

OBITUARIES

Dr. Eugene Dubois

DR. EUGENE DUBOIS who, exactly half a century ago, discovered in Java the fossil remains of that strange being which he regarded as transitional between ape to man and to which he gave the name *Pithecanthropus erectus*, died at his home in Haarlem, Holland, on December 16, 1940. The discovery of the most famous of missing links was announced to the world by a monograph published in Batavia in 1894 and entitled "*Pithecanthropus erectus, eine Übergangsform*". No single discovery in the realm of dead things has given rise to such a voluminous literature, to so many animated discussions or to so many divergent opinions. There are not so many alive now who remember the arrival of Dubois in England in the autumn of 1895, and saw with their own eyes the material evidence of man's evolutionary past which he had just brought back from Java, and took part in the debates which the discovery aroused. Right to the end of his life Dubois maintained that the being he had unearthed was neither man nor ape, but represented a stage which marks the transition from ape to man. Some of his Continental critics regarded *Pithecanthropus* as a gigantic gibbon; others gave the thigh bone to an extinct form of man and the skull cap to an extinct form of ape. British anatomists, on the other hand, took the view that *Pithecanthropus* was a hominid—an early form of man.

In 1898 Dubois again came to Great Britain, to attend the Fourth International Zoological Congress, held in Cambridge. He, the late Sir Grafton Elliot Smith and I were guests of Dr. W. L. H. Duckworth at Jesus College. By this time Dr. Dubois had succeeded in extracting from the skull cap the stony matrix which had filled it and had taken from its interior a cast reflecting the features of the *Pithecanthropoid* brain. A glimpse by the expert eye of Elliot Smith revealed to him features in the brain which were altogether human; it was a very early human stage which had been discovered. This verdict was confirmed by the *Pithecanthropoid* family unearthed in the Trinil formations of Java by Dr. Koenigswald during 1936-39¹. There was much doubt, too, as regards the geological horizon to which *Pithecanthropus* should be assigned. Dubois favoured a late Pliocene date; the consensus of opinion now is that the date is early Pleistocene, which makes *Pithecanthropus* a contemporary of Peking man in China and of Piltdown man in England.

In 1925 I gave the following account of Dr. Dubois²: "If Dr. Eugene Dubois had been born in the 16th century his spirit of adventure would have found its outlet on the Spanish Main, but being added to the population of Holland in the latter half of the 19th century, when Darwinian ideas were spreading across Europe, he went in search of the 'missing link'. Having finished a training in science and in

medicine at the University of Amsterdam in 1888, he became a military surgeon, choosing Java for his service. Before setting out for that island, he promised his fellow students, in all seriousness, to bring home the missing link".

This statement brought me a long letter from Dr. Dubois giving several important and desirable details relating to earlier years of his career, details which will become of increasing interest as years go by. The greater part of this letter is reproduced here in his own English:

Haarlem,

2nd April, 1925.

"Let me express my gratitude for the personal kind note on the discover of the Wadjak Man and *Pithecanthropus*. At the same time I beg leave to correct some personal statements.

"It was not a spirit of adventure but of scientific reasoning (see a paper in the 'Natuurkundig Tijdschrift voor Nederlandsch-Inde' of April 1888) that pithecoïd human forms should be expected in pleistocene or pliocene deposits of the Malayan Archipelago, that induced me to undertake palæontological researches in that archipelago. Before I went to Sumatra (where I expected to make excavations in the many caves of the Padang high lands) in 1887, I had been, during seven years³, Max Fürbringer's assistant and pro-sector, finally lecturer on Anatomy at the University of Amsterdam. . . . My purely scientific work had been chiefly of comparative anatomy, especially on the larynx. . . .

"I did not promise my fellow students, in all seriousness, to bring home the 'missing link', but I did tell Prof. Max Fürbringer and Max Weber, my motives why I preferred to give up a certain and beautiful anatomical career for an uncertain one as a field paleontologist, the only way giving access to the latter being that of engaging as a military surgeon in the Neth.-Indian army.

"The paper in the 'Natuurk. Tijdschr.' and some paleontological results of excavations of caves in Sumatra, then induced the Ned.-Ind. Government to charge me officially with *paleontological researches in the pleistocene and pliocene deposits of Sumatra and Java*. From these I brought home a collection at least five times as large as that of the Selenka expedition (1906). I collected also in the Siwalik Hills.

"*Pithecanthropus* was not found in the 'Hell' of Java, but near that 'Hell', this being the garrison town of Ngaur, in the neighbourhood of Trinil, owing its name of 'Hell' to the circumstance that it was in former times a military convict settlement. . . . In 1898 I was appointed as professor of Geology and Paleontology at the University of Amsterdam."⁴

On returning to Europe in 1895 Dr. Dubois placed only a little of his goods in his 'shop-window'; right on to the end of his life he fetched surprise packets from his back-shop. In 1920 he produced the Wadjak fossil skulls, although he had found them before *Pithecanthropus* came to light. It was the publication of a description of a fossil skull

found in Australia that made him release the Wadjak specimens—which also had Australoid characters. In 1924 he at last published excellent illustrations of the brain cast of *Pithecanthropus* and also produced a piece of a fossil mandible which he had found in 1890 and now attributed to *Pithecanthropus*. In 1932 he produced fragments of three more thigh bones of *Pithecanthropus*.

