograph shows an otter in the act of diving, and that all other films and photographs so far published are of commonplace objects such as otters, birds or floating debris. The monster legend holds that Loch Ness, once an arm of the sea, was pinched off by movement of the land, so trapping the monsters in its salty depths. In fact the Loch was excavated by Pleistocene glaciers and has always been a fresh water lake. Although parts of Scotland have subsided some 100 feet in Recent time, there is little chance of marine life having been washed into the Loch, let along surviving there.

The sonar equipment used by the Birmingham engineers has been tested by the Fisheries Laboratory at Lowestoft, where it seems to have been discovered to be prone to ambiguities. For example, two targets at the same range but different bearings tend to appear on the screen as a single object while, under certain circumstances, a shoal of fish swimming horizontally through the sonar beam could give the impression of a rapidly diving object. In other words, there is little reason to take seriously the claims of Dr Braithwaite and Professor Tucker to have found a monster.

ARCHAEOLOGY

Long Barrow

from our Archaeology Correspondent

THE complete excavation of a long barrow at Ascott-under-Wychwood in Oxfordshire, which was started in 1965 and is due to be completed next season, has provided valuable insights into the way these monuments were built. The internal structure of the barrow has turned out to be considerably more elaborate than expected. Mr D. Benson of the Oxford City and County Museum, who has directed the excavation, says that the barrow dates from between 3000 and 2000 BC.

The barrow, 50 metres long and tapering from 15·8 metres to 7 metres, is supported by two dry stone walls about its perimeter. The earth mound was apparently built by piling earth on either side of a central spine, defined in places by rows of stones and in other parts of the barrow by hurdles which are represented by rows of stake holes. The whole structure has remarkable bilateral symmetry, which suggests that the builders had some method of measurement. The central area of the barrow between the spine and the perimeter walls is in places divided off by stone partitions buried in the mound, which gives the impression of internal chambers; the plan, in fact, is reminiscent of the plans of continental neolithic houses and it is possible that the barrow enshrines house building traditions of neolithic immigrants from the mainland of Europe.

Undoubtedly the most important discovery this season was the unearthing of six cist graves—one empty—arranged in an unusual pattern, in a row across the long axis of the barrow towards its narrow western end and completely unconnected with the false entrance at the wide eastern end. There is probably a seventh cist grave on the midline of the barrow which will be excavated next year. A preliminary examination of the skeletal remains shows that at least twenty people were buried in the barrow. All the graves except one, which contained the skeleton of an old lady buried in a crouched position, contain the remains of more than one person and they all contain the remains of young people. Another striking feature of the burials is that only parts of the bodies seem to have been buried. A detailed anatomical examination of the bones should provide valuable medical evidence of the contemporary diseases.

The excavation has also revealed evidence of neolithic and mesolithic occupation in the soil sealed below the barrow and thus protected from the disturbance of centuries of ploughing. This is a particularly important discovery, of course, because neolithic living sites are rare in Britain simply because of prolonged agricultural activity in most areas. The neolithic finds include some 700 sherds, hearths, small pits and well preserved animal bones, and charcoal samples for carbon 14 dating have been taken from this occupation as well as from the barrow. It seems likely that neolithic people occupied the site for anything up to 500 years before the barrow was built. The mesolithic material, worked flints, is scattered amongst the neolithic material and no clear stratigraphy has yet been found, which suggests that the mesolithic people remained in the area after the arrival of the neolithic farmers or—less likely—that neolithic disturbance of the soil brought about the mixed distribution.