

Russian Prehistory

Archaeology in the USSR. A. L. Mongait. Translated and adapted by M. W. Thompson. Penguin Books, Baltimore, Md., 1961. 320 pp. Illus. \$1.45.

The Russian original of this work is authoritative both as a document of what Soviet archeology is like and as a description of its findings down to the early 1950's. It has been reviewed elsewhere [*American Anthropologist* 59, No. 1, 183 (1957)], and critical comments by the translator are included in the Pelican edition. Mongait's volume is an excellent synthesis. Its principal faults are nationalistic bias and bombast and an almost total lack of concern with concepts and methods (as opposed to techniques). This latter failure is frequent in Soviet archeological writings and probably stems from a desire to avoid "formalism"—that is, a preoccupation with problems seemingly far removed from the ultimate objective, in this case "the proper understanding of historical development."

Thompson's translation, while not always elegant or even idiomatic, has the great merit of always being clear in meaning. The translator's foreword (pages 15–31) explains the conception of the book, provides environmental and ethnographic information on the Soviet Union, and outlines the growth of archeology in Russia since prerevolutionary times. Parenthetical remarks by the translator within the text are also, for the most part, helpful, though a few seem trivial and unnecessary. In dealing with the eternal and vexing problem of finding the correct nominatives of Russian proper names (often present in the original only in declined or adjectival forms), Thompson did not always look hard enough. In addition, some misrenderings—such as Kazakhstan, Khvoika, Varakhsh, and Saltov (for Kazakhstan, Khvoiko, Varakhsha, and Saltovo)—can be explained only by carelessness, since the correct unmodified forms occur in the Russian original.

As stated in Thompson's foreword, this is not a complete translation. Omissions include politically motivated passages, enough of which have been retained, however, to preserve the flavor of the original. In addition, Thompson also chose to drop a fair number of specific mentions of sites, individuals, and publications, "to reduce the burden of foreign names." This decision does

not consider the fact that the reader always has the choice of ignoring information when it is provided, but not of supplying it when it is omitted. In the present case, this sort of trimming seems a poor move, because the original is already a rather simplified presentation of a vast subject.

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Policy Questions

Structure of Higher Education. William O. Penrose. Van Keulen, The Hague, Netherlands, 1961. 208 pp.

Because they fulfill new functions and have accepted fresh responsibilities, universities are everywhere changing very quickly. They are also growing at a fantastic rate: it seems possible that, at least in the more advanced countries, tertiary education may be universalized and nationalized during the next 50 years, just as secondary education has been during the last 50. As a consequence of rapid evolution, perplexing problems of policy arise, some of which can be usefully elucidated by comparative analysis. While it is unlikely that the educational practices or institutions of any country can be simply transplanted into another, confrontation of two or more systems may help us to identify, isolate, and understand the forces which shape policy as well as the historical and social factors which have to be taken into account by policy makers.

In his new book, William Penrose, dean of the School of Education at the University of Delaware, describes and analyzes the organization and administration of higher education in the United States and the Netherlands. He begins by dealing, in a general way, with the United States: listing the aims and purposes of education; describing the administrative and organizational structure of typical universities as well as the powers and duties of officers such as the president; considering the legal status of institutions of higher education; and so forth. Then comes a very interesting and informative chapter on "Super-institutional" controls: the influence of the state and of other official and nonofficial bodies upon public and nonpublic institutions. Penrose then discusses governing boards; their nature, powers, and functions; selection and appointment of staff; committee organiza-

tions; the role of professional administrators; academic structure; and other related topics. From all this emerges a clear and detailed picture of the ways in which American universities and colleges are run and organized. One begins to see who, in fact, makes the important decisions and how these key individuals are themselves controlled. One understands to what kinds of pressures the institutions respond and why institutions seem to be so cautious and conservative in some respects, so bold and progressive in others.

The 40 pages which Penrose devotes to the Netherlands seems to me much less interesting and valuable. He, himself, gives the explanation. He worked with an official of the Dutch government and relied entirely upon interviews with administrative and academic leaders. It is noteworthy that, while many American books and papers are listed, there is not a single reference to any material available in the Dutch language. As a result, we have, in the author's own words, "a description, analysis and tentative evaluation of higher education in the Netherlands which may seem less scholarly, in the usual sense, than the section on the United States." With these reservations, it can be readily admitted that the careful "studies of selected institutions," which cover the administrative and organizational structure of Leyden (State), Delft (Technological), Amsterdam (Municipal), Amsterdam (Reformed Church), and Rotterdam (Economics), are an exceedingly useful and exact summary of the existing situation.

