

The Biocultural Context of Anemia in the Ancient Indus Valley

Nancy C. Lovell

*Department of Anthropology, 13-15 Tory Building, University of Alberta,
Edmonton Alberta T6G 2H4, Canada
Fax: (403)492-5273, E-mail: Naincy.Lovell@ualberta.ca*

KEYWORDS Mohenjo-Daro. Harappa. Harappan Civilization. Malaria. Porotic Hyperostosis Cribra Orbitalla

ABSTRACT The Harappan civilization is considered by many scholars to be among the earliest and most developed ancient states, flourishing some 4,000 to 5,000 years ago in the Indus Valley and peripheral area. At the type site of Harappa, two of 29 crania recovered during excavations of the Harappan period cemetery reveal cranial lesions indicating chronic anemia. Since no postcranial lesion consistent with the effects of genetic anemias, such as thalassemia or sickle cell anemia, were observed, anemia at Harappa is most likely an acquired iron deficiency. The precise cause is uncertain since the material exhibits low frequencies of skeletal indicators of chronic infection and nutritional deficiency, two contributing factors to the etiology of anemia. The low prevalence of anemia at Harappa may be linked to a good nutritional base in a diverse ecological setting, and to few gastrointestinal; and other infections due to high standards of personal hygiene. A higher frequency of anemia at Mohenjo-Daro may be best explained by a genetic anemia because the environmental zone in which Mohenjo-Daro is located supports endemic malaria. These conclusions should be considered tentative, however, due to the small skeletal samples available for analysis from these and other South Asian sites.