

Note on the Piltdown Man (*Eoanthropus Dawsoni*)

The Geological Magazine October, 1913
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In a communication to the International Medical Congress recently reported in some of the English newspapers, Professor Arthur Keith expressed complete disapproval of my reconstruction of the skull and mandible of *Eoanthropus Dawsoni*.² I concluded that the brain capacity of this skull was comparable only with that of some of the lowest existing savages, while the mandible must have been provided in front with teeth of the ape pattern.

Professor Keith, on the other hand, has restored the skull in such a manner as to have a brain capacity of 1,500 cubic centimetres, thus exceeding that of the average modern European. By distorting the curve of the front of the mandible he has also furnished it with completely human teeth. These two views, therefore, need careful examination before any definite conclusions can be drawn from this remarkable fossil.

Fortunately, Mr. Dawson has continued his diggings at Piltdown during the past summer, and on August 30 Father P. Teilhard, who was working with him, picked up the canine tooth which obviously belongs to the half of the mandible originally discovered. In shape it corresponds exactly with that of an ape, and its worn face shows that it worked upon the upper canine in the true ape fashion. It only differs from the canine of my published restoration in being slightly smaller, more pointed, and little more upright in the mouth. Hence we have now definite proof that the front teeth of *Eoanthropus* resembled those of an ape, and my original determination is justified.

It may next be questioned whether this ape-like mandible belongs to the skull. We can only state that its molar teeth are typically human, its muscle-markings are such as might be expected, and it was found in the gravel near to the skull. The probabilities are therefore in favour of its natural association.

If so, it is reasonable to suppose that the skull will prove to be that of a very primitive type, not that of a highly civilized man. I have accordingly made a new study of the specimen, with the special help of my colleague, Mr. W. P. Pycraft, and I find that the only alteration necessary in my original model (made by Mr. Frank O. Barlow) is a very slight displacement of the occipital and right parietal bones, which Professor Elliot Smith pointed out to me when he made his first studies of the brain.

Both behind and in front I correctly identified the internal groove for the upper longitudinal blood-sinus, which marks the middle line of the roof of the skull; and the reason why my adjustment of the occipital was not exact at first is, that on the hinder part of the parietal region of the skull-roof I noticed a longitudinal ridge which I supposed to be truly median, while the extraordinary unsymmetrical development of the brain seemed to have pushed the longitudinal sinus at that part slightly out of its normal place.

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I now know that the longitudinal ridge is one of a pair. The change, however, only opens the upper part of the skull behind to an extent of three-quarters of an inch, and there are compensations elsewhere through the necessary readjustments, so the total brain capacity remains nearly the same as that I originally stated, well within the range of the smallest human brains of the present day.

I may add that I have submitted the new brain-cast to Professor Elliot Smith, who allows me to state that he finds it in all essential respects correct. He will shortly describe it in a memoir on fossil human brains to be read before the Royal Society.

1. Abridged from a lecture delivered to the British Association, Birmingham, September 16, 1913.
2. C. Dawson & A. S. Woodward, "On the Discovery of a Palæolithic Skull and Mandible in a Flint-bearing Gravel overlying the Wealden (Hasting Beds) at Piltdown, Fletching (Sussex)," *Quart. Journ. Geol. Soc.*, vol. lxi, pp. 124-39, pls. xviii-xx, 1913..