Book Reviews

Tihuanacu: the cradle of American man. Arthur Posnansky. New York: J. J. Augustin, 1945. Vol. I: Pp. viii + 158; Vol. II: Pp. viii + 246. (Illustrated; bound in one volume; text in English and Spanish.) \$30.00.

In this large, expensive, and beautiful work, which includes two of three projected volumes, Prof. Posnansky, Bolivia's leading archaeologist, summarizes a lifetime of research in the rich archaeological remains of the Bolivian altiplano. The work contains many excellent descriptions of the sites and monuments, but it is mainly of interest in illustrating how a scientist, working alone and without reference to his colleagues, arrives at results wholly at variance with theirs. Scientists may, of course, make outstanding contributions by courageously defying tradition; but they can rarely afford to ignore established methodology, accumulated data, and other gains of the past.

Ignoring his colleagues, except to hurl an occasion invective at them, Prof. Posnansky erects a theoretical structure that is entirely his own. It is of interest to compare it with that of his fellow archaeologists.

Tihuanacu (usually spelled Tiahuanaco) is an archaeological site on the Bolivian altiplano famous for its monolithic gateways, carved stone blocks, idols, and art style. Archaeologists have found the art style widely spread in the Andes, and, by means of stratigraphy and other standard archaeological methods, they have dated this phase of culture at the close of the first millennium A.D. It is generally regarded as a comparatively late manifestation of an advanced, prehistoric Andean civilization which developed through several distinctive periods over some 2,000 years.

Prof. Posnansky, like so many local archaeologists who do not build on the work of their colleagues, sees his Bolivian Tihuanacu remains as the product of autochthonous development and as the source of all American civilization. He postulates five local periods. During the first, the superior Kholla, who seem to be identified with the modern Aymara, subjugated the inferior, cavedwelling, Arawak-speaking natives. The racist dogma and the identification of the language of these early people are favorite themes of the author. After a glacial period, which is correlated with that of other parts of the world, Periods 2 and 3 brought the flowering of Tihuanacu, some 10,000 to 15,000 years ago. Tihuanacu's decline was followed by Period 4, when the polygonal stone work at Cuzo was made. (This stone work is now identified as Inca.) In characterizing Period 5 by the "monumental adobe" structures, which are found mainly on the coast, the author seems to disregard the fact that his colleagues find that such structures date from all periods of prehistoric Peru. Period 6 is Incathat is, of the historic, Quechua-speaking peoples.

Failing to use established ceramic sequences, Posnansky based his reconstruction on a series of assumptions which have not been generally accepted: that the so-called

Arawak cave dwellers are oldest because their skulls are fossilized; that the Tihuanacu culture flourished during Periods 2 and 3 because the altiplano was then nearer sea level and had a more benign climate; that this culture declined, because of uplifts, vulcanism, increased cold, recession of Lake Titicaca, and a consequent decrease of population. Whereas other archaeologists prefer a relative chronology for their periods and hazard an absolute chronology only by general comparisons with such areas as the Maya, who erected dated monuments, Prof. Posnansky bases his on assumed glacial chronology, on an assumed uplift of the Andes and changes in the level of Lake Titicaca, and on a variety of astronomic calculations which he infers from the arrangement of temples, monoliths, and other structures.

That Tihuanacu was the cradle of American civilization Posnansky deduces from a series of design elements, or "signs," such as "staircase" (stepped element), "star," "condor," "puma," and the like, which he identifies at Tihuanacu and assumes to have been spread by migrating Khollas to wherever such elements are found throughout the Americas, even as far away as the Hopi of Arizona. This postulated origin and spread of the Tihuanacu civilization is accomplished with a complete disregard of the tremendous amount of work done by competent archaeologists throughout the Americas.

Leaving aside its interpretative features, Prof. Posnansky's volumes are a magnificent factual contribution, containing the most important corpus of data yet available on the monolithic doorways, steps, walls, canals, idols, and other features of this interesting and important culture.

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Bibliographia araneorum: analyse méthodique de toute la littérature araneologique jusqu'en 1939. (Tome I.) Pierre Bonnet. Toulouse: Frères Douladoure, 1945. Pp. xvii + 832. 3,500 fr.

This is an attempt to make a complete survey of all scientific literature dealing with one group of animals, the spiders, and serves as an example of the type of comprehensive bibliography that all fields could use if such were available. Prof. Bonnet has assembled over 8,000 titles, arranged alphabetically by authors, and then has made a thorough analysis and grouping of these papers by every sort of heading that a student might need—general heads such as usefulness to humans, technical methods, and phylogenetic relations; anatomy and physiology, such as coloration, glands, and heart movements; ethology, including longevity, catalepsy, courting habits, etc.; geographic distribution by states, departments, counties, islands, etc.; and paleontology.

Included is a brief summary of the outstanding work done in arachnology from the time of Aristotle to the