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Comments on the Piltdown Affair

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Source: *American Anthropologist*, New Series, Vol. 56, No. 2, Part 1 (Apr., 1954), pp. 287-289

Published by: Wiley on behalf of the American Anthropological Association

Stable URL: <http://www.jstor.org/stable/664368>

Accessed: 05-09-2017 23:41 UTC

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COMMENTS ON THE PILTDOWN AFFAIR

It is easy to be wise after the event, but such *ex post facto* wisdom can hardly impress the critical. It has been more difficult for the writer to accept the conclusions of Messrs Weiner, Oakley, and Le Gros Clark that a deliberate fraud has been perpetrated than it was for him to believe in the legitimate association of an apelike mandible and a completely human brain case in the same individual. The latter belief scarcely involved the swallowing of a camel, since disharmony or asymmetry in human evolution has been strikingly manifested in many other fossil specimens, although to a lesser degree. To cite only one instance, the dentitions of the Australopithecines seem far more humanoid (or hominoid, if one prefers that word) than one would guess them to be on the basis of the size and morphology of the associated brain cases. Probably more than one-half of the anthropologists and other students of ancient man who have considered the Piltdown problem have refused to believe that the jaw belongs with the skull and can now say "I told you so." The writer was not one of these and so belongs in the group that has been wrong from the start, if we are to believe the present "solution."

Of course, the new evidence requires us to reject the results of the earlier fluorine tests, which suggested that the mandible and the brain case were of the same age, and raises the question of the amount of variation that is likely to occur in such chemical analyses as a result of differences of techniques. On the whole, one optimistically presumes later analyses to be better and more accurate than earlier tests. How dependable this fluorine analysis is in determining the relative age of specimens gathered within the same deposit, but perhaps at considerable distances from each other, this writer is unable to say. However, it seems necessary to accept the present findings that the mandible, on the basis of chemical tests, is recent and the parts of the brain case no older than Upper Pleistocene. It may be well, however, to keep in mind a small reservation—that this conclusion is based upon present evidence and might be changed, for one reason or another, in the future. It now seems unlikely that the Piltdown mandible will ever be re-established as an authentic specimen, but the writer has seen the tides of credulity in the matter of the acceptance of alleged scientific finds (e.g., "eoliths") ebb, and flow, so often over the years that he is inclined to think that scientific solutions are usually not absolute, but only approximations to the truth.

The evidence with regard to the alleged abrading or grinding down of the teeth is too technical for the present writer to evaluate, but this too should be accepted, at least provisionally, until someone can show that similar wear conditions can occur in nature without faking. The other information about the staining of the mandible and the character of the bone samples seems also irrefutable. In the matter of the coloring matter of the Piltdown canine, the statement that "it is a tough, flexible paintlike substance" carries the implication that the coating was painted on. What is this substance? Is it in fact paint? If we are to depend upon chemical analysis for the authenticating or discrediting of all of these Piltdown specimens, these analyses should be

definitive. On the whole, it seems to me that anthropologists must accept, as the present solution of the Piltdown problem and possibly the final solution, the conclusions of Weiner, Oakley and Le Gros Clark that the mandible was deliberately faked.

I do not think that even the most skeptical and perspicacious of the students of the Piltdown finds ever in the past entertained the idea of a dishonest "plant." It is the only really shocking and tragic aspect of the affair. It is of no importance that various distinguished anthropologists, and some of us who are undistinguished, "have to eat crow" in the matter of having accepted the association of the mandible with the rest of the skull and having fabricated, as a result, what Weidenreich always insisted to be a "chimaera." There is no radical readjustment of theories of human evolution that is necessitated by the consignment of *Eoanthropus* to the dump. It is still possible and wholly probable that the more complete finds (which Washburn insists upon) will reveal the high Pleistocene antiquity of an essentially homo sapiens type of man. The present writer, who may be gullible to the extent of perversity, would not be surprised to live to witness the discovery even of an *authentic* *Eoanthropus*—jaw, brain case, and all.

What really worries me is the revelation to a laity that is often hostile to biological science of calculated dishonesty on the part of the someone intimately concerned with a discovery of supposedly great importance to the history of man. It is as shocking as the proof that men in high places of our own government have betrayed their country. Already the press is flooded with accusations by antievolutionists that all of the other evidence of man's origin from an apelike ancestry has been deliberately faked by unscrupulous scientists. The fact that the Piltdown fraud is possibly and even probably unique will be very difficult for the public to accept. The circumstance that the existence of this apparent fraud has been frankly and courageously exposed by anthropologists who are themselves evolutionists will be played down or disregarded. I myself am proud of Weiner, Oakley, and Le Gros Clark. They do honor to science by their fearlessness and their candor: they reflect credit upon anthropology by their skill and their thoroughness. Yet I should like them to be proved wrong—for what may seem to some to be largely sentimental reasons and a mistaken faith in the integrity of anthropological discoverers of a past generation.

I reject the thought that Sir Arthur Smith Woodward could have had anything to do with the perpetration of this alleged fraud. Nor would I have believed it of Dawson, whom I never knew.

To me the greatest lesson of the Piltdown affair is not that pointed by Washburn—"that there never was enough of the fossil to justify the theories built around it." I do not agree that anthropologists should refrain from formulating theories of human evolution round incomplete and fragmentary fossils. If Dubois had not been willing to speculate about the meaning of the calva and the supposedly associated femur of *Pithecanthropus*, an important phase of human evolution that was accurately forecast from this discovery might

have had to await the discoveries of Von Koenigswald nearly a half century later. If Dart had not been willing "to stick his neck out" about the human affinities of *Australopithecus*, at a time when a great many anthropologists considered that he had mistaken infantile features for humanoid characters, perhaps Robert Broom would never have been stimulated to go out and get the evidence that justified Dart's early opinions. Anthropologists need not be rash and irresponsible in the interpretation of fragmentary evidence, but they should not be pusillanimous and motivated principally by caution and fear of being proved wrong by future discoveries. It has always seemed to me that the persons who in science or in any field of thought or activity stand in perpetual fear of being "wrong" are never really right. Nor do I think that we have reached a stage in the furnishing of our fossil stores, where we may sit back and say to ourselves, "We are now so adequately provided with fossil remains that we shall refuse seriously to consider any new finds unless they are, so to speak, those of articulated skeletons."

The great lesson of the Piltdown business for me is that it is unwise to accept current scientific decisions and "proofs" as final, irrevocable, and conclusive, no matter how authoritative they may sound or look. Always keep in mind the possibility, however small it may presently appear, that future evidence and improved scientific techniques may alter that proof, conclusion, or decision.

Another lesson, and perhaps equally important, from my point of view, is that, although there may be a few crooks among scientists and their assistants and adherents, the practitioners of science are in the vast majority of cases men who are perfectly honest and so scrupulous in their search for closer and closer approximations to the truth that they will not try to cover up any sin that may have been committed by one of the very few black sheep in their flock, no matter how damaging to the reputation of science that revelation may be.

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