The cemetery of fossil man which was discovered and exploited by Dr. Dubois in Java has proved to be rich beyond any other in every respect—rich in actual numbers and in types which preserve details of the sequence of humanity that has flitted across the time stage of Java these million of years past. The series begins as ape-men and ends in the aboriginal type of modern Australia. Only in this Australo-Malayan part of the world is the evolutionary history of man known with any degree of fullness⁵, and for this we are chiefly indebted to Dr. Eugene Dubois.

A. KEITH.

¹ See *NATURE*, 144, 926 (1939).

² "Antiquity of Man", Second Edition, p. 438.

³ Dr. Dubois was above medium stature, and although full-bodied, carried himself rather rigidly erect. When in England in 1895 he seemed to be under thirty years of age; from the above statement one infers he must have been born about 1858.

⁴ This letter, although it contains further interesting details, is too long to give in full; the original is to be added to the library of the Royal College of Surgeons, (London, W.C.2).

⁵ See Keith, *NATURE*, 138, 277 (1936).

Sir Hugh Murray, C.I.E., C.B.E.

SIR HUGH MURRAY died at Nunton Cottage, Bodenham, Salisbury, on February 9. For more than fifty years Hugh Murray was connected with and played an active part in the development of forestry and forestry administration in India and Great Britain; both Bombay and England will long remember him and his delightful personality. Murray was born on April 27, 1861. He was educated at Trent College and took his forestry training on the Continent. He joined the Indian Forest Service in 1882, being appointed to the Bombay Presidency.

As a district forest officer, Murray acquired the reputation of being a hard-working and tactful officer, and this recognition was fully maintained when he reached administrative rank in the Presidency. During the twenty-nine years of his service there were some very difficult forestry problems bearing upon the habits and customs of the agricultural population in Bombay which came up for, if not solution, at any rate settlement for the time being. As he rose in seniority Murray was able to give valuable advice in this direction; especially when he occupied the position of Senior Conservator in the Presidency and Additional Member of the Provincial Legislature. He retired from the Indian Service in 1911.

Soon after the outbreak of the War of 1914–1918, Murray was called into the War Office to advise on the then urgent and totally new question of obtaining timber supplies under war conditions. For three years he was thus occupied, becoming deputy controller of timber supplies in 1917.

The Forestry Commission was inaugurated in 1920 as a result of the Parliamentary Bill of 1919. A

number of commissioners were appointed, and a technical assistant commissioner for England and Wales and a second for Scotland. Murray was appointed to the English post, and a better choice at that time could probably not have been made, for senior trained foresters with ripe administrative experience were few in number. His chief work was connected with the acquisition of land for the new State forests, and in this he displayed great ability. He was equally interested in the planting work then being started on a large scale and in the research inaugurated at this period. After four years Murray was appointed a forestry commissioner, thereby strengthening the technical position of the Commission. He remained a commissioner until 1934, when he finally retired.

He married, first, Gwendoline Mabel Langridge and had a son; and secondly, Dorothy Christine, daughter of the Right Hon. Sir William Mather, and had a son and daughter. E. P. STEBBING.

Mr. J. Picken

MR. JAMES PICKEN, one of the alkali inspectors in the service of the Ministry of Health, died suddenly on February 17, aged forty-six. After a period of service with the Royal Garrison Artillery in France, Mr. Picken took his degree at the University of Glasgow, and was afterwards for some years in charge of the Glasgow Corporation's chemical works at Dawsholme and Provan. He received his appointment as one of H.M. inspectors of alkali works in 1924, and from that time had been in charge of the Sheffield district, where his unflinching tact and courtesy, together with the efficient but sympathetic manner in which he carried out his duties, had earned him the respect and affection of all with whom he came into contact.

WE regret to announce the following deaths:

Dr. Annie J. Cannon, assistant in the Harvard College Observatory during 1897–1911, and curator of astronomical photographs since 1911, aged seventy-seven.

Dr. David Forsyth, an authority on the diseases of children, on April 10, aged sixty-three.

Sir Nigel Gresley, chief mechanical engineer of the London and North-Eastern Railway, on April 5, aged seventy-six.

Prof. K. N. Konstantinovich, director of the Moscow Institute of Experimental Biology and formerly director of the Central Station of Genetics, aged sixty-nine.

Mr. J. C-S. McDouall, O.B.E., formerly director of Medical Sanitary Services, Sierra Leone, on March 25.

Prof. Carlos G. Malbran, professor of bacteriology in the University of Buenos Aires.

Sir Albert Seward, F.R.S., professor of botany in the University of Cambridge during 1906–36, on April 11, aged seventy-seven.

Prof. Roy B. Smith, emeritus professor of chemistry in Colgate University, aged sixty-five.