

identity, his religion was clearly demarcated from other religions. Above all, he abhorred folk-religion. A Shaivite now had to avoid all "heathenish ceremonies", just as the Christian missionaries demanded of their converts. Typically he was not a brahmin, but a Vellala, a conscientious, well informed layman.

Protestant revivalist Hinduism is especially interesting when we compare it to contemporary neo-Hinduism. Contrary to Navalar's revivalist Hinduism a century ago, the absence of a pivotal centre in Hinduism has been made a virtue by supporters of the neo-Hinduist ideology and is taken as proof of a transcendental unity over and above particular sectarian groupings.

This interesting book on the Hindu-Christian controversies was written between 1980 and 1995. Work on it was at times seriously obstructed by the fratricidal ethnic war between Tamil and Sinhalese inhabitants of Sri Lanka. The authors are to be thanked for their efforts in difficult circumstances.

Almuth Degener

GILLIAN JULEFF, *Early Iron and Steel in Sri Lanka. A Study of the Samanalawewa Area.* (Materialien zur Allgemeinen und Vergleichenden Archäologie, 54). Mainz: Philipp von Zabern, 1998. VIII, 422 pages, 201 illustrations, maps, plans and tables, DM 78,-. ISBN 3-8053-2512-6

Since about a decade, the focus of archaeological exploration in Sri Lanka has been extended from the old centres in the north (Anuradhapura, Mantai etc.) to places in the south. German teams are presently engaged in excavations at Tissamaharama and at the seaport of Godavaya, and the publication under review presents the results from the fieldwork in the Samanalawewa area, conducted by a British archaeologist. From this area on the upper Walawe Ganga, iron working sites have long been known, and a ethnographic survey among locals also showed that the knowledge of iron melting and smithing still prevails. The production of steel was fostered by two factors, viz. the ready availability of iron ore and the prevalence of strong winds that were cleverly employed in the production process. As excavations revealed, the winds were "trapped" in terracotta pipes (tuyeres) and directed into the furnace in order to achieve higher temperatures during the firing process. As an experiment, the excavator reconstructed one of the furnaces and succeeded, even with limited experience, in producing high carbon steel of fine quality. That Sri Lanka was one of the leading exporters of crucible and high carbon steels between the 3rd and the 12th centuries, when production flourished and skills were most advanced, is stated in a 9th century Islamic source which praises *Sarandibi* steel.

With regard to Sri Lanka's participation in the trade along the "silk road of the sea", the results of this study have far-reaching implications. It gives us new hints about the power structure within medieval Sri Lanka. In this respect, our perception of the island's past is mostly shaped by the chronicles which try to present an agrobased, centralized island state governed from Anuradhapura. Other parts of the island, it is tacitly implied, were provinces or dependent principalities at the best. Careful reading of the chronicles, however, yields some hints that *Rohana* (the southern part of the island) held a special position, not only in periods of crisis when it served as a basis for liberation movements against foreign (mostly Tamil)

rulers. The archaeological data seem to support this notion of *Rohana* as a highly independent province relying on its economic strength derived from its participation in international trade with highly valued goods.

The production of steel in Sri Lanka and its subsequent trade to the Middle East also shows that even in pre-modern times, a global trading network existed, the dimensions of which we are only beginning to comprehend. As places of production and channels of procurement were well protected, we may never get a full picture of commerce in the ancient or medieval world, but studies such as this one give food for further thoughts about its possible connections.

If Sri Lanka has in recent times gained some fame for repeatedly adding exciting and valuable contributions to our knowledge of early South Asian history and culture, the results of this study add to this reputation. Moreover, the integrated approach combining ethnoarchaeology, excavations, archaeometallurgy, and experimental archaeology illustrates what archaeology can contribute to social science research, past or present.

Tilman Frasch

RICHARD H. GROVE, VINITA DAMODARAN, SATPAL SANGWAN (eds.), *Nature and the Orient. The Environmental History of South and Southeast Asia*. Delhi: Oxford University Press, 1998. XX, 1036 pages, 73 tables and figures, Rps. 1450,-. ISBN 0-19-563896-4

If environmentalists still had to regard Schumacher's famous slogan "small is beautiful" as their gospel truth, the editors of the volume under consideration would have failed right from the beginning: The book is extensive in every respect. It accounts for an impressive 1036 pages, and besides its broad regional and disciplinary approach its contents cover a long time span from the stone age to the early 1990s. Its 31 papers, presented at a conference in Delhi in 1992, are all dedicated to the environmental history of South and Southeast Asia. Environmental history is a younger, but nevertheless fruitful branch of the history tree, which moreover has the advantage of serving as a bridgehead to interdisciplinary research in cooperation with other disciplines such as geography, economics or ethnology.

Volumes of such massive size can not be adequately reviewed and are, perhaps, best described in broad outline: Of the 31 papers, 19 are concerned with forests and related questions such as forest use, forest policy, and deforestation. Two concentrate on irrigation, one each on mining and marine environments and the rest on more general themes of nature and the environment. Regarding the period and the area, an overwhelming majority of 25 papers treat the colonial period and/or South Asia (including Burma as a part of the Indian Empire). For this focus, two main results can be made out. First, most of the authors are unanimous that the impact of colonial forest and land legislation was destructive to the ecosystem, resulting in far-reaching erosion, desiccation, and deforestation, even if an ongoing process of deforestation since prehistoric times has to be taken into account. There is also agreement that the various types of shifting and swidden cultivation as practised by forest-dwelling communities all over South and Southeast Asia have to be regarded as much less harmful to the forest than British forest officers were wont to