interpret as direct excitation of nerve fibers. This does not prove that an electrical disturbance *localized in the retina,* like a nerve action current, might not stimulate the photosensory mechanism directly.

It is worth noting that the phenomena reported by Nodon[3] of photographic effects from organic substances, which he interprets as due to "radiations" and which Mrs. Ladd-Franklin cites in support of her theory, have long been familiar. The subject has been reviewed by Keenan[4] and the weight of evidence points to the evolution of traces of hydrogen peroxide as the explanation.

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THE ANTIQUITY OF THE DEPOSITS IN JACOBS CAVERN

NELS C. NELSON in SCIENCE, for September 16, 1927, criticizes the article by me on "The Antiquity of the Deposits in Jacobs Cavern," printed in *Am. Mus. Nat. Hist.,* Vol. XIX, Part VI.

Admittedly *not* found in undisturbed strata, the Jacobs Cavern carved "Mastodon" bone must stand or fall upon its own merits. X-ray photographs and specific gravity determinations show this bone to be mineralized; inspection shows that mineralization occurred *after* the carving. Comparative photographs under six definite wave-lengths of light indicate that the bone is old and likewise the carving. Chemical and physical analyses (by experts in these fields) of samples taken in the presence of Mr. Nelson (and their position recorded photographically) show the presence of a second, lower, inhabited layer not examined by Mr. Nelson. The perforation of the carved bone was from both sides; these two holes taper and meet at a slight angle—the shortness and taper of these holes are characteristic of stone drills. The head of the elk-like effigy on the reverse apparently takes advantage of a crack, while the wavy marks on the same side ignore several cracks.

Against these definite data stands the sincere guess of an eminent archeologist.

VERNON C. ALLISON

THE MISPRONUNCIATION OF "DATA"

APROPOS of the controversy concerning the singular and plural usage of "data," may attention be called to the fact that this word is mispronounced much more commonly and with less justification than it is incorrectly used in writings. Probably no other word in the vocabulary of the average scientist is mispronounced more generally. Merely as an example of this fact, the incident mentioned below is noted from the last annual meeting of the Pacific Division of the American Association for the Advancement of Science. The pronunciations "dāta" and "dăta" were used by two different persons on the program at one of the general meetings. In a meeting of the section on entomology one speaker pronounced the word "dāta" another pronounced it "dăta" and a third said "däta." The leading dictionaries including Funk & Wagnall's New Standard and Webster's New International give only one pronunciation, namely, dāta.

In some respects this matter may seem too trivial to be mentioned. However, the student in high school, college and university, and Mr. Average Citizen have come to regard the scientist as one who is peculiarly exact and correct, and this ideal is not enhanced when scientists, in classroom instruction and in public addresses, are careless to the extent of mispronouncing a word that is used so commonly by scientists in general.

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[3] Nodon, A., 1924. *Comptes Rendus,* clxxviii, 1101.

[4] Keenan, G. L., 1926. *Chemical Reviews,* iii, 95.

SCIENTIFIC BOOKS

Les problèmes de la physiologie normale et pathologique de l'os. R. Leriche et A. Policard. Masson et Cie, Paris, 1927.

THIS book of 229 pages, including 23 text figures and an extensive bibliography of 219 titles, is dedicated to the memory of Leopold Ollier, "originator of modern bone physiology." The book represents the fruit of a collaboration extending over a period of ten years. It assembles in a convenient and logical unit much of what had been scattered under separate and joint authorship through various journals since 1909. A new theory of osteogenesis is here developed and firmly based on a large body of data, histological, experimental and radiographic. This theory furnishes a consistent interpretative key for the explanation of certain apparently contradictory facts in normal bone development and regeneration. It explains, moreover, diverse and obscure pathologic condition of bone formation. It reconciles the paradoxical aspects of the current view of osteogenesis which regards the so-called osteoblast, when operating alone, as a bone builder, and when fused in masses, as a bone destroyer or osteoclast.

Osteogenesis is interpreted in essence as a condition of osseous metaplasia of fibrous connective tissue. This is shown to occur in four stages, whether the connective tissue be embryonal, or mature fibrous: a, edematous infiltration; b, multiplication of fibrils; c, conversion of the interstitial fluid into a gelatinous