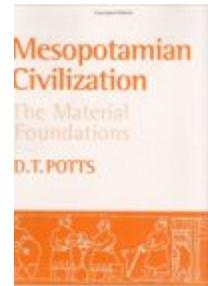


H-Net Reviews

in the Humanities & Social Sciences

D. T. Potts. *Mesopotamian Civilization: The Material Foundations*. Ithaca, New York: Cornell University Press, 1997. xxi + 336 pp. \$62.50 (cloth), ISBN 978-0-8014-3339-9.

Reviewed by Charles C. Kolb (National Endowment for the Humanities)
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In a broad sense, the focus of this volume is twofold: 1) to review the interrelationships between environmental factors and human adaptation; and 2) to synthesize current archaeological and cuneiform textual research, cultural adoption and adaptation, and cultural historical reconstruction. Your reviewer was trained as an anthropological archaeologist and has significant interests in material culture analyses, interpretations, and paradigms. But he was also trained in human and cultural ecology at Penn State University (his mentors included Baker, Saul, Sanders, Matson, Dupree, Michels, and Kovar). Because this review was commissioned by H-ASEH, the American Society for Environmental History list, I wish to emphasize the environmental contents of this volume rather than the prehistoric. In turn I shall discuss the author's qualifications, his precis, and the structure of the volume, and then summarize key points from each chapter before comparing this work to others from this region, and critiquing the author's objectives and successes. Potts refers to dates of the pre-Christian era as B.C.; in accordance with accepted practice, I substitute B.C.E.

Daniel T. Potts, Edwin Cuthbert Hall Professor of Middle Eastern Archaeology at the University of Sydney, Australia, is a recognized authority in the archaeology of the Arabian Gulf, and is the excavator of the major sites of Al Sufouh, Jabal al Emalah, and Tell Abraq. Among his major publications are *The Arabian Gulf in Antiquity: Vol. 1: From Prehistory to the Fall of the Achaemenid Empire*; *Vol. 2: From Alexander the Great to the Coming of Islam* (Oxford: Clarendon Press, 1990), and important contributions to major journals including *Journal of World Prehistory* and *World Archaeology*. In addition, Potts is both the founder and editor-in-chief of the journal *Arabian Archaeology and Epigraphy*. He acknowledges his

"intellectual debt to Germany scholarship" as a junior faculty member in the Institut für Vorderasiatische Altertumskunde of the Free University of Berlin, as well as to colleagues and the university (p. ix).

In *Mesopotamian Civilization*, Potts concentrates predominantly upon the third millennium B.C.E. in southern Mesopotamia and seeks to convey to the reader an ethnographic understanding of the art, architecture, history, and literature of a major civilization through the analysis of its material infrastructure. In a sense he has attempted to prepare an ethnographic reconstruction of the material culture, sociocultural components, and human behaviors extant in Mesopotamian society but the volume has also a strong ecological and environmental base. However, in no sense does the volume convey environmental determinism nor does he profess Marxist archaeology. Potts writes that:

Before we can begin to appreciate the cultures which inhabited southern Mesopotamia, it is essential that we have some understanding of the climate and environment of this region. The contributions of the two major rivers which drain southern Mesopotamia, the Euphrates and Tigris, are indisputable. The salt and silt brought south by these rivers created the landscape upon which the area's inhabitants lived. The water they brought, diverted into artificial canals, was the basis of their subsistence. How greatly the ancient landscape may have differed from the modern must also be investigated. If we ignore any of these factors then we ignore the foundations on which Mesopotamian civilization was built (p. 1).

The author informs the reader that his decision to write this book was made in 1993 following an informal postgraduate seminar at the University of Sydney where

he had criticized students for not incorporating into their discussion of ceramic standardization and specialization the available cuneiform evidence for ceramic production in Mesopotamia. Potts also realized that, as he states, “a discussion of ceramic production from both an archaeological and philological perspective was nowhere available in any of the books which I routinely put on my undergraduate reading lists ...” (p. vii). Reflecting upon this concern and determining that the same applied to other subjects such as metallurgy and agriculture, he decided to write a book that would present the basics of Mesopotamian civilization, as he writes, “from the ground up.” Potts laments that much of the salient literature is to be found in the non-English specialist literature and, your reviewer believes, seeks in the current volume to address that fault through meticulous research, detailed citations, and his own encompassing grasp of the cuneiform sources. His goal, therefore, is to review salient topics that he considers essential to comprehend “what made Mesopotamia.”

