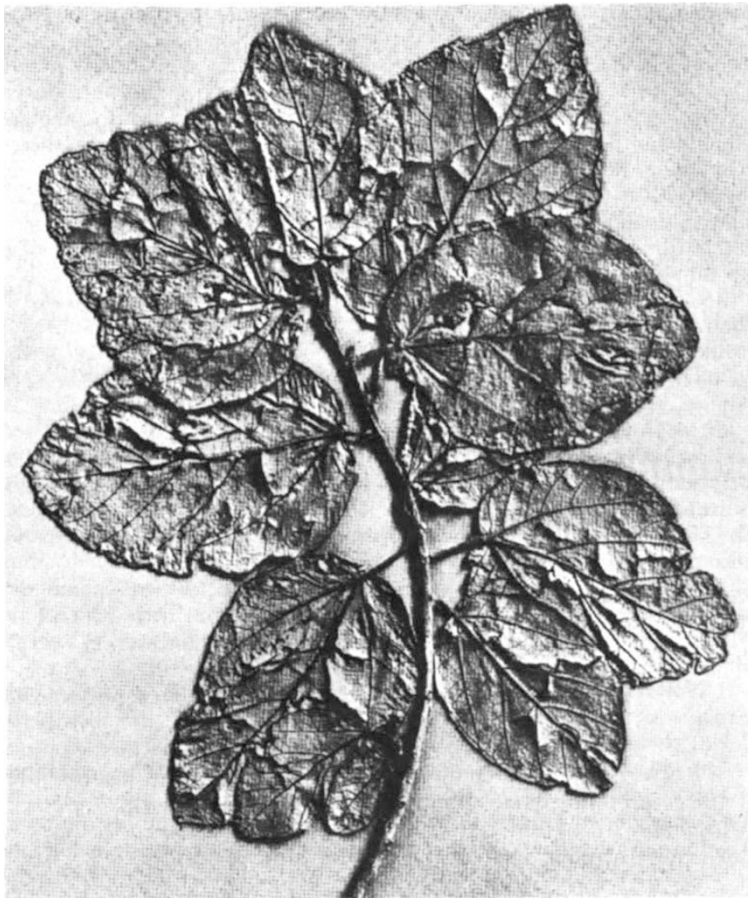
reviews

Waters of the Nile

Malcolm Coe

The Nile: Biology of an Ancient River. (Monographiae Biologicae, Vol. 29.) Edited by Julian Rzóska. Pp. 417. (Junk: The Hague, 1976.) Dutch Guilders 120.



Branch of sacred sycomore or mulberry fig (*Ficus sycomorus*) from a 20th dynasty Egyptian tomb. The tree is "not indigenous but (has been) cultivated in Egypt since times immemorial. It originates from Arabia and Somaliland. Its ancient name was Nehet-entep, and its fruits have been found in tombs of all ages, the earliest from the first dynasty. It was dedicated to Hathor, the Goddess of love and marriage. Even today a vestige of this belief can be seen in the custom of women visiting the sycamore when troubled by matrimonial cares".

No other river in the world can be as closely woven into the history of mankind as the Nile, sweeping for 32 degrees of latitude from the Equator to the Mediterranean. Such prehistoric and historic associations have been largely due to the fact that the "fluviatile" civilisations that have come and gone along its banks have been dependent not only on its life-giving waters but also on the huge and fertile silt burdens that it has carried from the interior of this vast continent.

For us today the memory of Baker, Burton, and Speke who sought to find the source of the Nile are still comparatively fresh, yet the Nile's origins in snow-covered mountains (the Mountains of the Moon) are almost as old as human written history itself.

The history of the Nile valley begins with the regression of the Mediterranean in the Upper Miocene when about 5.5 Myr ago the sea dried up completely and as a consequence of this low sea bed level the resulting intense erosion led to the formation of the Nile valley. Later the great tectonic and climatic events of the Pleistocene resulted in great changes in the southern water sources, leading eventually to the formation of the Neonile about 30,000 yr ago. In spite of the long history of a 'Nile System', however, the river as we know it today is probably no older than 12,500 yr and possibly even as young as 10,000 yr.

Since this vast artery passes for about two-thirds of its length over arid (water-limited) country, the flora and fauna of much of its surroundings stands in stark contrast to the largely detritus-based biota of the river itself.

The fish fauna of the Nile has for so long formed an important item of diet for the civilisations that have waxed and waned along its banks. In all, the river and lakes located at its origins comprises some 320 species of fish of which 62% of them are endemic.

The problems related to development in the desert environment concern not only the problems of huge silt burdens but also concomitant biological effects such as the invasion of the water hyacinth *Eichhornia crassipes* and the spread of the mollusc vectors of schistosomiasis.

Julian Rzóska has brought together a team of distinguished authors who have described the history, geomorphology, hydrology and biology of this great river and its environs in great detail.

The first four chapters deal largely with the history and prehistory of the Nile system, and later sections describe in detail the biotic and abiotic components of the system and its constituent parts.

Although most of this book is concerned with describing the main biotic and abiotic components of this important system, it is inevitable that a vital part must deal with the effects of human interaction, particularly with regard to the Aswan High Dam.

Considering the huge problems that have faced the editor in attempting to condense such a vast assemblage of data this book will be a valuable source for all students of tropical limnology. If the presentation has a failing it is that the fragmentation under such a large number of chapter headings makes it difficult to view the Nile system as a whole rather than its constituent parts. □

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