SCIENCE

Vol. LX JULY 4, 1924 No. 1540

CONTENTS

Present Status of Investigations concerning Antiq-	
uity of Man in California: DR. JOHN C. MERRIAM	1
Ancient Human Remains in Los Angeles, California:	
DR. CHESTER STOCK	2
"Analyzed Sound" in Nature: DR. ALEXANDER	
Forbes	5
Scientific Events:	
Pittsburgh Training School's Lecture Course on	
Science and Education; Barro Colorado Island Bio-	
logical Station; The Third Pan-American Scientific	
Congress; Geology at the Toronto Meeting of the	
British Association; Gifts to Harvard University	8
Scientific Notes and News	
University and Educational Notes	
Discussion and Correspondences	
On the Proper Wording of the Titles of Scientific	
Papers: Dr. E. W. GUDGER. The Relation between	
Volatility and Toxicity of Nicotine: E. R. DE ONG.	
Science and Industry: Dr. JEROME ALEXANDER.	
The Argentine Weather Service: DR. H.H. CLAYTON	19
	10
Scientific Books: Power and Thompson's Chronologia Medica: F. H.	
	16
GARRISON	10
An Apparatus for the Study of Microorganisms	
in Culture Solutions under Constant Hydrogen Ion	
Concentrations: Dr. C. P. SIDERIS. A new Method	
of obtaining Mosaic "Virus": JAMES JOHNSON	
and MAURICE MULVANIA	17
Special Articles:	11
Chromosomal Chimeras in the Jimson Weed.	
DR. ALBERT F. BLAKESLEE and DR. JOHN BELLING.	•
Unique Dietary Needs for Lactation: DR. HERBERT	
M. Evans	10
•	19
The American Chemical Society: Division of Organic Chemistry: Dr. J. A. NIEUW-	
LAND	22
Science News	x
DUIDIOU ITUWO ALLANDALANDALANDALANDALANDALANDALANDALA	А

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKeen Cattell and published every Friday by

THE SCIENCE PRESS

Lancaster, Pa. Garrison, N. Y. New York City: Grand Central Terminal.

Annual Subscription, \$6.00. Single Copies, 15 Cts. SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

Entered as second-class matter July 18, 1923, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.

PRESENT STATUS OF INVESTIGA-TIONS CONCERNING ANTIQUITY OF MAN IN CALIFORNIA¹

THE fact that archeologists and historians have been interested in the problem of the antiquity of man in California for the past 60 years is due in a considerable measure to the peculiarity of the problem in that region. The California area offers exceptional opportunity for a great variety of studies in archeology and anthropology, and especially for those dependent upon our knowledge of geological processes of the present and of the period immediately preceding. The fact that the coast region of California seems to have been in almost continuous movement throughout the later geological periods means that there has been continuous erosion accompanied by continuous deposition, giving us at the same time a record of the processes of erosion and deposition and of the life of the region in this period.

It has been realized from the beginning of our studies on the Pacific coast that satisfactory conclusions regarding the antiquity of man in California can not be reached within any narrow time limits, and that no single mode of attack may be considered sufficient in itself. At the initiation of the studies conducted at the University of California four lines of investigation were laid down: (1) Tracing man back in time through an examination of the great shell mounds of the coast region, the most critical study being given to the lowest or earliest deposits. In this work opportunity was offered for going from the known culture of the uppermost layers of the mounds back to a period in which conditions may have been quite different from those governing the life of the Indians of the last centuries. (2) The thorough investigation of all available cave deposits. whether Recent or Pleistocene, with particular reference to possible human occupation. (3) A careful study of those Pleistocene and Recent land, stream. lake and marine formations in which the occurrence of human remains or relics appears possible. This comprised a study of many Pleistocene formations and the collection in them of all obtainable fossil remains. (4) A careful review of all evidence relating to the reputed occurrence of implements or human remains in the older gold-bearing gravels or other ancient deposits of a similar nature in California.

¹Read before the National Academy of Sciences, Washington, D. C., April 29, 1924.