In addition, he did not want to create a work that, like many other pedagogical books, were concerned with the superstructure of a “great civilization,” namely its art, architecture, monuments, history, and literature. Therefore, the volume focuses upon Mesopotamia’s material infrastructure—soils, water, climate, and land forms as a basis for human migrations, resource exploitation, subsistence activities, socioeconomic adaptations, religious ideology, and the diffusion of elements from Mesopotamia to other areas as well as the adoption and enculturation of foreign elements into Mesopotamian culture.

This compendium has 14 chapters and is supplemented by 126 figures, 16 tables, 152 endnotes, four pages of abbreviations, 36 pages of bibliography (encompassing 785 entries), and a detailed 19-page double-column index. The bibliography is an extremely valuable reference work by itself and incorporates citations from the salient literature in English, German, French, and Italian, including the major archaeological site reports, cuneiform texts, early documentation (such as the works of Arrian, Herodotus, Pliny, Strabo, Theophrastus, and Xenophon), philology, and area studies. The index references include subject matter on topics as diverse as archaeo-astronomy, Bedouin ethnography, specific cultigens, economic botany, fauna, irrigation, mythology, and paradigms on the collapse of states.

Potts begins his treatise by reciting environmental and geographical data in “Chapter I: The Country and

its Climate” (42 pp.). Among the topics considered are climatic micro-variations (relative humidity and temperature), salt and silt depositions, land classifications, soil structure and fertility, agricultural yields, construction and maintenance of weirs and canals, geomorphology, and changes in Gulf of Arabia/Persian Gulf configurations. The Code of Hammurapi, Uruk III economic texts, and accounts by early travelers and explorers are also reviewed, and Potts observes that the study of Mesopotamian climate and environment is incomplete and that there are many unresolved problems (p. 41).

In “Chapter II: The Aboriginal Population of Southern Mesopotamia” (13 pp.), Potts considers too briefly the Babylonians, Assyrians, and Sumerians; and the Sumerian “problem” (e.g. if they were indigenous to southern Iraq or were they migrants). He summarizes the major archaeological research; emphasizes “environmental constraints” (his term); considers the significance of water fowl, flora and fauna; and explicates the hunting and gathering subsistence mode. The effects of climatic factors on human migrations, dry farming adaptations on the piedmont fringes, and suggestions of topics and geographic regions for future research are mentioned. We are also informed that “the climatic optimum in the Arabian peninsula which resulted from the northern displacement of the southern monsoon is certain to have been at least partially responsible for the increased rainfall detectable in Mesopotamia during the early to mid-Holocene” (p. 54).

“Chapter III: Agriculture and Diet” (35 pp.) is a most significant and valuable synthesis and presents up-to-date information about subsistence and nutrition, and demonstrates that infertile soil and saline water can, when properly managed, support a wide variety of plants and animals as well as producing a vast agricultural surplus. Potts notes that there are four approaches to this topic—a consideration of: 1) the basic requirements of human nutrition, 2) the foodstuffs mentioned in the cuneiform texts, 3) the archaeological evidence, and 4) human remains analyzed through biological anthropology (e.g., human paleopathology). He employs materials from these four approaches in his subsequent discussion. The evidence for the cultivation of barley, wheat, einkorn, legumes, vegetables, herbs and spices, oil plants, and fruits is treated at length and in detail. Distributions of cultivars and drought resistivity are noted, as is the agricultural calendar, systems of weights and measures, and a cuneiform text, “The Farmer’s Instructions.” He summarizes methods of field preparation: plowing (including labor calculations, the use of the ard and draft

animals, plow teams of two teams of oxen, and seeder plows), sowing rates and yields, and animal products (milk, cheese and ghee; fleece and hair; and meat for ceremonies rather than for basic consumption).

