

Neanderthal Man a Distinct Species.¹

THE fossil crania of the extinct members of the human family have been described and measured by many investigators; but it has long been recognised that there were important lacunæ in our information that had to be made good, and a lack of uniformity in the methods of measurement. Dr. Morant has rendered a very useful service to anthropology by himself measuring all the available crania and providing a complete and uniform treatment of the series in accordance with the refined mathematical methods of Prof. Karl Pearson.

How valuable and important such statistical investigations can be was shown in Dr. Morant's first memoir in this series, in which he provided a mathematical confirmation of Testut's opinion that the Chancelade skull (found in the Magdalenian deposits in the Dordogne thirty-eight years ago) conformed to the racial type of the modern Eskimo, a view that has been so vigorously championed in recent years by Prof. Sollas, and many years ago, in the face of vigorous opposition, by Sir William Boyd-Dawkins.

The second memoir, dealing with the series of Neanderthaloid skulls, is particularly valuable—for providing exact data and the careful investigation of the measurements and interpretation of their meaning. At the present moment, when doubt is once more being cast on the validity of the species *neanderthalensis*, it is important to get Dr. Morant's emphatic corroboration of our morphological conclusions. He informs us that the available measurements of the skulls associated with the Mousterian phase of culture in Europe and Palestine indicate a remarkable homogeneity of type, between which and all modern racial types there is a distinct hiatus, which may be taken to indicate a specific difference. "Some modern races resemble the Neanderthaloid type more closely than others do, but there is no race, or group of races, which is particularly dis-

tinguished in that way." "The working hypothesis that Mousterian man is equally related to all races of *H. sapiens* would seem to be the safest to adopt in the present state of our knowledge. In that case it is impossible to decide whether *H. neanderthalensis* has been a stage in the direct line of descent or not."

With these conclusions most anatomists would agree, with the qualification that the many signs of specialisation in the skull and teeth as well as in the limb bones are fatal to the suggestion that *H. neanderthalensis* could have been in the direct line of descent.

In his recent Huxley lecture, however, Dr. Alěš Hrdlička has questioned (NATURE, Nov. 19, p. 750) the validity of the specific distinction of Neanderthal man, an issue which most anatomists imagined to have been definitely settled by the investigation of Schwalbe in 1899, and the corroboration afforded by the work of Boule and a host of other anatomists. It will be remembered that when the original Neanderthal skull was found, Prof. William King (in 1864) suggested it was a distinct species, if not even a distinct genus, but Huxley opposed this claim and got his way. Thirty-five years later Schwalbe, with ampler material and modern criteria, made out a good case for the reality of the specific distinction, which the discoveries of the skeletons at La Chapelle-aux-Saints, La Quina, La Ferrassie, and elsewhere in 1908 and the succeeding years seemed to put beyond all question.

It is the way of true science constantly to submit to scrutiny the foundations of its theoretical views—a discipline to which a restive anthropology is not always willing to submit. The only justification for re-opening the problem of the status of Neanderthal man would be afforded by new evidence or new views, either of a destructive or constructive nature. I do not think Dr. Hrdlička has given any valid reasons for rejecting the view that *Homo neanderthalensis* is a species distinct from *H. sapiens*. Dr. Morant's important memoir comes at a very appropriate time to buttress the generally accepted view against such criticisms as Dr. Hrdlička's.

G. ELLIOT SMITH.

Obituary.

MR. LEON GASTER.

WE record with great regret the death of Mr. Leon Gaster, who passed away after a brief illness on Jan. 7. Mr. Gaster's chief work was the founding of the Illuminating Engineering Society, of which he had been honorary secretary since its birth in 1909. A year earlier he had founded the *Illuminating Engineer*, the official organ of the Society, which he edited up to the date of his death. A very sad feature was the fact that his death occurred shortly before the issue of a special number of his journal, celebrating its twentieth anniversary.

Mr. Gaster was a member of many scientific and technical committees, amongst which may be

mentioned the Home Office Departmental Committee on Lighting in Factories and Workshops, the Illuminating Research Committee working under the Department of Scientific and Industrial Research, and various committees of the British Engineering Standards Association concerned with illumination. But his wide interests and enthusiasm led him into many other fields of work. He was keenly interested in the National Safety First Association and in the Association of Special Libraries and Information Bureaux. He was a fellow of the Institute of Journalists, and was in turn honorary secretary and chairman of its Scientific, Trade, and Technical Circle. He was also the honorary secretary of the British

International Association of Journalists, and as such was mainly responsible for the organisation of the International Press Conference in London last year.

