length of *Miacis*; on page 123, the upper figure probably represents *Palaeomastodon*; on page 136, there is no evidence of *Diceratherium, Dinohyus,* and *Syndyoceras* being contemporaries of *Merychippus*, mastodonts, *Alticamelus*, and *Cranioceras*; on page 151, a preferable late Pleistocene assemblage would be *Bison antiquus, Camelops hesternus*, and *Cauis dirus*; on page 154, there is no evidence that *Castoroides* cut down trees or had a flat tail.

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Comprehensive Survey

McGraw-Hill Encyclopedia of Russia and the Soviet Union. Michael T. Florinsky, Ed. McGraw-Hill, New York, 1961. xiv + 624 pp. Illus. $23.50.

The primary task of an encyclopedia is not to add to knowledge, but to pull it together, systematize, and make it readily accessible for interested readers. The present volume, a product of the labors of a highly competent staff, offers no new views, facts, or ideas; its main virtue is that it provides the most comprehensive 1-volume English-language survey of the Soviet Union—its natural setting, ethnic composition, historical background, intellectual and literary tradition, and modern institutions. Surveys of Soviet industry, agriculture, economic planning, technology, law, social insurance, and the medical system, as well as of dozens of other topics are necessarily brief, yet they are modern in design and illustration, wide in compass, and rich in significant detail. The suggested readings at the end of each major article are carefully selected, and they are kept to a minimum. The readings will be most useful to persons seeking additional information, and they also provide an impressive index of the comparatively advanced status of Russian and Soviet studies in this country.

The development of scientific thought has been given special emphasis. Three distinct and complementary approaches have been used to ensure a comprehensive survey of science. The *biographical* approach has been employed most extensively and with the greatest consistency. The book contains short sketches of most leading scholars, from Mikhail Lomonosov in the middle of the 18th century to hundreds of present-day Soviet academicians and other members of the scholarly elite. Some sketches are too brief to be meaningful, and some suffer from misplaced emphasis: they put more stress on published works than on scientific ideas. It is a pleasure to see the names of Soviet scientists, such as A. A. Balandin, an eminent chemist, who for ideological or other reasons were ignored in the *Great Soviet Encyclopedia.*

The extensive use of the *disciplinary* approach—the coverage of the status and development of individual sciences—has produced satisfactory results. The volume has particularly good articles on physics, chemistry, mathematics, physiology, biology, genetics, and geology. I would have liked to see special articles on anthropology, ethnography, soil science, and geography —the areas in which both Russian and Soviet scholars have made substantial contributions.

The *institutional* approach, the surveying of associations and agencies dedicated to scientific pursuit, has not been employed adequately. The work and the organization of the Soviet Academy of Sciences has received fairly detailed treatment; however, the Academy's many regional branches as well as the analogous institutions operating on the Union-Republic level have been listed but not described. Most learned societies, some with deep historical roots, have been overlooked. A more thorough utilization of the institutional approach would have enabled the editor and the staff to treat such important topics as the organization of research, academic stratification, political control over scientific work, and the relationship of science to ideology. The institutional loci of decision-making relevant to the establishment of research priorities and budgetary allocations are discussed in Leon Trilling's excellent article, "Technology."

In keeping with the spirit of our scientific age, ample space has been given to special articles covering "atomic energy," "space science," "automation," and "electronics."

A monumental source of pertinent, reliable, and systematic information, this volume adds significantly to our understanding of the Soviet Union and its Russian cultural heritage.

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Pacific Exploration

The Journals of Captain James Cook on His Voyages of Discovery. vol 2, *The Voyage of the Resolution and Adventure, 1772–1775.* J. C. Beaglehole, Ed. Published for the Hakluyt Society. Cambridge University Press, New York, 1961. clxx + 1021 pp. Illus. Maps. $19.50.

"Like his greatest contemporary, George Washington, who won a great war without winning a battle," James Cook was great, not for a moment "but of the whole life," wrote Arnold Wood. Cook, the son of a farm laborer, first shipped with the coastwise collier *Freelove*, and he took his first command at 27. Eight years later he observed the sun's eclipse for the Royal Society. On 13 July 1772, he sailed in H.B.M.S. *Resolution* on his second voyage to probe again Terra Australis, a mirage that rose like mermaids to deceive mariners. This second voyage brought more *re*discoveries (Mendaña's Marquesas, Quiro's New Hebrides, and Captain Roggeveen's Easter Island) than discoveries (New Caledonia, South Georgia, and Norfolk Island). "If I have failed in discovering a continent, it is because it does not exist in a navigable sea, and not for want of looking after."

Beaglehole will stand to Captain Cook as editor-scholar Julian Boyd stands to Jefferson. For the hurried reader, there is the Everyman edition and Grenfell Price's recent sampler (Heritage Press). For the "curious" reader, Beaglehole has charted the research deeps and found details unsounded in the history of Pacific exploration. The anthropologist, systematic botanist, ornithologist, marine biologist, and others will return to pick up facts serried in stratified footnotes. Cook's men witnessed cannibalism on the quarter deck, named islands, described penguins, penis sheaths, and the first Old World passion flower, encountered yaws, and gave away goats, sheep, cats, seeds for planting, nails, nails, and more nails, beads, knives, looking glasses, and, reluctantly, shirts off their backs! They kept their health, far beyond the fortunes of their contemporary seamen, with sauerkraut, carrot marmalade, and fresh greens. "I cannot say," wrote Cook on a particularly sprightly page, "that the women [of Tana] are beauties but I think them handsome enough for the men and too handsome for the use that is made of them."