Potts begins “Chapter IV: Inedible Natural Resources” (31 pp.) with the notation that “the prevailing view in most general works on Mesopotamia is that the region was essentially devoid of any natural resources other than water, clay, and reeds” (p. 91). He dispels that myth with the results of his synthesis of philological research on cuneiform texts. The archaeological evidence, however, is meager. Animal products including wool textiles, milk, bone, and both wild and domesticated animal leather tanning are characterized. One cuneiform text confirms that at Guabba, located in Lagash territory, one textile factory employed over 6,200 workers—many others had many thousands of laborers. The discussion of mineral resources is brief, but clay, bitumen, limestone, glassy quartz, salt, and several minor minerals are considered. In a section on vegetable products, the timber industry, types of trees, reeds, flax, and econiches (extending from zerophytic uplands to riverine forests and tree plantations) are also reviewed. The reader who wishes to additional, detailed information on these topics should consult P. R. S. (Roger) Moorey’s *Ancient Mesopotamian Materials and Industries* (Oxford: Clarendon Press, 1994), the penultimate resource on that subject.

The subsequent essay, “Chapter V: Watercraft” (16 pp.), concerns much more than reed rafts, plank boats, cargo vessels, and sailing craft, and the fabrication of rope and bitumen caulk. Potts reminds us that in addition to the Tigris and Euphrates rivers, canals were used for both irrigation and transportation, and he elaborates watercraft construction, native typologies, vessel sizes and forms, the iconography of sailing craft, and ship rental. He also discusses canal and river traffic and briefly considers the Gulf region commerce, but ends his discourse by pointing out the need for much additional research by scholars who have knowledge of technical and nautical terminology, and traditional boat building techniques.

In “Chapter VI: Pottery Production” (26 pp.) Potts gives us a brief but elegant discussion of ceramics, placing more emphasis upon function and content as viewed from the consumers perspective than one normally finds in discussions of Mesopotamian pottery. Too frequently, archaeological ceramic assemblages are merely quantified, cataloged, and described but not sufficiently interpreted or compared systematically with other collections. He characterizes the ubiquitous calcium-rich montmo-

rillonite clays and reviews ceramic forms and function and lexical sources. A strength of this chapter is the discussion of the uses of pottery vessels in the production and consumption of beer, wine, oil, milk, and milk by-products. Significant papers in a volume entitled *The Origin and Ancient History of Wine*, edited by Patrick E. McGovern, Stuart J. Fleming, and Solomon H. Katz (New York: Gordon and Breach, 1995), are not cited by Potts but would supplement his presentation.

Much more could be said about clay and non-plastic raw material selection and processing, fabrication, and distribution, although Potts does mention mass production, professionalization, and standardization. He also reviews cuneiform textual evidence for vessel names, volumetric data, and pottery kilns, and calculates production time-labor. The extant literary evidence suggests industrial organization was present by Ur III period (2100 B.C.E.). For additional general sources the reader should consult Dean E. Arnold’s *Ceramic Theory and Cultural Process* (Cambridge: Cambridge University Press, 1985) and Prudence Rice’s *Pottery Analysis: A Sourcebook* (Chicago: University of Chicago Press, 1987). More specific information may be found in an edited work by Dorothea Arnold and Janine Bourriau, *An Introduction to Egyptian Pottery* (Mainz am Rhein: P. von Zabern, 1993), and Moorey’s *Ancient Mesopotamian Materials and Industries*, mentioned above.

Another treatise by Potts, “Chapter VII: Metal Production” (21 pp.), notes that metallic ores are completely lacking in southern Mesopotamia but that a considerable range of metal artifacts, jewelry, tools, and weaponry were fabricated and distributed in that region. He reports the current evidence for the inception of various metal working and metallurgical activities as seen in the cuneiform and archaeological records, including ore sources and extractive processes. Copper, tin (tin-bronze and arsenical copper), silver, lead, iron (meteoric and terrestrial) and gold sources and workshops are characterized, and important archaeometallurgical research by James Muhly is reviewed. The source of tin, alluvial deposits of cassiterite from several possible loci—Meluhha (the Indus Valley?) and Bactria-Daghestan—are explicated. A highlight of the chapter is the candid discussion of the metals-based equivalency standards and their considerable fluctuations through time, and his conclusions about commercial, military, and diplomatic efforts that were expended to acquire metals. Potts also makes a plea for further collaborative efforts between metallurgists and archaeologists to better understand metal procurement and production in southern Mesopotamia.

