

Fifteen hundred years or so earlier the gradations would be similar, but the zones would have contracted. We should see :

(1) In Egypt and Mesopotamia true cities the walls of which may already enclose nearly two square miles, relieved from immediate dependence on environmental accidents by public works and organized commerce, comprising a variety of artisans and officials, including scribes.

(2) Smaller cities in Syria less richly equipped, and only partially literate.

(3) Copper Age townships in Anatolia and peninsular Greece with a walled area of two to four acres, and a population comprising specialized smiths and some other craftsmen adequately provided by trade with metal and other raw materials.

(4) In Thessaly, Macedonia, and the Morava-Maros region beyond the Balkans, neolithic villages are permanently occupied by experienced farmers who are content to do without metal.

(5) North of the Maros Körös herdsmen and Bükkian troglodytes are grazing and tilling patches of löss and then moving on ; still farther north Danubian I hoe-cultivators are shifting their hamlets of twenty odd huts every few years to fresh fields until they reach the confines of the löss.

(6) Beyond these on the North European plain are only scattered bands of food-gatherers hunting, fowling, and fishing, and collecting nuts or shell-fish.

In each picture we see within a continuous area of interlocking cultures gradations such as would be deduced from the diffusionist postulate. But a comparison of the second picture with the first reveals just that expansion of the zones affected by the neolithic revolution that would be anticipated were its effects being indeed diffused. The acceptance of axiom 4, the rigorous application of his chronological method alone, would virtually allow the graphic demonstration of Montelius's remaining assumptions.

Obituary Notices

Prof. Samuel Alexander, O.M., F.B.A.

WITH the death of Prof. Samuel Alexander in his eightieth year, we have lost one of the few creative thinkers of our day. At the end of the nineteenth century many believed that all philosophical systems had been thought of, so that there could be no new ones, and that, as hitherto no British philosopher had ever produced a system, none ever would. Alexander's work refuted both these beliefs.

It has been customary to call his philosophy realist as opposed to idealist, but it is not so easily classified. It is true that he revolted against the Hegelian tradition he was trained in, but even more he revolted against that wider tradition, not necessarily idealist, that makes the theory of knowledge the central and almost the only topic of philosophical discussion. For those of the tradition, the sole starting point of philosophy is the individual conscious mind, and 'knowing' is its unique relation with the world, if there is one. For Alexander the starting-point is the world as known ; knowing is not a unique relation but is common to all related beings that 'prehend' each other, to use Whitehead's term. As a conscious being I 'enjoy' my activities as knower, but this 'enjoyment' is strictly irrelevant to any discussion of what is known. The iron 'knows' the magnet but does not 'enjoy' it, for it lacks the privilege of consciousness. The spider 'knows' the fly and incidentally may or may not 'enjoy' it, and so *mutatis mutandis* does the fly. The starting-point then is the world as known, and Alexander finds its universal substratum or matrix to be space-time, which includes minds and bodies and everything.

Bergson helped Alexander to realize that time cannot be left out as a regrettable imperfection ; and the mathematical physicists that space and time separately are not primary. Time is related to space much as mind is to body. The main task of philosophy is to point out and classify the recognizable features of space-time, that is to say, the categories. The world as we now see it is the result of a process of development such that there is a hierarchy of natures. Of these the higher can understand the lower but not the lower the higher. Minds are the highest natures we are acquainted with. There is potentially a higher stage in the hierarchy towards which the universe may be said to be striving : this is deity. It is deity that is the end of moral progress and the object of religious worship.

Alexander himself said that his philosophy was Spinoza's "with Time put in". There are, in fact, many resemblances between these two Jewish philosophers and their philosophies. For both of them philosophy must begin with the results of the natural sciences, but must go beyond them to make their crown and completion. Unless in this process philosophy becomes theology and moral theory, it is nothing. Alexander realized, as did Kant, the further point that a philosophy with a naturalistic basis must come to terms with man's sense of beauty and artistic activities. In his later years he was occupied mainly with these problems.