All this is valuable. In addition, Penrose's statements of general principles of administration as well as his suggestions of topics where research is needed are helpful. Nevertheless, three criticisms of fundamental importance must be urged. First, the analysis seems somewhat superficial. Administrative and organizational forms have not usually been designed simply to serve present-day purposes and aims, especially not those explicitly stated in documents. They are usually adopted simply because no one could think of anything new, or else they are invented because they seem to be the only ones that can possibly deal with the conflicts of interest, with the social and individual problems existing at the time of their adoption. We inherit them from the past, and they are not always well adapted to the problems which arise at the present. In other words, I am convinced that the analysis of university

administration and organization must rest upon solid and detailed historical studies. If we are to understand why things are as they are, historical analysis is essential, and for this a brief historical account is a quite insufficient substitute. We must show how and why the past is important and why it is still with us. Second, the analysis of a social institution, such as a university, must refer very closely to the sociological structure of a country (the class structure) as well as to its economic needs in relation to its financial capacity to bear the cost of extended tertiary education. Here sociological and historical analyses complement each other. Third, administrative practices and structure should not be evaluated or measured against general criteria such as those listed by Penrose, but rather by considering the ways in which they make it possible to handle specific problems. A few examples of the latter may be mentioned: Are students being admitted to tertiary education in numbers sufficient to satisfy needs? Is talent being wasted? Are children of poor parents being kept out? Are students being allocated in the best way among institutions and faculties? Are the staff given sufficient freedom to apportion their time wisely among research, committee work, and teaching? Are promising students given sufficient stimulus? Are funds sufficient to match needs? The question that has to be asked in each case is: In what ways do administrative and organizational forms help or hinder the solution of problems of this kind? Such criteria are more significant than those which concern chiefly general issues like the training of elites or whether there exists a unified and comprehensive authority within an institution. These, too, have their importance, of course, but at another and less practical level.

These criticisms should not dissuade any one from studying Penrose's book, so full of wisdom and so evidently the fruit of ripe experience. We have reason to be grateful for what is, in a sense, a pioneer effort which should act as a stimulus to others. We need many enquiries of this kind, dealing with the tertiary systems both of industrialized and of underdeveloped countries. All those who are concerned with the formation and formulation of university policy owe a debt of gratitude to Penrose for the careful and painstaking work he has done.

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Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Arctic Institute of North America. **Technical Paper**, No. 6, "The medusae of the Chukchi and Beaufort seas of the Arctic Ocean, including the description of a new species of Eucodonium (Hydrozoa: Anthomedusae). Cadet Hand and Lai Bing Kan. The Institute, Montreal, Canada, 1961. 23 pp. Illus.

Bernice P. Bishop Museum. **Annual Report for 1960**, "Work half done," Alexander Spoehr, 30 pp. **Subsistence Agriculture in Polynesia and Micronesia**, Bull. 223, Jacques Barrau, 94 pp., \$2.25. Bernice P. Bishop Museum Press, Honolulu, Hawaii, 1961.

California Academy of Sciences. **Occasional Papers**, No. 30, "The immature stages of *Callomyia*, with the description of a new species of this genus (Diptera: Platypezidae)," Edward L. Kessel, 10 pp. **Proceedings**, vol. 30, No. 3, "Large Terebras (Mollusca) from the eastern Pacific," G. Dallas Hanna and Leo George Hertlein, 13 pp.; No. 4, "Four species of *Chitons* from the Panamic Province (Mollusca: Polyplacophora)," Allyn G. Smith, 9 pp. The Academy, San Francisco, Calif., 1961.

Carnegie Institution of Washington. **Cosmic-Ray Results**. Publ. No. 175. Huancayo, Peru, January 1956–December 1959; Cheltenham, Maryland, January 1956–4 October 1956; Fredericksburg, Virginia, 5 October 1956–December 1959; Christchurch, N.Z., January 1956–June 1959; Godhavn, Greenland, January 1954–July 1959; Universidad Nacional de Mexico, July 1957–December 1958. Liselotte Beach and S. E. Forbush, 226 pp. **Equatorial Electrojet in Peru**. Publ. No. 620. Scott E. Forbush, 135 pp. The Institution, Washington, D.C., 1961.

Elementary Teachers Guide to Free Curriculum Materials. Patricia H. Suttles, Ed. Educators Progress Service, Randolph, Wis., ed. 18, 1961. 360 pp. \$7.50.

