

appears to be correlated with the length of day in relation to the time of hatching of the eggs.

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THE SANTA BARBARA SKULL

THE news items now being carried in *SCIENCE* Supplement are intended, of course, not for the specialist in the field to which they relate, but for those who may wish to keep in touch with the advance of science in general. This service is highly useful and is to be commended. However, by reason of the special object of the service, it becomes the more necessary that proper safeguards be thrown around these items to insure their essential accuracy. Signed articles written by specialists are judged on their merits. But with news items, it is expected that the information given either is uncontroverted or that the fact that it is controverted will be stated.

An item of news contained in *SCIENCE* Supplement of November 9, 1923, under the heading of "The Santa Barbara skull," departs so widely from the ideal standard of this service that it should not be allowed to pass unnoticed. The statements in question appear to have originated in the department of physical anthropology of the United States National Museum the name of Dr. Aleš Hrdlička of that department being mentioned. In this communication there is given as an item of news a categorical pronouncement as to the age of human remains found in America, and in addition an inaccurate statement as to one particular find of human remains. The antiquity of man in America is an extremely important matter to science, and at the present time is in controversy. Under these conditions it is not proper to circulate in *Science News Service* the opinion of one man, disregarding the opinion of all others who may be concerned with the same subject.

It is said in the news item under review that "the earliest human remains so far found in America date back only about three thousand years." Who, among those most experienced in reading time records, has examined the many finds of fossil man in America and determined this three thousand year limit? It is true that Hrdlička has reviewed the occurrence of early man in America. However, Hrdlička is a physical anthropologist and not a geologist, and the time element in this case is distinctly a geologic problem. Of course, those who choose to believe that man has been in America no more than three thousand years are privileged to do so. It is not, however, their privilege to circulate such opinions as unsigned items of news in a publication of the standing of *Science News Service*. Some others who have given attention to this subject have come to the conclusion that man

has been on this continent for a very long period of time.

It is also said in the communication referred to that "in 1916, near Vero, Florida, remains were found which for a time were thought to be those of a very primitive type of human remains." This statement is incorrect; for while there was, and is, much difference of opinion as to the age of the Florida fossils, whether recent or Pleistocene, there has been no difference of opinion as to their character, no one having regarded them as primitive. The Vero human remains derive their particular interest from the fact that, although apparently structurally like modern man, they are there found in association with a considerable group of extinct species, including both plants and animals.

On the question of the method of interment of the Vero fossils, opinion is likewise divided. Hrdlička has been able to see in the remains only a human burial. On the other hand, others who examined the locality, including Berry, Chamberlin, Hay, MacCurdy and Sellards, found abundant and plain evidence in the geologic conditions to show that the human remains and artifacts were carried to their resting place by the stream and were a part of, and the same age as, the formation in which they were imbedded.¹

In the case of the Vero find, Dr. Hrdlička, in advance of an examination of either the material or the locality, arrived at the conclusion that "both finds were seemingly burials."² Likewise in the case of the Santa Barbara skull an intimation of a conclusion in advance of the evidence is contained in the item published, in which it is stated that "anthropological experts of the Smithsonian Institution expect that scientific investigation by men trained in bone study will prove that the age of the supposedly primitive skull found at Santa Barbara, California, has been greatly overestimated."

The writer has no information on the Santa Barbara skull; it may prove to be recent. The present communication, therefore, is not a defense of that find, but is a protest against arriving at conclusions in advance of the evidence, and particularly against the use of *Science News Service* to spread propaganda favorable to certain particular views or theories.

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¹ "Symposium on the age and relations of the fossil human remains found at Vero, Florida." *Journal of Geology*, Vol. XXV, Nos. 1 and 4, 1917. For a list of publications relating to the Vero fossils, see *Amer. Journ. Sci.*; (4), Vol. XLVII, pp. 358-360, 1919, or *Fla. State Geol. Surv.*, 10th An. Rpt., 1919.

² Personal communication to the writer, July 20, 1916.