

## **ARCHAEO-HISTORICAL ENVIRONMENT AND SIGNIFICANCE OF ANCIENT AGRICULTURE IN THE TROPICAL DESERTS**

**Farooq Ahmad**

*Department of Geography, University of the Punjab, Lahore, Pakistan.*

**Keywords:** Agriculture, Civilization, Environment, Egyptian, Holocene, Harappa, Mesopotamia, Mohenjo-daro, Neolithic period, Tropical deserts.

### **Contents**

#### **1. Introduction**

- 1.1. African and Eurasian Civilizations
- 1.2. Sumer 3500-2334 BC
- 1.3. Indus Valley and the Indian Subcontinent 3200-1700 BC
- 1.4. Ancient Egypt 3200-343 BC
- 1.5. Elamite 2700-539 BC
- 1.6. Persia 550 BC-330 BC
- 1.7. China 2200 BC-Present
- 1.8. Greece 2000-1450 BC
- 1.9. Korea 900 BC-present
- 1.10. The fall of civilizations

#### **2. Significance of agriculture**

- 2.1. Ways of Cultivation

#### **3. The beginning of agriculture**

- 3.1. Early Agriculture

Glossary

Bibliography

Biographical Sketch

### **Summary**

Archaeo-historical environment traces the development of civilization in Egypt, the Levant, Mesopotamia, India and China from before the Neolithic period. The ecological and economic background to growth, geographical factors, cross-cultural intersection and the rise of urbanism are examined in each case, explaining how particular forms of social structure and cultural interaction developed. In its broad scope and comparative approach this accessible volume is an ideal introduction to the birth of civilization from the Mediterranean to the Far East. This volume challenges the traditional assumption of a band-tribe-chiefdom-state sequence in the development of civilization. It demonstrates that large complex societies can flourish without social classes and the state, as dramatically shown by the Indus civilization, and presents new evolutionary mechanisms. The history of the environment in its various aspects is very relevant in relation to archaeological history. The purpose of this chapter is to assess the available evidence and published arguments and to provide a constructive working synthesis of evidence for the palaeoenvironmental setting of tropical deserts for the mid to late Holocene. Since about the 1980s, archaeologists have employed GIS technology to understand and explain cultural patterns. GIS has become an indispensable tool for field

workers; from site identification to landscape analysis, this tool has expanded the ability of archaeologists to reconstruct and model past lifeways. Its ability to process spatial data in a fraction of the amount of time previously required, makes it invaluable for the analysis of cultural landscapes and processes utilizing new information, such as Digital Elevation Model (DEM), Digital Terrain Model (DTM) and Digital Landscape Model (DLM) from Space Shuttle Radar Topographic Mission (SRTM) show very clearly that the prehistoric communities selected the locations for their settlements according to the most suitable environment and the clue about the ancient land use in some suspected area may be derived from the prehistoric sites found in the area.

## 1. Introduction

The term 'civilization' has a variety of meanings related to human society. Most often it is used to refer to "complex" societies: those that practice intensive agriculture; have a significant division of labor; and have population densities sufficient to form cities. 'Civilization' may be used more broadly to refer to the sum, or current extent, of human accomplishment and spread. A mere 10-12 thousand years ago the nomadic communal hunter-gatherer way of life, which is often described as the cradle-of-humanity, was overwhelmed by a more intense way of producing a few basic foods, the first Agricultural Revolution, the Neolithic Revolution occurred. Concentrated agriculture allowed for massive population increases in towns and cities. The word 'civilization' has two origins: i) *civis*, and ii), *civilis*. In this sense, being "civilized" means being a citizen, who is governed by the law of his/her city, town or community. By the most minimal definition, a *civilization* is a complex society. Anthropologists distinguish civilizations, in which many people depend on agriculture for food and live in cities, from band societies, in which people live in nomadic, semi-nomadic groups, or tribal societies, in which people may live in small semi-permanent settlements. Bands usually subsist by hunting and gathering; tribes by horticulture. Jeffrey A. McNeely (1994) has recently suggested that "A review of historical evidence shows that past civilizations have tended to over-exploit their forests, and that such abuse of important resources has been a significant factor in the decline of the over-exploiting society".

