

## BOOK REVIEW

*Technology of the Ancient Near East: From the Neolithic to the Early Roman Period.* By JILL BAKER. London and New York: Routledge, 2019. Pp. xiv + 326. Paperback, \$39.95. ISBN: 978-0-8153-9369-6.

The advancement of technology has always played a crucial role in every aspect of human life – from the invention of the plow to the smart phone. In recent years, the study of ancient technology has become increasingly popular, and many universities offer courses in this field. Although excellent handbooks have been produced (e.g. Humphrey [2006] *Ancient Technology* and Oleson [2008] *The Oxford Handbook of Engineering and Technology in the Classical World*), they are often too technical for undergraduate students and focus mostly on ancient Greece and Rome. Jill Baker succeeds in filling this lacuna by making the material accessible to students at all levels and by concentrating on the Near East (Mesopotamia, Egypt, Canaan and Anatolia) from the Neolithic to the early Roman period (ca. 8500 BCE -132 CE), where many technologies were first developed.

The book is organized into chapters that either cover a specific type of material or a field in which technology is used. The volume begins with an interpretation that early stone age technology demonstrates a level of problem solving not usually associated with early hominids. With an increase in sedentary dwellings, demand rose for new advancements in technology in all fields.

Stone use is expanded on in the next chapter, followed by several chapters on other types of materials (wood, metals, bonding agents, textiles, ceramics, glass, food). Most chapters have a general discussion on the various materials, with a list of Near Eastern sites where these materials are found or used. The information is useful, but is sometimes too cursory for a textbook specifically on technology. In fact, *A Companion to the Archaeology of the Ancient Near East* (Potts 2012) provides a more detailed exposition of materials and their uses in technology. Furthermore, many students taking ancient technology courses are especially interested in learning more about how large monuments like the Great Pyramids were built. Pyramids are mentioned in several different places in reference to the material used in

their construction and to lifting devices, but there is no cohesive explanation on how they may have been erected. Chapter 5 on metal is more successful, in that it goes beyond a general commentary by using evidence from mining villages excavated in Timna (Israel) to delve deeper into the life of someone working in metal extraction and production.

Along the same lines, many of the chapters that engage with specific industries, particularly those that less frequently appear in technology studies, are very effective. For example, an interesting discussion in Chapter 7 on machines and energy explains how physicians employed electricity from fish to treat ailments of the body. Medical treatments are also presented in Chapter 13, which contains detailed descriptions of medical treatises and handbooks. Information is also included from Egyptian tombs belonging to physicians that allows the reader to explore the gender and status of people in this profession. Similarly, Chapter 10 mentions how approximately 23,000 tablets from Turkey containing contracts and inventories related to textile production, demonstrate that women were not only literate, but also that they were managing textile operations.

Baker is also effective in Chapter 9, where she provides detailed narratives on warfare technology that allow even someone with a limited background in the topic to envision what weapons looked like, how they worked and how they influenced battle strategy. Water management is a subject often addressed in technology manuals, but Baker offers fascinating information on lesser known devices, including the nilometer, which is a shaft for measuring floodwaters for taxation purposes in Egypt. She also demonstrates how ancient mechanisms, such as water filtration systems, can inspire modern applications. One egregious error that cannot be overlooked, however, relates to the operation of Roman-style baths. The author states that “hot rooms were heated by the hot water that flowed through the pipes in the walls and floors,” (169) rather than by heated air that moved through hollow spaces in walls and floors.<sup>1</sup> Fortunately, Chapter 14 on daily life technologies discusses hygienic practices further, and it includes valuable accounts on the origin of toiletries, such as soap, toothpaste and shaving implements. The production and use of wigs and explanations of contraceptive and abortive devices also make this chapter an important contribution to the study of technologies for quotidian use.

<sup>1</sup>For general information on heating systems in Roman baths, see F.K. Yegül, *Baths and Bathing in Classical Antiquity* (New York: Architectural History Foundation) 1992; and *Bathing in the Roman World* (Cambridge: Cambridge University Press) 2010.

The book concludes with a general summary focusing on the driving factors of technology: climate change, conflict and the accumulation of wealth.

Baker should be commended not only for bringing attention to technologies from the Near East, but also for highlighting different types of technologies that had an impact on daily life. The biggest challenge for the reader unfamiliar with this region is that many sites are mentioned with no location. Placing the sites on accompanying maps would have alleviated this issue, while allowing more scholarly readers to make conclusions on the spread of specific technologies over various terrains. Additionally, all of the photographs are black and white and most are too small to see, rendering many of them useless. The font is also very small, suggesting that the editors shrunk the book down from what the author intended. Despite a few shortcomings, this textbook is a valuable addition to the fields of ancient technology, Near Eastern studies and archaeology, and I intend to assign sections of it in my own ancient technology courses.

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