Together the three above scientists and the writer dug out anew the spot where the skeleton was found. There we secured seven fragments still in place which are additional parts of the original fossil materials in my laboratory. We thus authenticated the exact site of the find which had fortunately been documented by a diary entry written on the spot by the road boss on the day of the discovery. Even in this preliminary announcement, I must note the cooperative and intelligent interest, in the matter of this find, of the following gentlemen connected with the Minnesota State Highway Commission, namely Messrs. C. M. Babcock, P. F. Stary, Clarence Wright and C. A. Steffen. In the face of the state program for extensive road building, we had written asking to be informed of such possible finds of ancient man as might be exposed by extensive earth cuts made during road work. The recovery, preservation and initial information of the subject of this announcement is one of the fortunate results of this state-wide cooperation.

Our extinct glacial lake had existed earlier than most of the extensive world-famous Glacial Lake Agassiz. It now seems probable that the extinct lake of our immediate interest may have been contemporaneous with an early stage of Glacial Lake Agassiz—*i.e.*, with Agassiz when it was only about 120 miles long, north and south, and only some 40 to 50 miles wide. Its eastern border was then confined by glacial ice or by the Leaf Hills Moraine (also close within which ice or moraine our lesser lake probably then existed farther to the east). At the north, Agassiz was then confined by glacial ice which, as it melted in retreat, left the Fergus Falls Moraine and the Leaf Hills Moraine on the north and northwest. Thus as early as 1895, or 37 years ago, Dr. Warren Upham had published authoritative data which will be of value in the geological dating of our Pleistocene skeleton in his book, "The Glacial Lake Agassiz," volume 25 of the United States Geological Survey. In its early phases of existence, Glacial Lake Agassiz drained southward through the present Minnesota River, starting near what is now Lake Traverse. That early outlet of Agassiz was several miles southwest of and a few hundred feet lower than the lake beneath whose ancient silt the skeleton was discovered. The varved silt bed covers points in the near-by topography at least fifty feet higher than the point where the skeleton was found and where it had originally been naturally deposited under the undisturbed varved silt. The lake had been filled with silt in the form of "rock flour" washed out from beneath the near-by glacier. The fine silt had settled seasonally in thin even layers. To-day the varves still lie horizontally just as they had been deposited in the glacial lake below the level of wave action.

The skeleton recovered is of a youth under twenty years of age. The skull is of a primitive *Homo* who, of course, must have been of an American ancestral type. The nasal aperture has distinctly simian sill and borders. There is no projecting nasal spine. The teeth are unusually large. There is a marked degree of prognathism. The sagittal suture is extremely simple. So far as reconstruction and measurements have progressed, the type of man revealed is suggestively more proto-Eskimo than proto-Indian. The body apparently had originally all been in the lake in the spot where the skeleton was so largely recovered. With exception of the bones of hands and feet, the entire body is well represented in the parts we now possess.

It is interesting also that artifacts were found with the skeleton, including a crude dagger of antler and a large pendant of shell—both of which had been attached to and worn by the youth, as each has a hole for a leash.

Complete scientific data will later be presented on this Pleistocene man—which, for purposes of identification, we name "the Minnesota man."

ALBERT ERNEST JENKS
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THE LITERATURE OF TAXONOMY

IN a paper entitled "A New View-Point in Paleontology,"[1] Dr. E. M. Kindle outlines the difficulties which confront the paleontologist who attempts to use—or find—the scattered literature of taxonomy. As a partial remedy for the situation, he proposes the republication, upon standardized cards, of original descriptions and figures, with such supplementary material as is essential to their use. This card catalogue is to be prepared first for Devonian invertebrates of North America; upon it, fourteen or fifteen paleontologists already are working, or have agreed to work.

Being members of these fifteen, with copy for more than eight hundred cards describing sponges, stromatoporoids and sponges already in our files, we recognize the value of Dr. Kindle's suggestion. Probably it offers greater aid to working paleontologists—especially those in institutions whose libraries are small and poorly supported—than does any other he could have made.

Yet it seems to us that such a catalogue solves only present and past problems. Unless it is accompanied by a plan for future publication, also upon standardized cards, the present situation is bound to be repeated as new species and subspecies are described.

