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.

A French expedition excavated at Begram between 1936 and 1942. The most spectacular discovery, in 1937 and 1939–1940, was a cache of bronze, rock crystal, and glass objects, and plaster casts for silversmiths, evidently from the Mediterranean; ivories from India; and lacquer from China. The cache was found in a fortified enclosure, which the French named the Nouvelle Ville Royale, in two adjoining rooms (10 and 13) of what is usually described as a palace. Each room had a single entrance from elsewhere in the building, and a connecting doorway. All three openings had been blocked, as if to protect the objects from discovery.

In his first report on the cache, published in 1939, Joseph Hackin maintained that the objects from room 10 range in date between the first and the early fourth centuries A.D. Subsequent writers have modified these dates, but most agree that 200–300 years separate the earliest and the latest objects. The cache has been explained as part of the palace treasury, as the contents of a customs house, and as a mixed hoard of treasures and accessories from the palace workshop.

In 1941–1942, Roman Ghirshman attempted to establish the sequence of events at Begram. He divided the occupation into periods I, II, and III, attributing the palace to period II and the cache to the end of this period. In Ghirshman's view, period II ended when Begram was sacked by the Sasanians in or immediately after 241: *Bégram: Recherches archéologiques et historiques sur les Kouchans* (Mémoires de la délégation archéologique française en Afghanistan [MDAFA] 12, Cairo 1946). This is widely accepted, although the evidence for the destruction of the site by the Sasanians is entirely circumstantial.

In the volume under review, Michael Menninger describes and discusses two groups of objects from the cache: the glass and the plaster casts. His task was not easy. The excavators deposited the majority of the finds in the Kabul Museum and these, of course, were inaccessible. Perforce, therefore, Menninger relied on the selection of finds preserved in the Musée Guimet, Paris, on photographs in the archives of the Musée Guimet and the Deutsches Archäologisches Institut in Rome, and on publications, notably two reports on the excavation by J. Hackin (*Recherches archéologiques à Bégram* [MDAFA 9, Paris 1939] and *Nouvelles recherches archéologiques à Bégram* [MDAFA 11, Paris 1954]), and three articles on the glass by Pierre Hamelin (*CahByrsa* 2 [1952] 11–25; 3 [1953] 121–28; 4 [1954] 153–83).

The cache contained some 180 glass vessels (Hamelin, *CahByrsa* 3 [1953] 128, listed 179 objects, but many are so fragmentary that the number cannot be confirmed) and 55 plaster casts (Hackin 1954, pp. 265–75). Menninger divides the glass into 13 groups (group 9 in fact consists of a single object of rock crystal). Few, if any, will disagree with his conclusion that groups 1–8 and 13—they include mosaic glass, ribbed bowls, and facet- and relief-cut glass—were made in Roman workshops between the late first century B.C. and the early second century A.D. Groups 10–12, however, are problematic. Group 10 consists of vessels with cold-painted and/or enameled decoration. These include beakers decorated with a variety of scenes, including the duel between Hector and Achilles, the Rape of Europa, and Isis and her attendants; presumably, they were made in Egypt. Although Menninger attributes them to the third century, several have a feature that sets them apart from third-century beakers: a ledge above the foot. This feature is typical of late first- to early second-century beakers decorated with facets (cf. A. Oliver, Jr., "Early Roman Faceted Glass," *JGS* 26 [1984] 35–58, group II). Group 12 contains two objects with openwork: a small fragment decorated with an animal (Hackin 1939, p. 43, fragment e) and four larger fragments of a beaker decorated with three boats and a building surmounted by a statue of Poseidon, usually identified as the lighthouse at Alexandria. Again, Menninger prefers a third-century date, although the vessel's narrow, conical form is closer to that of the openwork beaker from Nijmegen (which is Flavian) than to the broader, bell-like form of the fourth-century cage cups (e.g., *Glass of the Caesars* [Milan 1987] 239–49, nos. 134–35, 137, and 139).