With “Chapter VIII: Some Material Correlates of Religious Life” (23 pp.), the author relates the artifactual evidence affiliated with the polytheistic beliefs of Mesopotamian religion. Evidence from divine symbols and images, iconography, cuneiform citations, and religious architecture are reviewed. The relationships of king and commoners to deities, shrines, and temples are summarized, and Mesopotamian temple plans and characteristics are seen to parallel the Christian Nestorian church. In the closely affected “Chapter IX: Kinship in an Urban Society” (12 pp.), Potts writes about human social organization as known from the cuneiform tablets and archaeological data from both the third and the second millennia B. C. E. He concentrates initially upon the Sumerian nuclear family (patriarchal and patrilineal), types of households and kinspersons, kinship terminology, marital regulations, and descent systems (lineage structures were not present). In the second millennium, because of a presumed “infiltration of West Semitic-speaking Amorites from the Syrian desert region” (p. 211), the social structure changed. The literary texts and Hammurapi’s and other codified laws now identify named ethnic groups, exogamous marital patterns, dowries and their material culture contents, and mores and social values—such as prostitution and death penalty for adultery. The evidence for the *batum* (a corporate kin group), urban neighborhoods, and descent and affiliation are reviewed. This chapter might have benefited from additional considerations of the sociopolitical relationships of kin groups to the monarchy and the priesthood. Potts’ synthesis includes recent interpretations suggested by Norman Yoffee, but the subject is extremely complex and requires, Potts observes, an integrated cross-cultural approach by anthropologists and historians.

“Chapter X: Mortuary Practices” (16 pp.) elucidates the physical dimensions of burial practices in Mesopotamia. Potts begins with an analysis of spiritual concerns and the underworld as stipulated in literary texts and then he combines cuneiform and archaeological evidence to consider the preparation of the body and specifics about ritual offerings made to statues of the deceased, grave goods (furnishings, artifacts, food, etc. included with the corpse), and ceremonies. Proper burial of an individual was of paramount importance for entry into the netherworld. Potts describes the physical context and considerable variations of burials: pit graves, jar burials, coffins, sarcophagi, cists, and tombs. Burial loci ranged from interment under one’s house to large cemeteries.

In “Chapter XI: Functional Aspects of Writing and Sealing” (18 pp.) Potts reviews the physical and chronological evidence for the earliest writing, numerical notation systems (thirteen different number systems existed fall into five major categories), and the practice of sealing official documents with a stamp. The studies of glyptic style and iconography on seals have recently given way to functional analyses—for example, doors, jars, commercial receipts, texts, and official documents were sealed. Potts also reviews the later use of cylinder seals, ownership (scribes and officials had seals but not everyone necessarily owned one). The use and controversial interpretations of ceramic tokens as elaborated by Denise Schmandt-Besserat are, unfortunately, not discussed.

The next contribution, “Chapter XII: East Meets West” (22 pp.) covers the first three millennia B.C.E. and is essential reading for students of ecology, flora, and faunal studies, as well as historians and archaeologists. Potts summarizes the most recent chronological data, and evidence for the introduction, adaptation, and distribution of major flora and fauna in southern Mesopotamia. Among the animals he considers: Zebu bull, water buffalo, rhesus macaque (monkey), Indian elephant, house or black rat, and Indo-Pacific mollusca (as shells rather than a food resource). The flora discussed include: cloves (from the Moluccas, ca. 1700 B.C.E.), cotton (from Bahrain/Dilmin and Pakistan), cucumber, and rice (ca. 750 B.C.E.). In addition he reviews data on semiprecious stones—carnelian and lapis lazuli—and tin (probably derived as ore from the Ferghana Valley of Central Asia [contrast *supra*.]). Potts concludes, correctly, that we have underestimated both the degree and intensity of commercial contacts between southern Mesopotamia and other regions of the Asian continent.