Geophysics Research Directorate. **Air Force Surveys in Geophysics**, No. 132, "Evaluation of an arctic ice-free land site and results of C-130 aircraft test landings, Polaris Promontory, North Greenland, 1958–1959, Stanley M. Needleman, Donald W. Klick, and Carlton E. Moklineux, 70 pp. + map. **Research Notes**, No. 55, "Proceedings of the third annual arctic planning session, November 1960," George P. Rigsby and Vivian C. Bushnell, Eds., 148 pp.; No. 56, "Horizontal sounding balloon feasibility study," Thomas B. Spalding and Samuel B. Solot, 27 pp.; No. 57, "Instability and vertical motions in the jet stream," Joachim P. Kuettner and George S. McLean, 15 pp. Cambridge Research Laboratories, U.S. Air Force, Bedford, Mass., 1961 (order from ASTIA, Arlington Hall Station, Arlington 12, Va.).

Hunger. Can it be averted? E. John Russel and Norman E. Wright, Eds. British Assoc. for the Advancement of Science, London, 1961. 80 pp. 5s.

An Inexpensive Science Library. A selected list of paperbound science books. Compiled by Hilary J. Deason and Robert W. Lynn. AAAS, Washington, D.C., ed.

5, 1961. 87 pp. \$0.25. Annotated, selected listing of 679 titles recommended for high school students, college undergraduates, teachers, and laymen.

Jacobsen-McGill Arctic Research Expedition to Axel Heiberg Island, Queen Elizabeth Islands. **Preliminary Report of 1959–1960**. Fritz Müller *et al.* Barbara S. Müller, Ed. Dept. of Geography, McGill Univ., Montreal, Canada, 1961. 219 pp. \$2.50. Papers on glaciology, geophysics, meteorology, geology, geomorphology, botany, permafrost, mountaineering, and mapping.

Japan National Committee for Theoretical and Applied Mechanics. **Proceedings of the Tenth Japan National Congress for Applied Mechanics, 1960** (in English). Science Council of Japan, Ueno Park, Tokyo, 1961. 442 pp. Illus.

Mental Health Book Review Index, vol. 6, No. 11. Compiled by the Editorial Committee and Contributing Librarians. Ilse Bry, Chairman. American Foundation for Mental Hygiene, 1961. 62 pp. \$3. The index, an annual publication, is sponsored by the World Federation for Mental Health, the International Council of Psychologists, the American Foundation for Mental Hygiene, and the Research Center for Mental Health (New York University). Copies can be ordered from Lois Afflerbach, Paul Klapper Library, Queens College, Flushing 67, N.Y.

Michigan Academy of Science, Arts, and Letters. **Papers**, vol. 46, pp. 365–404, "Man and the changing fish fauna of the American Southwest," Robert Rush Miller. The author, Museum of Zoology, Univ. of Michigan, Ann Arbor, 1961.

National Institutes of Health. **Public Health Service Grants and Awards by the National Institutes of Health**. pt. 1, *Health Research Facilities Construction and Research Projects*. Fiscal year 1960. Superintendent of Documents, GPO, Washington, D.C., 1961. 445 pp. \$1.25.

Royal Society of Edinburgh. **Yearbook, 1961**. The Society, Edinburgh, Scotland, 1961. 138 pp.

Smithsonian Institution. **Miscellaneous Collections**. vol. 142, No. 4, "Cenozoic and Cretaceous echinoids from Trinidad and Venezuela," C. Wythe Cooke, 35 pp. + plates. vol. 143, No. 4, "Comparison of tektite specimens from Empire, Georgia, and Martha's Vineyard, Massachusetts," Roy S. Clarke, Jr., and Maxwell K. Carron. The Institution, Washington, D.C., 1961.

United States Committee on Interstate and Foreign Commerce. **Bills to Advance the Marine Sciences**. Hearings before the committee. Superintendent of Documents, GPO, Washington, D.C., 1961. 204 pp.

U.S. Geological Survey. **Bulletin**, No. 1058-H, "Geology of part of the Craig C-2 quadrangle and adjoining areas, Prince of Wales Island, southeastern Alaska," C. L. Sainsbury, pp. 299–362, map. **Professional Papers**, No. 386-A, "Temperature rise within radioactive liquid wastes injected into deep formations," Herbert E. Skititzke, 8 pp., \$0.15; No. 411-A, "A solution of the differential equation of longitudinal dispersion in porous media," Akio Ogata and R. B. Banks, 7 pp., \$0.15. Superintendent of Documents, GPO, Washington, D.C., 1961.