

tions from the pattern render the eye less effective for its purpose. The question of purpose is there throughout, but the methods are the orthodox methods of physics. It is true that the physiologist, like the engineer, makes use of terms and concepts that have no place in the classical theory of physics, as laid down by Descartes and Newton ; but it is permissible to conclude that the classical theory can be revised and expanded, and not necessarily that physiology is no part of physical science.

Of course, if the natural world was split by a radical dualism such as Prof. Wolff assumes, then science would be impotent in its own domain and the philosopher might well disregard its efforts and construct a purely idealistic philosophy on subjective lines. This, in effect, seems to be what he does. In any event, the case for a purely idealistic method in philosophy is an arguable one, though the arguments do not convince everybody ; but it is very doubtful whether the case is improved by pretending that what are really subjective concepts have been derived from biology.

A. D. R.

Early County Maps of England

Reproductions of Early Engraved Maps. 2: English County Maps in the Collection of the Royal Geographical Society. With Introduction and Notes by Edward Heawood. Pp. ii + 14 + Atlas of 21 Sheets. (London: Royal Geographical Society, 1932.)

THIS group of twenty-one reproductions, in black and white, of maps of England will be of great value to all interested in the history of cartography. The original maps were all printed from engraved copper plates ; some of them were originally over-painted by hand in colours, but these admirable reproductions are necessarily made from unpainted copies. The twenty-one plates comprise one general map of England and Ireland, by an unknown author, dated 1594 ; nineteen county maps strictly so called ; and one sheet of playing-cards, illustrated by miniature county maps. The county maps proper vary in date from Saxton's "Southamptonia" of 1575 to John Speed's version of Norden's map of Sussex, dated 1610 ; so that it may be said that the Royal Geographical Society has reproduced a selected group of the earlier county maps, and has not, in the present publication, reproduced any of the later and more detailed maps on larger scales, such as Roque's Surrey or Taylor's Hampshire.

An excellent feature of the present publication

is that we are able to compare the work of different cartographers. Here we are given Saxton's Hampshire, which can be compared with Norden's map of the same county, on the same scale, of about twenty years later. Norden's map is more detailed but is not so pleasant or easy to read. We have also in this collection two versions of Surrey, Cheshire and Hertfordshire, and three of Sussex. One might construct a mathematical mean of some of these maps which would presumably be more reliable than any one of them.

The county maps reproduced include five by Christopher Saxton, the father of modern English mapping ; three by John Norden, whose work is original and independent. Then we have Philip Symonson's map of Eastern Kent, published in 1596 ; and a series of seven maps, out of a known total of twelve, belonging to "a homogeneous series", of unknown authorship, dating from the early years of the seventeenth century, based generally on Saxton or Norden, with variations ; then two maps prepared for Camden ; two published by John Speed, copied in the case of Sussex from Norden, and in the case of Cheshire from Saxton, with some alterations. It is a rich cartographical feast.

The collection is accompanied by an introduction and detailed notes by Mr. Edward Heawood. There is much to be learnt from the remarks of this high authority, and many curious facts are brought out, with reference, for example, to the manuscript maps of William Smith, "Rouge Dragon" ; or to the work of Symonson of Rochester ; or to Norden's maps of nine counties, which were original productions and not copies from Saxton. Mr. Heawood tells us that the "anonymous" series, is, as regards the engraving, of the Dutch-Flemish school ; and, as regards the material, is influenced by both Norden and Smith. He also remarks that although John Speed did not always acknowledge his almost complete indebtedness to Saxton or Norden, "in any case Speed did good work in assembling material otherwise scattered", and points out that Norden himself valued Speed's editorial work.

A small correction is required on p. 9, where Saxton's "Southamptonia" is described as not dated ; actually the date 1575 will be found under the coat of arms in the south-east corner.

Geographers owe a debt to the Royal Geographical Society for having thus rendered accessible facsimile copies of these important early county maps, some of which are of great rarity and some unique.