In “Chapter XIII: West Meets East” (26 pp.), the author reflects on the contacts between southern Mesopotamia and the “West”—in the main the Greeks—during the first millennium B.C.E. Brief sections are devoted to Babylon and the period before Alexander the Great (331 B.C.E.), but the major discussion involves the results of the so-called “Hellenization of Mesopotamia”—characterized as barely successful in most regions to the establishment of full-fledged Greek settlements in other areas. However, Potts challenges this view, concluding that the Hellenization was a “hollow claim” but that selected elements of Greek culture were diffused, adopted, and adapted. Potts also reviews the evidence from Greek and Roman writers (Xenophon, Arrian, and Quintus Curtius, for example), cuneiform texts in Seleucid Babylonian, and archaeological data in considering the founding of Seleucia-on-

the-Tigris (with its rectilinear Greek city plan), and the creation of other major centers (Uruk, Larsa, and Nippur) under Alexander and his Seleucid successors. Greek civil administration and political and religious architecture are emphasized, but the author also reflects upon migration and colonization, Greek ceramic forms and the proliferation of new pottery types, and modifications of local ceramic traditions.

The author's final essay, "Chapter XIV: Some Reflections" (6 pp.), is not a summary of the foregoing but includes his thoughts about the current status and future prospects of Mesopotamian scholarship. Potts contrasts the Hollywood-like popular perception of Mesopotamia with both the older and newer scientific research on the subject. He notes, for example, that the traditional or "elite domains" (such as literature, astronomy, astrology, religion, and law) have now been joined by what were formerly "peripheral subjects" (environmental, floral, and faunal studies; aspects of subsistence and artifact production and exchange; and materials science research, for example) to create a more holistic approach to Mesopotamian studies. The pros and cons of cross-cultural research, archaeological anthropology, and ethnographic analogies are also reviewed. R. McAdams is credited with exemplary work whereby archaeological research is informed by cuneiform text analyses. Lastly, Potts contends that archaeologists, Assyriologists, and natural scientists must continue to cooperate and expand interdisciplinary studies.

How does *Mesopotamian Civilization* compare to other similar works? Unlike the older "standards" such as Samuel Noah Kramer's *The Sumerians* (Chicago: University of Chicago Press, 1963) and Leo Oppenheim's revised edition of *Ancient Mesopotamia* (Chicago: University of Chicago Press, 1977), which perceived archaeology as a handmaiden to obtaining texts on clay tablets, Potts has succeeded in blending geographic and environmental data with cultural and historical information, and melded cuneiform textual analysis with the material culture concerns of archaeologists. Certainly, there is a paucity of general works which focus upon the material basis of Mesopotamian society from archaeological and philological perspectives. No other general work takes the multifaceted perspective Potts has, except for recent volumes published by Postgate and Moorey-J. N. Postgate *Early Mesopotamia: Society and Economy at the Dawn of History* (London and New York: Routledge, 1994) and P.R.S. Moorey's *Ancient Mesopotamian Materials and Industries* (Oxford: Clarendon Press, 1994).

Michael Rice, an Egyptologist and museum planner who has published extensively on Bahrain/Dilmun, wrote *The Archaeology of the Arabian Gulf, ca. 5000-323 B.C.* (London and New York: Routledge, 1994). In this comprehensive review, Rice includes Kuwait, eastern Saudi Arabia, Bahrain, Qatar, the United Emirates, and northern Oman. Following a brief discussion of ecological factors, including climate and sea-level changes, his emphasis is on the sea trade routes of the Gulf and its political and economic role as a channel for regional commerce. Rice pays particular attention to Sumer and Dilmun in his synthesis. Hans J. Nissen, Professor of Ancient Near Eastern Archaeology at the Free University of Berlin, is the author of *The Early History of the Ancient Near East, 9000-2000 B.C.* (Chicago: University of Chicago Press, 1988), translated from the German edition by Elizabeth Lutzeier, with emendations by the author. Nissen's settlement pattern overview covers seven millennia and considers from a chronological perspective the evolution of early sedentary lifeways, isolated settlements, towns, and the formation of city states and territorial states. His emphasis is on settlements and behaviors as deduced from material culture analyses and written records in his broad coverage of the prehistoric and literate periods.