After practically 25 years' research on the antiquity of man in California from the point of view of the archeologist, anthropologist, paleontologist and geologist, it is clear that the problem is not only extraordinarily interesting but is exceedingly complicated. There are many evidences in caves, in alluvial and stream deposits, in the shell mounds and in asphalt deposits, indicating the occurrence of man on the Pacific Coast for a period which must in all probability be measured in terms of many thousands of years. Up to the present time all the human remains discovered are of what have been recognized as modern types. So far as has been determined they do not differ materially in their characteristics from the various races included within the group of the American Indians of to-day. The implements and other evidences of man's handiwork are also in general of modern appearance and different from the ancient types known from the Pleistocene deposits of Europe.

Up to the present time no definite evidence has been secured in California of the occurrence of human remains in a geological formation older than the present or Recent period. Although there are occurrences which have suggested the possibility of man's existence in the Pleistocene or the period immediately preceding the present, most careful investigation has not up to the present time given us definite evidence indicating that either human remains or implements produced through the work of man have been recovered from deposits antedating the present geological period.

Though the geological evidence before us does not give for the Pacific Coast of America any clear proof of man's presence in the Pleistocene, during which he is known to have been distributed widely over the Old World, this must not be interpreted to mean that the human race has not been present in that region for many thousands of years. A time measured in thousands or perhaps tens of thousands of years would naturally be required for the development of such divergence as we know among the physical types of America, and would also seem to be required for origin of the differences in culture and in language so abundantly represented among the aboriginal peoples of the western hemisphere. The geological evidences of occurrence of man in California permit our considering the possibility of his presence there for at least as long a time as seems required by the evidence of his physical and cultural differentiation on this continent.

JOHN C. MERRIAM

CARNEGIE INSTITUTION OF WASHINGTON, WASHINGTON, D. C.

A RECENT DISCOVERY OF ANCIENT HUMAN REMAINS IN LOS ANGELES, CALIFORNIA¹

INTRODUCTION

IN March, 1924, the Thomas Haverty Company. in cutting a trench preparatory to laying Section 11 of the north outfall sewer for the city of Los Angeles, encountered human remains at a depth of approximately 19 feet. Through the interest of Mr. George Hess, vice-president of the Haverty Company, the human remains were submitted to Dr. William Alanson Bryan, director of the Los Angeles Museum of History, Science and Art. The museum has appreciated greatly the courteous service rendered by the officials of the Haverty Company in the excavation of the locality where the human bones were found. Under the supervision of Dr. Bryan, and with an appropriation by the Board of Supervisors of Los Angeles County, the investigations are being continued in the vicinity of the original locality.

LOCATION AND GENERAL FEATURES OF THE REGION OF THE DISCOVERY

The locality is situated approximately one third of a mile west of the Angeles Mesa Drive and 300 yards south of the tracks of the Pacific Electric Air Line, on the Spanish land grant called Paso de la Tijera (Santa Monica Quadrangle, U. S. G. S.), between Los Angeles and Culver City. The Pleistocene asphalt deposits of Rancho La Brea lie three miles to the north and slightly to the west of this locality.

The region in which the human remains were found is a relatively flat or slightly undulating country bordered on the southwest side by the Baldwin Hills. These hills rise rather abruptly along their northeast front to a height of over 500 feet. The Baldwin Hills are presumably traversed by a fault (Inglewood Fault) extending in a north-west-southeast direction and emerging from the hills near their western border. The valley or plain area along the northeast front of the Baldwin Hills and in the immediate vicinity of the locality where the human remains were found has an elevation of 100 to 125 feet above sea level, and is drained by Ballona This stream does not possess much of a Creek. gradient and within very recent times (topographic survey 1893) marsh lands and ponds featured its course in the northern portion of the land grant Paso de la Tijera and in the southern portion of the land grant Las Cienegas. To the north of this marsh area the land surface becomes gradually higher toward the base of the Santa Monica Mountains.

¹ Read at the meeting of the National Academy of Sciences, Washington, D. C., April 29, 1924.