

strikingly similar, despite the *Atlantis*'s being at the mercy of the wind (and her small engine). However, the *Atlantis* was a hard mistress, and severe accidents were not uncommon; sails clearly added hazards.

Inevitably, the limitations of sail and age caught up with the *Atlantis*. Gradually she was relegated to minor tasks as scientists transferred their research to more versatile, if less glamorous, ships, and in 1963 she was replaced by the excellent new *Atlantis II*. In 1966, the *Atlantis* was sold to the Argentine Navy to continue her career as *El Austral*. Considerable effort was spent in her refurbishment, and she is still carrying out research, though on a reduced schedule.

The story of the *Atlantis* is also the

history of an important part of oceanography. The vitality of oceanography elsewhere, both in the United States and abroad, during the period covered is really only hinted at in the book, and the reader might conclude incorrectly that the oceanographic world was centered on the *Atlantis*. Yet it is unfair to Schlee to criticize this aspect too heavily, for what she set out to write was an intimate history of one ship. In this she has succeeded well. Readers who are unfamiliar with the *Atlantis* will find a wealth of scientific history and personal details, and those who are part of that history will find nostalgic portraits of their shipmates and their ship.

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A Lake of Great Renown

Lake Kinneret. C. SERRUYA, Ed. Junk, The Hague, 1978 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xii, 502 pp., illus. \$63.40. Monographiae Biologicae, vol. 32.

No lake in the world has had so intimate an involvement in the history of human religion as Kinneret, known from the New Testament as the Sea of Galilee, and few areas have so rich a record of the more secular concerns of humanity as the Kinneret basin. Since the appearance in the Early Pleistocene of Lower Paleolithic humans a full panoply of prehistoric and historic peoples have left their imprint on the land. Kinneret enters

the historic period in 1600 B.C. with an Akkadian tablet listing the gods of Ugarit, one of whom, the music-loving Kinnar, gave the lake its name. By that era the fisheries of Kinneret were already famous; later they sustained, both symbolically and metabolically, the rise of Christianity. They are still significant, but in modern times it is the water of the lake that irrigates the economy of Israel and generates the scientific and practical interest that has made this book possible.

Quite properly for such a lake Serruya has employed a historical perspective in planning the book. The stratigraphy, tec-

tonics, and evolution of the Jordan valley are covered at length. Only fishes, among the vertebrate groups, receive more attention than prehistoric humans. Even topics that are not historical in nature, such as meteorology, limnology, and zooplankton are introduced by historical essays. Some topics have been studied since the time of Josephus Flavius. The groundwork for others was laid in the 18th, 19th, or early 20th century, when a voyage to the Holy Land was still an adventure. Sustained study of the lake dates from the establishment of the Kinneret Limnological Laboratory in 1968, and for some topics, such as fish population dynamics, the historic period has hardly begun.

Some groups of plants and animals are accounted for largely through species lists, but a more dynamic treatment is possible for the phytoplankton, especially *Peridinium cinctum*, the dinoflagellate that dominates primary production. Synopses are presented of the natural history of the principal groups of organisms living in and around Kinneret. Where sufficient information exists an account is given of the biogeographic affinities of the Kinneret representatives and of their distribution in the lake. Seasonal events in the lake affect the distribution of its biota—for example, the area of the bottom swept by standing waves on the thermocline during the season of stratification has an impoverished benthos of species that can tolerate repeated immersion in oxygen-poor water. The epilimnion and even the hypolimnion, where reducing conditions are more severe but more predictable, has a richer benthic community. Particular attention is paid to endemic species, such as the blind prawn, that are likely to be endangered by cultural modification of the lake.

This is a book that will serve its primary purpose of providing a handbook of knowledge for those who study and manage Lake Kinneret. In the wider world it will be of use to comparative limnologists of either a chemical or a biological persuasion, to systematists, to biogeographers, and especially to readers interested in the rational exploitation of water resources. It should serve even biblical scholars who are interested in what fish Galilean fishermen took when they cast their nets on the other side, or what daily pattern of winds buffeted them as they did so.

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The Meshushim pool, Meshushim River, Golan Heights. The prismatic columns of basalt formed during the slow solidification of lavas. [From *Lake Kinneret*]