A chronological approach to settlement history and adaptive lifeways within a geographical-environmental context is the focus of David H. Trump's *The Prehistory of the Mediterranean* (New Haven and London: Yale University Press, 1980). Trump, Staff Tutor at Cambridge University, who has conducted excavations in Italy, Malta, and Sardinia, employs own research in this regional synthesis. Chronologically, the work covers the Lower Paleolithic through the Classical world, with emphasis on the fifth through first millennia B.C.E. A strictly ecological approach is exhibited in *Islands in Time: Island Socio-geography and Mediterranean Prehistory* (London and New York: Routledge, 1996) by Mark Patton. [Reviewed in CHOICE 34(7):1202, March 1997.]

Potts self-critiques his "admittedly imperfect attempt to bridge the gap between Assyriology and Mesopotamian archaeology" (p. viii). He is especially uneasy that he has concentrated upon southern Mesopotamia (the area of the best documentation) to the exclusion of the Assyrian north. Likewise, he laments being ill equipped to prepare a holistic "ethnography of Mesopotamia." It is this reviewer's opinion that he has been extremely successful in assisting the reader to comprehend the environmental and cultural complexities of southern Mesopotamia. He has integrated sources and

topics that had not been synthesized previously in any other consideration of the third millennium B.C.E. Potts' volume is preferable to Rice's book.

Nonetheless, there is a notable disjunction between Chapters I through VII, which collectively characterize the environment, population, resources, and material culture production (the material infrastructure), and Chapters VII through XI, which emphasize cultural practices (religion, social and political structure, mortuary activities, and writing and sealing). However, Chapters XII and XIII contrast sharply with their Chapter VIII through XI precursors—certainly in terms of chronological coverage (third millennium for the former, versus second and first millennia B.C.E. for the latter)—but also in chapter format or structure and, as would be expected, the increased use of archaeology informed by cuneiform studies through time. Chapter XII (“East Meets West”) documents animal, vegetable, and mineral introductions and exploitations in contrast to the subsequent unit, “West Meets East,” where the Greek cultural elements and adoptions are emphasized. These two chapters are similar to the traditional textbook treatments found in Postgate, Rice, and Nissen noted above.

In sum, *Mesopotamian Civilization: The Material Foundation* is a rich and valuable resource that has, indeed, characterized the foundations of southern Mesopotamian civilization. The author has responded admirably to the need, he himself perceived in 1993, that archaeological and philological evidence must be interrelated to present a cogent picture without creating a “great civilization” book which overemphasizes

art history, architecture, and literature to the exclusion of comprehending environmental variables, parameters, and limitations. Potts could have integrated the three groups of chapters considered above, especially smoothing the transition from the third millennium sociocultural discussions of Chapters VIII through XI with the more recent millennia considered in Chapters XII and XIII. And he might have demonstrated more persuasively how environmental variables related to socioeconomic and politico-religious structure in southern Mesopotamia during the last two millennia B.C.E.

This volume reminds your reviewer of the early and ultimately successful efforts of William Sanders to integrate environmental, archaeological, and archival data within framework of cultural ecology and anthropological archaeology for three millennia in the Basin of Mexico, witness *Mesoamerica: The Evolution of a Civilization* (William T. Sanders and Barbara J. Price, New York: Random House, 1968), and *The Basin of Mexico: The Cultural Ecology of a Civilization* (William T. Sanders, Jeffrey R. Parsons, and Robert S. Santley, New York: Academic Press, 1979). Daniel Potts has prepared an excellent synthesis which must be recommended to students and scholars concerned with environmental parameters and ecological studies, the prehistory and history of Southwest Asia, and the rise and demise of civilizations.

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