

This is the first page only. On how to acquire the full article please click this link.

Building a Roman bath for the cameras

Fikret Yegül with Tristan Couch

with contributions by Teoman Yalçinkaya

Between September 20 and November 6, 1998, a team of scholars and specialists built a small but fully functional Roman bath at Sardis. The project was conceived and sponsored by NOVA, the technology arm of WGBH Educational Television Network. Each step in the process was recorded on film for a mini-series. Using the tools and materials available in antiquity, the series aims to duplicate ancient technological feats. Previous programs include the building of a scaled-down pyramid in Egypt, investigating the kind of awning that covered the Colosseum, and building a *trebuchet*, a mediaeval siege-catapult. As a rare example of a full-scale re-creation of a Roman bath, the Sardis experiment occupies a unique niche in the collaboration between classical scholarship and modern media.²

From the lofty position of specialists in Roman baths, NOVA's proposition that the workings of Roman baths are only partly or vaguely understood appears exaggerated. Broadly speaking, we know perfectly well — or we think we do — how Roman baths were designed, built, and operated.³ Yet, if we disregard the title *Secrets of Lost Empires* and concentrate on the substance, to dismiss it out of hand might be rather short-sighted. For in designing the floor and wall heating-systems, in assuring that the flues created sufficient draft for the proper working of the furnace, in working out certain construction details, and in manufacturing custom-made Roman bricks and tiles, we encountered problems for which our archaeological expertise had not prepared us: we then had to make difficult, but ultimately instructive, choices based on our best assumptions, rather than on published scholarly work.

Relying on a team of experts and serious amateurs, and balancing academic knowledge with traditional skills and common sense, the educational aims of NOVA for this project appeared appropriately public-minded and sensible:

Our goal in this program is to gain new insights into these and other questions by filming a team of architects, archaeologists, historians, plumbers and building engineers as they attempt to construct a miniature bathhouse near one of the most important archaeological sites in Turkey. We will chronicle each step in the construction process. As the walls go up, they will be lined up with temperature and humidity gauges, allowing us to obtain precise measurements of the completed bath's performance. Thermographic imaging will show how evenly heat is being distributed and reveal any areas where turbulence or blockage occurs. We will measure how much fuel (wood) must be burned to achieve optimum temperature. In the final scene of the film, our experts will all test how our small replica measures up by taking a bath just as the Romans would have two thousand years ago.⁴

Unlike the excavation of an ancient structure, which is a reverse interpretative process that can mask and obliterate the very answers it seeks, the re-creation or replication of a model from its constituent parts, whether physically or by computer modeling, could help us to under-

1 M. J. Fisher and D. E. Fisher, *Mysteries of lost empires* (London 2000).

2 It is estimated that about 5-6 million people have watched the NOVA Roman Bath program since its first airing in 1999. All of the programs (Colosseum, Pyramid, Stonehenge, Inca, Obelisk, Medieval Siege, Pharaoh's Obelisk, Easter Island, Roman Bath and China Bridge) are available on videocassettes, and can be ordered through www.wgbh.org.

3 From the vast bibliography I cite only J. DeLaine, "Recent research on Roman baths," *JRA* 1 (1988) 11-32; ead., *The Baths of Caracalla in Rome* (*JRA Suppl.* 25, 1997); ead. and D. E. Johnston (edd.), *Roman Baths and bathing* (*JRA Suppl.* 37, 1999); A. Farrington, *The Roman baths of Lycia* (Ankara 1995); P. Gros, *L'architecture romaine* vol. 1 (Paris 1996) 388-417; I. Nielsen, *Thermae et balnea* (Aarhus 1990); F. Yegül, *The bath-gymnasium complex at Sardis* (Cambridge, MA 1986); id., "The small city bath in classical antiquity and a reconstruction study of Lucian's 'Baths of Hippias,'" *ArchCl* 31 (1979) 108-31; id., *Baths and bathing in classical antiquity* (New York 1992).

4 NOVA, Memorandum to the Department of Antiquities, Ministry of Culture, Republic of Turkey (August 1997).