Nor does it seem enough to provide for additions to the catalogue, in the form of cards reproducing

[1] Trans. Royal Soc. Canada, 25, sec. 4: 21–27, 1931.

future source material. That would mean that the expense of publication must be borne twice: once by the journal or institution printing the author's paper, and once by the institution sponsoring the catalogue. One of these costs would be waste—and the money, if spent, should go into productive publication.

We suggest, therefore, that while efforts are being made upon the catalogue, as originally conceived by Dr. Kindle, and sponsored by the Paleontological Society, others be devoted to the problem of providing original publication, upon cards, of future original paleontologic descriptions and of significant revisionary material. This plan will demand, of course, funds for printing and for maintaining a central office where cards may be edited, published and sold; as well as international cooperation among contributing agencies and authors.

We do not minimize these problems of securing support, but the rewards to be achieved command attention. Instead of a future of widely scattered descriptions, periodically assembled and republished upon cards, the paleontologist would have those cards, bearing initial descriptions and figures, and available from a central office. Single species, instead of being buried in papers on stratigraphy, areal or economic geology, would appear upon individual cards, each under its own name and readily discoverable. Authors need not wait for the completion of long papers—nor will they resort to the almost useless "preliminary description," often published to establish priority rather than to enlighten its users. By the use of cards, one species may be published as readily as a dozen, and as readily found by other workers. The fear that a description may become "buried" will haunt neither its author nor the subsequent student, who will find the sources that he needs for study available without extended search, at a price which (if necessary) he himself can pay.

MILDRED ADAMS FENTON
CARROLL LANE FENTON

WEST LIBERTY, IOWA

AN APPEAL TO AMERICAN BIOCHEMISTS

J. L. W. THUDICHUM, pupil of Liebig, has been recognized for many years as one of the great biochemists. His splendid contributions in the field of lipoid chemistry (chemistry of brain tissue) are well known. His contributions in pigment biochemistry, not as well recognized, were also fundamental. He was the pioneer investigator of the pigments, named by him "luteins," now known as carotinoids. He also contributed outstanding papers upon the urinary pigments, bile pigments and hematoporphyrin, which he recognized as appearing in other sources besides the blood. The amino-acid "norleucin" was originally discovered by Thudichum. A number of other substances of biochemical interest began their existence as entities in the laboratory of this unusual worker, although they were rediscovered and renamed by later investigators. In the interest of science Thudichum wrote numerous texts, all replete with profound historical introductions, upon many divergent topics.

Thudichum also, somehow, found time to carry on a medical practice, using a good deal of his income to purchase platinum utensils, etc., for carrying on his researches, many of which were conducted in his private laboratory.

An interchange of communications with Dr. Otto Rosenheim (London), who for many years has been collecting data upon Thudichum's life, has brought the information that the five daughters of Thudichum are in dire financial need. The members of the American Society of Biological Chemists and others who care to do so may contribute towards a fund for them. Contributions, however small, will be highly appreciated. Checks may be mailed to Dr. David L. Drabkin, Medical School of the University of Pennsylvania, who will transmit the collected fund as a contribution of American biochemists to the parties abroad.

RUSSELL H. CHITTENDEN
PHOEBUS A. LEVENE
LAFAYETTE B. MENDEL

CONFERENCE ON ASTROPHOTOGRAPHIC PROBLEMS

A CONFERENCE on Astrophotographic Problems was held at the Harvard Observatory on March 23, on the occasion of the dedication of the new astrophotographic building. The building contains the large collection of photographic plates, the library of the observatory and many offices.

The following are abstracts of the papers presented:

The Harvard collection of astronomical photographs: ANNIE J. CANNON. The history of astronomical photography at the Harvard Observatory dates from 1850, when the first photograph of a star ever taken was made here with the 15-inch equatorial telescope. Since that time the collection of plates has grown steadily, and it now contains about 400,000 glass negatives, of sizes from 4 x 5 inches to 14 x 17 inches. The earliest plates, obtained in 1850–1852, were daguerreotypes taken under