and parallels that are missing from the rest of the book. Her discussion also demonstrates how difficult it is to date stylistically the often-eclectic monuments in southern Anatolia between ca. 100 B.C. and A.D. 120 (L. Vandeput's article on this question in *Sagalassos* III, 129–36, is more optimistic).

The second century saw the most profound changes. A monumental colonnaded street, with arches at either end and accented with statues of civic benefactors, led east past regular blocks of courtyard houses to the forum, overlooked by the theater. A propylon framed the north approach, with a grand staircase passing to a paved area that covered a suite of 16 underground cisterns. The water may have fed a bath house south of the forum, the interior of which was stocked in the mid-third century with statues of gods and local elites in the guise of goddesses. Because of a lack of evidence for heating arrangements in the main hall, Mitchell suggests (156) that it was converted into a "sculpture gallery" for more restricted elite display. This argument ignores the bath as the quintessential public building and art gallery of the Middle Empire. The main hall was probably the frigidarium, the place for cold-water basins and fine decor. The heated room was attached on the southwest corner, with impressions for the steam *tubuli* still visible in its walls. A picture thus emerges of architectural and sculptural display progressing into the heart of the city according to a rising level of prestige: from the elite images and dedications along the colonnaded street, to buildings for public business, socializing, and entertainment, decorated with the images of gods and citizens as gods, and finally up another dramatic street to the old agora, hemmed in by shrines to the preeminent deities, the emperors.

The sixth chapter best exhibits the volume's marriage of archaeological evidence and historical questions. Siege mounds and walls, artillery platforms, and an inscription by the provincial governor to the emperor Probus confirm the Roman defeat of a local revolt in A.D. 278, known only from dubious sources such as Zosimus and the *Historia Augusta*. This action sheds new light on Roman military motives in southern Anatolia in the late third century, especially as a case study of the tense interplay between endemic banditry, local independence movements, the internal maintenance of Roman hegemony, and the preservation of external imperial borders (see D. Kennedy ed., *The Roman Army in the East*, Ann Arbor 1996). Late fourth-century inscriptions from Sagalassos (*Sagalassos* III, 115–25) suggest that Pisidia's military role was often reprised.

Cremna prefers the big picture, partly to appeal to a wider audience, partly to fill out sketchy details. This is a perspective often missing from larger projects. For Cremna's larger neighbor to the north, *Sagalassos* III presents a more traditional format: reports on survey and excavation undertaken in 1993 (part I), followed by specialist studies of architectural investigations and restorations (part II), ceramics (part III), archaeometallurgy (part IV), small finds (part V), and palaeoecology (part VI). With copious (sometimes superfluous) illustrations and tables, these studies update articles in *Sagalassos* I–II, but are not integrated into a larger vision of the project or a summary of progress. Emblematic is the absence of an overall site plan, available only in the first volume.

A significant oversight (at both Cremna and Sagalassos) is the lack of any intensive field survey. The opening article in *Sagalassos* III does discuss the findings of a one-week survey in the city's hinterland, but no methodology is presented, and coverage seems limited to existing communication routes. The final section of the volume presents palynological, geomorphological, and palaeofaunal studies, but no indication is given of how these data will be linked to other fieldwork. If the Pisidians are to be understood beyond the splash of their Hellenized urban centers, the full spectrum of city and countryside will require systematic investigation.

The most important contributions of the Sagalassos project lie in its architectural and scientific analyses. The clearing of the upper and lower agoras and their dependencies continues to reveal a complex pattern of public spaces that manage the topography of the site to spectacular effect. In more practical and efficient fashion, we can now see how aqueducts negotiated the terrain into Sagalassos (E.J. Owens, pp. 91–113; see also *Cremna*, ch. 5). Instructive engineering details are provided by the graphical and physical restoration of the fountain house below the library.

The potters' quarter above Sagalassos preserves kilns and a complete range of products that are invaluable for understanding regional ceramic technique, chronology, and distribution. Papers concerning methodology, the dating of fine and coarse wares, pottery firing temperatures, and geochemical trace elements in the clay are providing the groundwork. Proximate to the potters' quarter there is evidence for iron and steel production; the mineralogical and technological analysis of slag (273–91) promises important contributions to our knowledge of Roman metalworking, especially in Anatolia; one awaits the location and excavation of the furnaces.

A crucial problem of archaeological publication, posed explicitly by *Cremna* and inadvertently by *Sagalassos* III, is how to reconcile scholarly thoroughness and a broad comprehensive story that can be digested by nonspecialists, even the general public. Given the widespread availability of the Internet, a dual approach may be endorsed, whereby specialist reports continue to be published (and archived) on paper, while inexpensive, accessible, and revisable summaries appear on line. As these two volumes demonstrate, we need both perspectives in order to maintain a balanced view of antiquity.

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PISCINAE: ARTIFICIAL FISHPONDS IN ROMAN ITALY, by *James Higginbotham*. (Studies in the History of Greece and Rome.) Pp. xix + 284, figs. 109. University of North Carolina Press, Chapel Hill 1997. $49.95. ISBN 0-8078-2329-5.

