Book Reviews

Berthollet, Laplace, and Company

The Society of Arcueil. A View of French Science at the Time of Napoleon I. MAURICE CROSLAND. Harvard University Press, Cambridge, Mass., 1967. 534 pp., illus. $15.

Early in 1807 Claude Louis Berthollet and Pierre Simon Laplace gave structure to their activities as patrons of French science by organizing the Society of Arcueil. It was a short-lived society, meeting only through 1813, with a membership totaling 14. Though three volumes of *Mémoirs de la Société d'Arcueil* were published (1807, 1809, 1817), the society kept no records and developed no formal institutional procedures. It was, however, one of those rare scientific societies which substituted brilliance of membership, solid achievement, and extended influence for large size and formal organization. Simply to list the members indicates its importance: besides Berthollet and Laplace, the early members were Alexander von Humboldt, Jean-Baptiste Biot, Louis Jacques Thenard, Joseph Louis Gay-Lussac, Auguste de Candolle, Hippolyte Collet-Descotils, and Berthollet's son, Amédée Barthélemy. Before its dissolution, the society had added Étienne Louis Malus, Dominique Arago, Jacques Bérard, Jean Antoine Chaptal, Pierre Louis Dulong, and Siméon Denis Poisson. Seldom can there have existed a scientific society whose membership was of equal caliber.

Although references to the Society of Arcueil are frequent in accounts of 19th-century French science, no extended treatment has been available. Crosland has attempted that here, in a work with substantial scholarly merit though unevenly successful as institutional history. The problem lies in the peculiar relationship of the society to other contemporary French scientific institutions.

The society took its name from the village of Arcueil, near Paris, where Berthollet purchased a home in 1801 and to which Laplace moved in 1806. Once a fortnight carefully selected young scientists would meet at Berthollet's house to discuss problems, perform experiments, and read papers. But in another sense, the society was in continuous session. Laplace and Berthollet gave freely of their time and counsel, Berthollet's laboratory was available for members' use, and the *Mémoirs* made possible the prompt and respectable publication of members' work. But the proximity of metropolitan Paris, with its scientific and educational institutions at which all the members lectured and worked, makes it next to impossible to separate the activities of the Society of Arcueil from those of the others, the École Polytechnique, for example, or the Société Philomatique, or the First Class of the Institut de France. This imposes problems of discrimination and organization on a historian of the society, with which Crosland has obviously struggled, not entirely successfully.

Crosland attempts to avoid some of the difficulties by treating the Society of Arcueil as a special example of the patronage of French science. The result is an extended description of the social and institutional character of Napoleonic science which postpones explicit treatment of the Society of Arcueil to the latter half of the book. Once we get to the society, the going becomes considerably easier. The interplay of personality, the relation between ideas of the patrons and work of the junior members, and the origins of some of the seminal discoveries of 19th-century science—for example, Malus and polarization by reflection, Gay-Lussac and combining volumes—are all illuminated by Crosland's work. His suggestion that Arcueil's program fulfilled the Newtonian commitment of Laplace and Berthollet is particularly interesting, as an explanation for the unique Newtonian character of early 19th-century French science.

The Society of Arcueil is packed with information. It provides a most convenient access to much of Napoleonic scientific activity and the only one to that of the Society of Arcueil. It is not light reading, but it is highly useful studying and is unlikely soon to be superseded.

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The Worlds of the Eskimos

Eskimo Masks. Art and Ceremony. DOROTHY JEAN RAY. Photographed by ALFRED A. BLAKER. University of Washington Press, Seattle, 1967. 260 pp., 82 plates. $12.50.

Dwelling in a land where food was often scarce, and where winter lasted eight or nine months of the year, the Eskimos viewed much of the human experience with more than ordinary pragmatism. If a person died during the cold season, the corpse often was simply abandoned or was put up on the family meat cache until the following spring when grave digging became more practicable. When sled dogs reached ages of six or seven they were considered too old to work and were accordingly killed. Because there was little else to eat, nearly all of the scattered Eskimo tribes lived mainly by hunting the large mammals of the tundra and the Arctic seas. When the game failed, as it rather commonly did in one part or another of the Eskimo world, the people ate whatever else was available. Familiar and traditional diets of hunger, in that environment of few resources, included gulls, roots, boots, and dogs.

On the one hand, therefore, Eskimo life was a study in the kind of realism that is derived from acute necessity. On the other hand, however, the Eskimos were in possession of a rich and extensive intellectual and esthetic culture. They were certainly among the best of storytellers—recounters of a seemingly endless variety of tall and short tales, creation myths, heroic episodes, and doings of the animal people. Their shamans were capable of magical and supernatural feats that not only awed the Eskimos themselves but sometimes astonished visiting traders, whalers, and missionaries as well. They had phenomenal knowledge of vertebrate anatomy and taxonomy, even of those northern forms which had little or nothing to do with their economy. Their art, especially their carvings of stone, wood, bone, and