-  
-  
-

TO ACCESS ALL THE 20 PAGES OF THIS CHAPTER,  
Visit: <http://www.eolss.net/Eolss-sampleAllChapter.aspx>

## Bibliography

Ahmad, F. 2005. "Historical and archaeological perspectives of soil degradation in Cholistan", *Journal Geographic*, **10**:31-35. [The article highlights historical and archaeological dimensions of desertification in Cholistan].

Ahmad, F. 2007. “Archaeo-historical environ of Cholistan and significance of ancient agriculture in Pakistan”, *Journal of Food, Agriculture & Environment*, 5(3&4):392-398. [The paper is focused on archaeo-historical environment of Cholistan and old, old and old ways of cultivation in Pakistan].

Algaze, G. 2004. *The Uruk World System: The Dynamics of Expansion of Early Mesopotamian Civilization*. Second Edition. [The author discussed the root causes and expansion of Mesopotamian civilization].

Chaudhry, Nazir A. 2002. *Harappa: The cradle of our civilization*. Sang-e-Meel Publications, Lahore, Pakistan, pp.79-84. [The book is focused on the structure of Harappan culture and advancement of Indus civilization in Pakistan].

<http://en.wikipedia.org/wiki/Civilization> [The useful web link is a place of interest to explore the information about oldest civilizations].

[http://en.wikipedia.org/wiki/Indus\\_Valley\\_Civilization#Discovery\\_and\\_excavation](http://en.wikipedia.org/wiki/Indus_Valley_Civilization#Discovery_and_excavation) [This web link is the best source of information about Indus Valley civilization; its discovery and excavation in Pakistan].

Kenoyer, J. 1998. *Ancient Cities of the Indus Valley Civilization*. Oxford University Press. [The book is about old, old and old cities of Indus Valley Civilization and its link to adjoining region].

McNeely, Jeffrey A. 1994. *Lessons of the past: Forests and Biodiversity*. *Biodiversity and Conservation*, 3:(1). [A document that provides information on the past biodiversity resources and its conservation].

Mughal, M. R. 1997. *Ancient Cholistan - archeology and architecture*. Ferozsons (Pvt) Ltd; Lahore, Pakistan. [A document that provides information on archaeo-architecture pattern of Cholistan].

Phillips, K. 2006. *American Theocracy; the Perilious Policies of Radical Religion, Oil and Borrowed Money in the 21st Century*. [The author discussed the American perilious policy about radical religion].

Wallerstein, I. 1974. *The Modern World-System. Vol. I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, Academic Press. [The author discussed the capitalist agriculture and the origins of the European world-economy in sixteenth century in perspectives of the modern world-system].

Wallerstein, I. 1980. *The Modern World-System. Vol. II: Mercantilism and the Consolidation of the European World-Economy, 1600-1750*, Academic Press. [The author discussed mercantilism and the consolidation of the European world-economy during 1600-1750 in perspectives of the modern world-system].

Wallerstein, I. 1989. *The Modern World-System. Vol. III: The Second Great Expansion of the Capitalist World-Economy, 1730-1840s*, Academic Press. [The author discussed the great expansion of the capitalist world-economy in perspectives of the modern world-system].

Wilkinson, D. 2001. *The Power Configuration Sequence of the Central World System. 1500-700 BC*. [A document that provides information on the power configuration sequence of the central world-system during 1500-700 BC].

### **Biographical Sketch**

**Farooq Ahmad** is a lecturer in the Department of Geography, University of the Punjab, Lahore, Pakistan. He holds a Ph.D. in Geography (2001). His expertise is archaeo-historical environ surveys and multi-disciplinary studies on ancient settlements in the deserts. He contributed more than 50 research papers to international conferences around the Globe. His current research involves the Geoinformatics, Geomorphology, Pleistocene Geomorphology and GPS and Land Surveying.