This long-awaited study vividly illustrates how the function and popularity of artificial fishponds (*piscinae*) mir-

rored social and political trends of the Late Republic and Early Empire in Roman Italy. By that time, the cultivation of salt- and freshwater fish by the owners of seaside villas had come to symbolize extravagance and private *luxuria* in the literary tradition of the Republic. Because of the enormous expense of constructing and maintaining these fishponds, their history is peopled by some of the more colorful figures of Roman aristocratic society, several of whom acquired piscine nicknames or bizarre reputations for their flamboyant pursuit of this hobby.

Chief among these was L. Licinius Lucullus, the consul of 74 B.C., who became fabulously wealthy in the East. According to Plutarch, Lucullus had ringed his villas near Naples with seas and streams for breeding fish and was called *Xerxes togatus* for having linked his piscinae to the sea with a channel. Pliny the Elder records that the entrepreneur L. Sergius Orata gained fame for designing ponds for oyster beds, though Varro believed he had invented ponds for cultivating *auratae*, or porgy fish, from which he acquired his cognomen. Pliny also credits Lucullus's legate in the East, L. Licinius Murena, with the invention of piscinae for all kinds of fish, though his cognomen suggests a particular affinity for eels. Eels, in particular, spawned the most eccentric behavior in *piscinarii*, the owners of fishponds. The orator Q. Hortensius reputedly fell so in love with one of his that he wept upon its demise, while M. Licinius Crassus is said to have reacted in a similar fashion to the death of his eels. Finally, there is P. Vedius Pollio, a contemporary of Augustus, to whom are ascribed the celebrated ruins of the *villa marittima* at Pausilypon and who reportedly derived his amusement from throwing errant servants into his eel ponds and watching them be torn apart.

These anecdotes provide a lively literary and historical backdrop to the careful study of the archaeological remains of piscinae presented in this book. As the author rightly points out, the agricultural handbooks are of little value in the study of ancient pisciculture: Varro seems more intent on railing against the excesses of piscinarii, Pliny the Elder is anecdotal yet informative about the various species of fish, while Columella offers only limited practical advice on fishpond design and management. It is therefore necessary to supplement the literary sources with a detailed examination of the archaeological remains in order to comprehend fully the practice of artificial fish breeding among the Romans and how it evolved over time.

The book is divided into two principal parts: an introductory survey of all aspects of Roman pisciculture, and a detailed gazetteer of the physical remains of piscinae. The survey begins with a chapter on fishpond construction and operation that introduces most of the general features of piscinae, including siting, hydraulics, and design. A second chapter catalogues the variety of fish known to have been bred in these ponds and includes much of the anecdotal material about the popularity of the individual breeds among the Romans. The third chapter, "Roman Fishponds as Emblems of Social Status," is a fascinating appraisal of the ways in which the popularity of piscinae mirrored cultural trends among the elites, from serving as symbols of success and excess in the power struggles of the Late Republic to acting as decorative ornaments for the private banquets of the Early Empire, when piscinae had become more socially acceptable. These changes were helped along as well by technological advances in that aqueducts and the adoption of new methods of construction significantly reduced the cost of constructing and maintaining piscinae and made them accessible to a broader spectrum of society.

Given this rough chronological framework for the architectural development of piscinae over the period covered in this book, the geographical organization of the individual examples in the gazetteer is somewhat frustrating. This catalogues the 56 best-preserved remains in Italy, starting from the island of Pianosa in the north and ending at Paestum in the south, though the lion's share is from the Bay of Naples region. Each clearly written and concise entry is the product of thorough in situ examination of the remains, except where these are poorly preserved or inaccessible, and most are supplemented by a useful plan and/or photograph. All seemingly were written more from the viewpoint of the fish than the *piscinarius* in that they highlight features like shaded recesses or rock-cut channels that were intended to improve conditions within the pond. Some attempt is made to relate the piscinae to their architectural setting, an approach that is particularly effective with the villa of Quintilius Varus at Tibur. Since locating any site referred to in the introductory material requires consulting the index, however, a typological or chronological catalogue might have been more effective. In particular, the gazetteer's organization obscures the clear differences between the more "industrial" piscinae at Torre Astura and the more "decorative" pond of the house at Regio VIII.2.14 at Pompeii. A clearer distinction could be drawn as well between fishponds found in private villas and those associated with public and religious sites, such as the sanctuary sites at Paestum and the so-called Palaestra at Herculaneum.

Nevertheless, this book brings together an impressive array of literary and archaeological material and constitutes the definitive study of this unique architectural form in Roman Italy. The University of North Carolina Press has produced a handsome and copiously illustrated volume.

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UNTERSUCHUNGEN ZU DEN GLÄSERN UND GIPSABGÜSSEN AUS DEM FUND VON BEGRAM (AFGHANISTAN), by *Michael Menninger*. (Würzburger Forschungen zur Altertumskunde 1.) Pp. 257, pls. 62, map 1, plan 1, table 1. Ergon, Würzburg 1996. DM 89. ISSN 1432-0320; ISBN 3-928034-96-0.

Begram, 60 km north of Kabul, stands at the junction of two ancient caravan routes: an east–west route between the Mediterranean and India, and a north–south route from China. The site was identified by Foucher as Kapisa, the summer residence of the Kushan kings. His identification is generally accepted.