

ARCHAEOLOGY

Missing Fort Found

from a Correspondent

THE discovery last summer of remains of a Saxon fort in the centre of Dover provides the missing link in the chain of nine coastal forts listed in the Roman *Notitia Dignitatum*. Eight of the nine forts contained in the civil and military list, which was probably compiled in the fourth century, were discovered long ago at sites from Norfolk to the Isle of Wight, but the site of the last one, named Dubris, remained elusive. The first full account of the finding of this fort has now been published in the spring issue of the *Kent Archaeological Review*, by B. J. Philp, the chief excavator.

Although the exact location of Dubris was not known until its south wall was unearthed last July, Sir Mortimer Wheeler predicted as long ago as 1929 that the fort probably lay underneath the present market square. Several attempts to establish its existence by excavating in the area proved abortive, however, and a number of archaeologists were even forced to suggest that the fort may never have been situated in Dover. The building of a new road through the centre of the town, however, provided a good opportunity for a rescue-research dig where buildings had been demolished. The fruit of this labour was the discovery of two separate forts, one dating from the second and the other from the third century AD. Twenty thousand archaeological finds were also unearthed during the excavation.

The second century *Classis Britannica* fort may have been deliberately pulled down to make way for the larger and more strongly fortified Saxon shore fort, and the aim of further excavation this year will be to look at such a possibility. The Saxon fort seems to be trapezoidal in shape, with the walls meeting at an angle of about 100 degrees, and this shape may account for the failure of previous attempts to find any part of the structure. Other late Saxon shore forts, at Burgh Castle (Norfolk) and Bradwell (Essex), were also trapezoidal in shape, while earlier forts, such as Reculver, were rectangular. Otherwise, the Dubris fort matches Reculver in size—the west wall, for example, is at least 45 m long.

As far as the *Classis Britannica* fort is concerned, this discovery, Mr Philp suggests, proves the existence of a major naval base at Dover during at least the second century AD. Associated with the fort, the excavations unearthed fragments of tiles bearing the initials CLBR, representing the *Classis Britannica*, of British fleet, and a delicate bronze hand holding an orb surmounted by a dove-

like eagle. This is apparently a victory symbol that was mounted on a wooden frame for ceremonial occasions.

ENVIRONMENT

Advanced Planning

from a Correspondent

PLANNING is now well advanced for the United Nations Conference on the Human Environment, to be held in Stockholm in June 1972. This was apparent at the meeting of the 27 nation Preparatory Committee held in Geneva from February 8 to 19. By the end of the general debate, one thing was already apparent—whereas a year ago at the first meeting of the committee, it seemed as though the United Nations might be pioneering in this field, the conference now appears as the logical product of genuine governmental interest. This meeting was lively, constructive and above all businesslike. One factor making for a useful meeting was the clarity and forcefulness of Mr Maurice Strong, seconded from his position as head of the Canadian International Development Agency. The Stockholm Conference, Mr Strong explained, is conceived on three levels: conceptual; "action plan" and "action completed". Documentation will be in line with this approach. The chief document at the first level will thus be a "Report on the State of the Environment" summarizing individual reports submitted by governments, United Nations agencies and other organizations. At the two other levels will be—apart from these official reports—case studies of especially valuable experience and "basic papers" covering specific aspects of subjects not adequately dealt with elsewhere.

Delegates at Geneva this time were impressed with the way in which these preparations have been pushed ahead. They were, however, obviously concerned that the list of topics suggested for discussion was too long, and during the two week meeting a good deal of streamlining took place. The six main subjects areas suggested were, however, retained: the planning and management of human settlements for environmental quality; the environmental aspects of natural resource management; pollution identification and control (in the broadest sense); the educational, social and cultural aspects of environmental issues; the relationship between development and environment; and the implications of proposed actions in respect of (new) international organizations or institutions. With regard to the last of these items, the government delegates were unanimous in insisting that there was no need to set up a new United Nations organization to deal with environmental problems. As Mr Hoveida, Iran's

deputy foreign minister, put it, the United Nations should do its own family planning in this respect.

It has also been decided to set up working groups to study five subjects on each of which it is hoped that action might be possible as a result of the Stockholm conference. These topics include marine pollution, erosion and soils conservation (with especial reference to wetlands and oceanic islands), monitoring and the proposed Declaration on the Environment, regarded as one of the chief objectives of the conference. The organizers have by now abandoned earlier proposals to treat in the same way the compilation of a "register of chemical compounds" obviously a source of considerable embarrassment to several governments.

On only one subject did the delegates appear to feel somewhat uneasy, and that was the participation of the less developed members of the world community at Stockholm. A glance at the empty chairs around the committee's table showed that hardly any of the "third world" countries that could have been represented were in fact present. For example, Africa was represented only by Zambia and Latin America by Brazil and Mexico, although both the Iranian and Indian delegates made full contributions to the debates. Evidently it will take a good deal to persuade the governments of many of these countries that concern for the environment is not just a luxury nor even a disease of the rich countries.

PHYSICS

Surfaces Selected

SURFACE physics is to be treated by the Science Research Council as a selected area, deserving special support for at least five years. This is the chief recommendation of a panel set up by the SRC Physics Committee and it has now been accepted in full by the Council's Science Board (*The Physics of Surfaces*, Science Research Council, 1971).

The surface physics panel is one of about fourteen such bodies which have been set up by SRC committees to review activities in different areas of scientific research. The aim is to highlight new growth points which deserve special support—a report to the physics committee on plasma physics has, for example, already been published and other physics panels are looking into subjects such as ion implantation and amorphous materials (especially semiconductors). In line with the SRC's doctrine of selectivity, most of the grants awarded in selected fields will go to outstanding individuals and university departments.

The physics committee received re-