The external events of Alexander's life can be briefly told. He was born in Sydney, New South Wales, in 1859 ; like Kant, the son of a saddler. He went to Wesley College, Melbourne, then to the University of Melbourne, and in 1878 won a Balliol

Scholarship. At Oxford he performed the unusual feat of a first class in both Classical and Mathematical Moderations before taking a first in Greats in 1881. In the following year he was elected fellow of Lincoln College, where he remained until his appointment to the chair of philosophy in Manchester in 1893. He held this chair until his retirement in 1924, and he stayed faithful to Manchester to the end of his life. As presenter for honorary degrees until 1930 and as honorary professor he kept in close touch with the University. He lectured frequently in Manchester and elsewhere as long as his strength allowed. The University of Manchester possesses a fine bronze bust by Epstein which has preserved the severe beauty of his bearded head, but leaves the beholder to guess the kindness and humour that were also visible in life.

Alexander's philosophical writings are none of them 'popular' and are not to be read without intellectual effort; but given that effort they are found to be clear and straightforward and free of unnecessary technicalities. His first book, "Moral Order and Progress" (1889), which was awarded the Green Moral Philosophy Prize, was written before he developed his characteristic views. The long interval between this and the appearance of his chief work, "Space, Time, and Deity" (1920), filled with only one small book on "Locke" (1908), represents the incubation period of his philosophy. The first expositions of his views, in short papers from 1907 onwards, appeared at the time to be excessively paradoxical and made little impression. The invitation to Glasgow as Gifford Lecturer in 1916-18 was therefore well timed to induce him to develop his whole system in one comprehensive work. Later books are: "Spinoza and Time" (1921), "Art and the Material" (1925), "Beauty and Other Forms of

Value" (1933). His numerous papers in the *Proceedings of the Aristotelian Society, Mind*, and other journals have not been published in book form.

In spite of his deafness, Alexander was the most sociable of men. He never forgot old friends and continually made new ones. People of all kinds and all ages were equally drawn to him. He was a witty speaker on social occasions, and his technique in presenting honorary graduands will long be remembered: a dexterous mixture of information and compliment spiced with gentle malice. The various honours bestowed on him of late years gave him unaffected pleasure: they merely confirmed his modest belief that people were kinder to him than he deserved. Though all his life a poor man who spent more on others than himself, during the last few years he gave to the funds for Jewish refugees as though his wealth was unlimited.

At the end, Alexander was ready and even glad to die, tired perhaps of a world where the insane persecution of his people has begun again, and where the reason and humanity in which he had put his faith seem to be fighting a losing battle. A. D. R.

WE regret to announce the following deaths:

Sir Philip Dawson, a distinguished electrical engineer, who received the George Stephenson Gold Medal of the Institution of Civil Engineers and also the Albert Medal of the Royal Society of Arts, on September 24, aged seventy-one years.

Lord Marks, known for his work in civil, mechanical, hydraulic and electrical installations, and founder of the firm of Marks and Clerk, patent agents, with which the late Sir Dugald Clerk was associated, on September 24, aged eighty years.

News and Views

Development of Museums and Galleries

THE Standing Commission on Museums and Galleries, of which Sir Evan Charteris is chairman, has just issued its second report, covering the five years 1934-38 (London: H.M. Stationery Office, 1938. 9d. net). The Commission was appointed in 1931 to advise generally on questions relevant to the most effective development of the national museums and galleries of Great Britain. The report surveys the very considerable building developments which have taken place in the period under review and directs attention especially to the part played in this by private benefactors: Lord Duveen's provision of sculpture galleries at the Tate Gallery, and one for the Elgin Marbles at the British Museum; also Sir James Caird's benefactions to the National Maritime Museum at Greenwich, and the gifts made by Sir Alexander Grant to the National Library of Scotland, are referred to. The Commission was invited by

the Treasury to advise on the general proposals for future building schemes, which would cost some £1,000,000, and to indicate an order of priority for them. Its recommendations, which it is understood have been accepted, provide for the entomology block of the Natural History Museum (second half), and the lecture hall for the Royal Scottish Museum being begun in 1938 and completed in 1939. These are to be followed by the central section of the Science Museum in 1940, the northern wing of the Natural History Museum in 1941, and the Museum of Ethnography in 1942, these being completed in from two to four years.

THE Commission has also been asked to advise on the future development of the site at South Kensington, which has of late been under consideration and was discussed in a leading article in *NATURE* of September 17. Final plans are not yet available and