Even this list does not exhaust the record of Mr. Gaster's activities. He used to affirm that he was a member of no less than thirty different scientific and technical committees. To every piece of work he undertook he brought boundless enthusiasm and indomitable perseverance. He delighted in meeting and disarming opposition, and few could resist his diplomacy and personal charm. It was, perhaps, in international activities that his special gifts found their chief application. Born in Rumania, educated in Switzerland, and with a wide knowledge of foreign countries, he was at once at home in any international gathering. This knowledge stood him in good stead in connexion with his work on the International Commission on Illumination, and in his conduct of the affairs of the British International Association of Journalists.

Mr. Gaster's foresight and sagacity, especially displayed in connexion with illuminating engineering, were remarkable. He had a genius for the correlation of different fields of scientific work and for discovering opportunities for joint effort which few would have perceived. He used to describe his occupation humorously as a 'committee promoter,' but he also found time for a considerable consulting engineering practice, where his knowledge of the world and powers of diplomacy proved quite as valuable as his technical skill. He was

a man who made friends by instinct, and was equally well known in journalistic and scientific circles. It is no exaggeration to say that his name was known all over the world. His early death—in spite of his achievements he was only fifty-five years of age—will be widely regretted and his loss severely felt.

We regret to announce the following deaths:

Dr. Emil Bose, formerly of the Geological Survey of Mexico and the author of numerous contributions on the Mesozoic of Mexico and the Permian of western Texas, on Nov. 8, aged fifty-nine years.

Prof. C. Diener, professor of palæontology in the University of Vienna, and a foreign correspondent of the Geological Society of London, well known as the editor of the "Fossilium Catalogus," on Jan. 6, aged sixty-five years.

Sir Dyce Duckworth, Bart., president of the Clinical Society of London from 1891 until 1893 and *correspondant étranger* of the Paris Academy of Medicine, on Jan. 20, aged eighty-seven years.

Mr. E. Kay Robinson, well known as a writer and lecturer on natural history topics, on Jan. 20, aged seventy-two years.

Prof. F. L. Washburn, professor of entomology at the University of Minnesota, and State entomologist from 1902 until 1918, on Oct. 15, aged sixty-seven years.

Dr. Israel C. White, State geologist for West Virginia since 1897, in which year he was a vice-president of the American Association for the Advancement of Science, on Nov. 24, aged seventy-nine years.

News and Views.

PROF. ARTHUR HUTCHINSON, who has been elected Master of Pembroke College, Cambridge, to fill the vacancy caused by the sudden death of Dr. Hadley, shares with Prof. Seward the honour of combining the offices of Master of his College and professor of a department of science in the University. Prof. Hutchinson was educated at Clifton (1879) and Christ's College, Cambridge (1884), graduating in 1888 with a first class in both parts of the Natural Sciences Tripos, having taken chemistry as his subject in Part 2. His first paper, published in 1889, was the result of work in collaboration with M. M. Pattison Muir "On a Cubical Form of Bismuthous Oxide." He next studied in Germany at Munich and at Würzburg, taking his Ph.D. at the latter University and carrying out research under Emil Fischer on the reduction of aromatic amides. Returning to Cambridge, he worked with W. Pollard on "Lead Tetra-Acetate and the Plumbic Salts," publishing the results in 1893 and 1896. In 1895, the professor of mineralogy appointed him demonstrator of mineralogy, and under this title for many years he gave almost all the lectures for the first year course in mineralogy and crystallography. It was not until 1923 that the University appointed him lecturer in crystallography. He eventually succeeded to the professorship after the death of Prof. Lewis in 1926.

PROF. HUTCHINSON'S connexion with Pembroke College dates from his election to a fellowship in 1893. He held the office of assistant-tutor from 1900 until his election as president of the College in 1926. In the meantime he had served the University on many boards, and was secretary of the General Board of Studies from 1920 until 1925. During the War, he carried out tests for the Admiralty on gas helmets, and for this and other services was awarded the O.B.E. He was president of the Mineralogical Society from 1921 until 1924, and was elected a fellow of the Royal Society in 1922. Lectures and college work left little time for scientific research, yet from 1900 to 1910 no year passed without his making some notable contribution to mineralogy, and in addition he prepared the section on mineralogical chemistry for the *Annual Reports of the Chemical Society* from 1905 until 1913. His first purely mineralogical paper, "On Stokesite, a New Mineral Containing Tin, from Cornwall," was a remarkable example of a complete chemical and physical determination made on a minute amount of material. This was followed by papers on the chemical composition and optical characters of chalybite, a study of the diathermancy and optical characters of antimonite, and on the composition of lengenbachite. More recent important contributions are on the stereographic and gnomonic projections and on