

## British Ordnance Maps and their Revision

O<sup>N</sup> May 28 of last year the Minister of Agriculture and Fisheries appointed a Departmental Committee on the Ordnance Survey, with the following terms of reference:

(a) to consider what measures are necessary to accelerate the revision of the Ordnance Survey Maps in order to bring them up-to-date and hereafter to maintain them at a high level of accuracy, while providing for such other public services as are undertaken by the Ordnance Survey Department;

(b) to consider what immediate steps are possible in the meantime to revise Ordnance Survey maps to the extent necessary for the purpose of town and country planning schemes;

(c) to review the scales and styles of Ordnance Survey maps placed on sale to the public and to recommend whether any changes are desirable; and

(d) to review the conditions upon which the reproduction of Ordnance Survey maps is permitted.

Owing to the urgency of certain aspects of the inquiry, the Committee has issued an Interim Report\* referring only to matters forming the subject of paragraphs (b) and (d). The Minister considers these to be of pressing importance in view of the fact that many schemes under the Town and Country Planning Act 1932, and other Acts, are held up because of the absence of up-to-date maps which local authorities are required to submit with their planning projects.

Successive director-generals have repeatedly pointed out, but without avail, the state of disrepair into which the 25-in. plans have been allowed to lapse. In the period of the Great War, this could not be avoided, but since the War it certainly has been a wasteful policy to starve the

\* Interim Report of the Departmental Committee on the Ordnance Survey, Pp. 16. (London: H.M. Stationery Office.) 3d. net. Ordnance Survey, especially in view of the great changes which have taken place on the face of the country causing the maps to become rapidly out of date. It should have been a period of survey activity, instead of the reverse. Numbers of Acts, culminating in the Town and Country Planning Act of 1932, have been passed in recent years, none of which could be effectively put into operation without really up-to-date maps, yet the means to provide them has been consistently withheld.

According to the Report, 1,400 plans, on the 25-in. scale, require substantial revision before they can be submitted by local authorities with schemes requiring the sanction of the Ministry of Health; while with the existing staff of the Survey not more than two hundred plans could be revised, according to Ordnance Survey standard. before the end of 1937. In order to meet this situation, the Committee recommends that an interim edition of the plans be prepared for the special purpose of town planning schemes, showing only sufficient detail to enable them to be used to illustrate such schemes. They would show new field boundaries, buildings and other physical features but omit new bench-marks, names of new roads and streets and the numbers and areas of 'parcels' in which alterations have taken place since the last edition. These omissions would not impair the eventual completion of the plans according to Ordnance style. It is estimated that the time saved by adopting this method would be one year, and that the whole of the 1,400 plans could be revised by the existing staff sufficiently for town planning purposes by December 31, 1938.

The above plan presupposes the concentration of the whole of the present staff on the interim plans, which would have the effect of "causing delay and complicate the normal revision still further". The Committee therefore recommends "that there should be an immediate increase in the establishment of the Ordnance Survey, if the production of plans for town planning purposes is to be accelerated, and normal revision resumed and expedited at the earliest possible moment". By this means the Director-General considers the earliest date by which the immediate demands of the town planning authorities could be satisfied would be June 1938, although some plans would be available before the end of 1936.

The Committee then goes on to consider the application of aerial photography as a means of accelerating map revision. It is satisfied that it is possible in this way to produce an accurate plan with sufficient detail for town planning purposes, as described above, and that the employment of air photography might lead to considerable acceleration in the output of maps.

Mention is made of a recent experiment in this connexion, carried out by contractors for the Ordnance Survey, and to the fact that the photographs failed to cover some portions of the area and that sufficient overlap was not always provided to enable the photographs to be submitted to stereoscopic examination. However, the results showed it is possible to produce from air photographs, without revision on the ground, a revised plan which would meet the requirements of town planning.

We think that in referring to the gaps in the work, and to the lack of necessary overlap in the photographs in the experiment in question, it should have been pointed out that these defects were largely due to the late date at which the contract was placed, whereby many excellent 'photographic days' were lost, and to the insistence on the employment of the auto-pilot, which has not yet reached a stage in development sufficiently advanced to meet the exacting requirements of photographic surveying; otherwise these faults could easily have been made good. We believe that if the next contract, recommended by the Committee, is given early enough in the season and is not hampered by restrictions, air photographs will provide all the information necessary to produce the plans required in a much shorter time than by ground methods.

The concluding portion of the Report deals with the conditions of reproduction of Ordnance Maps, which are Crown copyright, by the public. An appendix contains draft proposals on the subject.

We await with interest the final report of the Committee, especially as to whether the measures it recommends will lead to the adoption of a single projection for the 25-in. map, the basis of all other scales, as explained in NATURE of February 1, 1936, p. 165. We note with surprise that this Committee, which has to deal with highly technical matters, does not contain a single surveyor.

## Essays in the History of Science

## Osiris

Vol. 1: A Volume of Studies on the History of Mathematics and the History of Science. Presented to Prof. David Eugene Smith on his 76th Birthday (Jan. 21, 1936). Edited by George Sarton, with the cooperation of Prof. R. C. Archibald, Miss B. M. Frick, Dr. A. Pogo. Pp. 777. (Bruges: The Saint Catherine Press, Ltd., 1936.) 6 dollars (to members of the History of Science Society, 5 dollars).

THIS is the first volume of a new series intended to be supplementary to the well-known quarterly journal *Isis*, the organ of the History of Science Society and of the International Academy of the History of Science; the series is to contain the longer articles, each volume constituting a special number, while *Isis* will continue to be a quarterly journal containing the shorter articles, reviews, notes and correspondence. The present large volume is, most appropriately, dedicated to Prof. David Eugene Smith, of Columbia University, New York, the veteran historian of mathematics and author of many other mathematical works. It is a pleasure to see so fitting and worthy a tribute paid to Prof. Smith on the occasion of his seventy-sixth birthday.

At the beginning of the volume, after the dedication by the editor to Prof. Smith, is a very remarkable bibliography of his critical, historical and pedagogic writings. These consist, first, of books, articles and pamphlets, introductions and reviews of which Prof. Smith is the author (508 items); secondly, of books, articles and committee reports edited or translated by him (45 items); and lastly a list of encyclopædias and periodicals