

## Book Reviews

**Ancient Population of Siberia and Its Cultures.** A. P. Okladnikov. Russian translation series of the Peabody Museum of Archaeology and Ethnology, Harvard University, vol. 1, No. 1. Peabody Museum, Cambridge, Mass., 1959. vii + 96 pp. Illus. \$3.50.

The quantity and quality of Soviet scientific publication is by now too well known to require comment; nor is it necessary to belabor the point that a serious handicap is imposed on Western scholarship by unfamiliarity with this often inaccessible, unreadable corpus of data. The inauguration of a new Russian translation series is, therefore, a welcome event, especially in a still inadequately served field such as anthropology. It is true that we have had syntheses by Western scholars, occasional short translations in journals such as *American Antiquity*, and bibliographic and progress coverage by the COWA publications and by *Asian Perspectives*—all these being primarily archaeological. But there was still need for complete, unabridged translations of larger works—translations which would convey the full flavor of the Russian original.

The present series is an important step in this direction, so far as physical anthropology and archeology are concerned. Conceived and edited by Henry Field, the series is, in effect, a continuation of his earlier (1935–46) program of brief reports on Soviet anthropological work. Both editor and publisher are to be congratulated for offering this service to the Western scientific world. I might add that the format chosen is satisfactory as well as practical; that the illustrations are well reproduced; and that the maps have been redrawn for the English reader.

The choice of a synthesis of Siberian prehistory for the initial number was logical and commendable, for this topic is perhaps the one of widest inter-

est to the American scientific audience. The work chosen for translation was probably the best selection currently available, since it presents, in 65 pages, an over-all survey of the major prehistoric cultures of Siberia, from the earliest traces of man to approximately A.D. 1000. Despite the title, the treatment of ancient populations is only incidental. The author, a distinguished Soviet archeologist and scholar, is the leading authority on the prehistory of eastern Siberia; in fact, we owe the greater part of our knowledge of this vast and difficult region to his pioneer field work of the last 30 years. Naturally, his own views and interpretations are reflected in this part of the coverage, and informed readers may find themselves in disagreement on certain points. For the rest of Siberia, the author follows the most authoritative opinion of the moment among Soviet archeological workers.

Quite understandably, the treatment of so broad and complex a subject can only be superficial in the present instance, but this superficiality is aggravated by the popular style of the presentation. Still, the book will provide a useful background for the beginner and convey to the uninitiated scholar some idea of how much is now known about this supposedly blank spot on the map of human history. However, the complete lack of documentation—except for a brief list of suggested readings—severely limits the value of this work for the serious student, who would like, above all, a guide to the literature for further research. In this and other respects it is, therefore, no substitute for critical analyses of the subject by Western scholars, such as are regularly chronicled in the *COWA Bibliography for Northern Asia* (Council for Old World Archaeology, 11 Divinity Avenue, Cambridge, Mass.) or presented in more detail in *Asian Perspectives*, the bulletin of the Far Eastern Prehis-

tory Association (Department of Anthropology, University of Arizona, Tucson).

These drawbacks are in no way a reflection on the author. The work was designed as a chapter in a popular handbook written for a general audience, and it admirably fulfilled that purpose. The editors have done Okladnikov a disservice in not making this clear, and in offering this volume to their readers, in effect, as an example of the author's scientific writings or of Soviet archeological scholarship in general—which it is not. Moreover, appropriate editorial annotation would have materially enhanced the value of the translation. The Western reader who is unfamiliar with the subject deserves this amount of guidance to avoid misconceptions; the scholar, capable of reading the book critically, would have no occasion to utilize an elementary work of this nature. For instance, the equation in the text of the Mousterian stage with the Riss glaciation will puzzle most readers or lead them to question the reliability of Soviet writings. A footnote by the editor could easily have cleared up this point. As it is, the only two editorial notes in the entire translation (contributed, we should note, by an outsider) relate to trivial points of Sinological scholarship. Such minute accuracy in these two cases leads the unsuspecting reader to assume that the remainder of the text has been subjected to equally careful screening—and it palpably has not. All in all, it is not too clear just what audience will be served by such a series in its present unannotated form.

It is also deplorable that without explanation, certain Russian terms are left untranslated (for example, *Chukot*, *chum*, *pisnitsa*), for they will be meaningless to anyone likely to read this publication. In the text the native names of Siberian tribes should have been accompanied by the equivalents familiar to Western students. The translation itself is not invariably above criticism: the meaning of certain passages is not clear unless one has recourse to the Russian original, and there are examples of poor choice of words (*pamiatnik* should not be rigidly rendered as "monument" in contexts where this is ridiculous, and to consistently refer to a blade as a "plate" destroys the meaning completely). The statement at the head of the bibliography makes no sense whatsoever and is evidently the result of

jumbling the translator's manuscript. There are careless errors in the rendition of proper names—for example, the famous site at Uolba Lake is variously rendered as Wolba and Yolba. And, lastly, there are an unnecessary number of typographical errors, despite the fact that, as the introduction takes pains to assure us, the typist is a Harvard graduate. I was disappointed to find on the first three pages of the text seven typographical errors, three errors of transcription, three instances of poor or unintelligible translation, and one obvious error in the Russian original faithfully reproduced (the Irtysh River is not by any stretch of the imagination in northwestern Kazakhstan).

All these shortcomings can surely be attributed to overhasty editing of the translation. May we therefore plead for just a little more care and effort in preparing the forthcoming publications on the Caucasus and Central Asia; such care and effort would immeasurably increase the value of this decidedly worth-while project.

CHESTER S. CHARD  
Department of Anthropology,  
University of Wisconsin

**The Social History of Lighting.** William T. O'Dea. Macmillan, New York, 1958. xiii + 254 pp. Illus. \$8.50.

Not since Henri d'Allemagne wrote *Histoire du Luminaire* in 1891 has the subject of artificial lighting been treated historically with so much care and authority as William O'Dea treats it here. Written with style and wit, having an almost anthropological perspective, and packed with well-documented information, this book will serve equally the historian of science and culture, the antiquarian, or the mere browser who enjoys pleasant reading in unusual by-ways.

O'Dea avoids the developmental or evolutionary approach to the history of lighting and also steers clear of the purely chronological approach. Instead, he divides his chapters under functional heading, according to the principal ways in which light has played a part in social history: "Light for the home," "Light for travel," "Light for work," "Light in worship and superstition," for example. The last two chapters deal with "The materials of light" and "Getting a light."

In the beginning chapter, entitled

"Bad light," we learn of the nocturnal difficulties that were endured by every one before 1800. When Boswell inadvertently snuffed out his candle while writing late at night, he had to wait for the night watchman and then call out the window for a light, lest in groping about for a tinder box he should disturb his landlord and be shot as a burglar. When tallow candles were the only means of stage lighting, "it was nothing for a snuff boy to come before the audience in the middle of the most emotional scene in order to tend a smoking candle."

The text is enlivened and documented not only by bright literary allusions but also by a splendidly chosen series of plates reproducing paintings, prints, and drawings that depict lighting devices in use. There are also many line drawings interspersed through the text.

One is constantly surprised by the encyclopedic coverage of the subject matter and by the broad frame of reference which surrounds it. The revolutionary importance of Ami Argand's combined invention of the tubular air-draft burner and the glass chimney in 1783 is reiterated here. But for the first time in a general history of lighting, it is shown how the balloon ascension of Argand's friends, the Montgolfier brothers, so completely overshadowed the new lamp that Argand was unable to attract enough attention to the lamp to cause its development. Only the unscrupulous Quinquet seems to have been aware of its significance and to have used the knowledge for his own ends. The point is gracefully stressed by quoting Dr. Johnson's remark to Mrs. Thrale: "You will observe, Madam, that the balloon engages all mankind."

We learn that Menier, the French chocolate manufacturer, lit his factories with arc lights in 1875, that Pullman cars were first lighted by kerosene lamps in 1874, and that the Duke of Brunswick illuminated a garden fete in 1741 with 5000, or more, float-wick oil lamps. We are told that Hooke in the 17th century used a spherical water condenser with sunshine as the source of light for his microscope, and that a scheme to illuminate the roof of the Capitol in Washington, D. C., with arc lights in 1884 was vetoed after a trial period. An entire chapter is devoted to the history of lighthouses; this chapter begins with the Pharos of Alexandria, touches on the coal-burning beacons of 17th- and 18th-century England,

and ends with the electrification of these houses, which was started as early as 1858.

It is, perhaps, a commentary on the inadequacy of published studies on American lighting that O'Dea devotes little space to it. Little is said of the important role that whale oil played in early 19th-century lighting in America, and one wishes that the oft-repeated story which attributes to Franklin the invention of the two-tube whale-oil burner had been either avoided or substantiated.

The single, mechanical improvement in the organization of the book that I can suggest is to include plate numbers on the plates, since they are referred to by number in the text. For a work so thorough and so well-documented, however, these are merely quibbles. It is an excellent book, much the best that has yet been done on this subject.

C. MALCOM WATKINS  
U.S. National Museum,  
Washington, D.C.

**Advances in Chemical Physics.** vol. 2. I. Prigogine, Ed. Interscience, New York, 1959. ix + 412 pp. Illus. \$11.50.

This second volume of the series maintains the high standards established by volume 1 [*Science* **129**, 833 (1959)]. Although many topics are treated, emphasis is placed on new developments in the theoretical evaluation of molecular electronic energies and on properties determined by electron dynamics. The extensive review of the many-electron problem in quantum mechanics is not only useful but also timely, in view of the great effort currently being applied to this problem.

The articles are rather uniformly of a review character, with some mention of important unsolved problems and some speculation on the nature of possible future developments.

The contents convey a reasonably accurate impression of what this volume has to offer. "Clathrate solutions" (57 pages), J. H. van der Waals and J. C. Platteeuw; "Inter- and intramolecular forces and molecular polarizability" (25 pages), Kenneth S. Pitzer; "The solubility of solids in compressed gases" (34 pages), J. S. Rowlinson and M. J. Richardson; "Thermodynamics of metallic solutions" (28 pages), R. A. Oriani; "Recent advances in polymer