The most puzzling glasses belong to Menninger's group 11: 26 beakers and amphoras, 22 vessels in the form of a fish, and five vaguely boat-shaped vessels (all told, almost 30% of the glass vessels in the cache), with copious trailed openwork. Menninger likens this effect to the trailing on the Disch Cantharus (a Roman object of the late third to early fourth century) and he compares the "boats" to a Roman vessel found at Martigny, Switzerland, in a second-to third-century context. These parallels, however, fail to convince. The trails of group 11 are applied in patterns that differ from the design of the Disch Cantharus (cf. pls. 23.1 and 23.3) and the construction of the trails on the boats is unlike that on the boat from Martigny (cf. pls. 25.2 and 25.3). Moreover, the fins of the fish were applied and pincered in a way that, as far as I am aware, has no Roman parallel (cf. pls. 24.2 and 24.3). In view of these differences, I see no reason to suppose that the objects in group 11 were made either in the third century or even in the Roman empire.

Menninger devotes the second half of the book to a study of 52 plaster casts. Unlike most of the other objects in the cache, these were not luxury items; they were patterns for gold- and silversmiths. Forty of the casts represent emblemata from open vessels, nine were taken from the walls of cups, and there are single examples of an attachment, a statuette, and the foot of a life-size statue. It is impossible to determine when the casts were made. The originals, however, probably ranged in date from the second century B.C. to the Julio-Claudian period, half of them being Augustan. It is universally accepted that the originals—and, presumably, the casts—were made in the Mediterranean region. Their presence at Begram suggests that they were the kind of object that inspired local craftsmen to copy western motifs and adopt them into the repertoire of Gandharan art.

Menninger takes a conservative view of the date at which the cache was concealed. He believes that the glass in groups 10–12 compels us to accept a date in the third century and that no good reason exists to doubt Ghirshman's con-

clusion that the end of Begram II and the concealment of the cache were due to the Sasanian invasion of the 240s. Menninger supports this view by repeating Ghirshman's statement that deposits attributed to Begram II contained coins of the Kushan king Vasudeva I, whose reign, Ghirshman believed, ended with the Sasanian invasion. Vasudeva I, however, probably reigned in the second century (see below), and in any case Ghirshman seems to have included in period II all deposits that were sealed by period III, but which were not necessarily contemporary with the *occupation* of period II.

Indeed, a rather different picture emerges if we concentrate on the excavation of the cache itself. Hackin (MDAFA 9 [1939] 10; 11 [1954] 309–11) reported the discovery of three coins in room 10, and 21 coins in room 13. In room 10, the coins (one of Kanishka and two unidentified) were directly associated with the cache; but in room 13, this was not the case. We have no record of the stratigraphy in room 13, but the excavators did record the depths below the surface at which many of the objects were found. Fourteen of the coins were discovered at a depth of 2.10 m or less and seven at a depth of 2.40 m or more. Most of the objects in the cache were encountered at a depth of at least 2.50 m. Nine coins were identified: six of Vasudeva I (found at a depth of 1.80 m) and one each of Gondophares (found at 2.55 m), Kujula Kadphises (2.10 m), and Wima Kadphises (2.50 m). Thus, the only identifiable coins, found in room 13 at a depth comparable with that of the cache, were those of Gondophares and Wima Kadphises.

The dates of some of the coins are controversial. The Kushans reckoned their chronology from the beginning of the reign of Kanishka, who is documented in years 1–23 of the new era. Recent estimates of the A.D. equivalent of year 1 vary between 78 and 232. If we accept Joe Cribb's estimate (in E. Errington and J. Cribb eds., *The Crossroads of Asia: Transformation in Image and Symbol in the Art of Ancient Afghanistan and Pakistan* [Cambridge 1992] 17–18) of some time between about 90 and 110, Kanishka was on the throne for at least part of the first quarter of the second century. Vasudeva I was ruling in years 64–99 of the era of Kanishka, i.e., about A.D. 164–199. Gondophares reigned from about A.D. 20 to 46 or later, Kujula Kadphises may have been ruling in A.D. 67 and 79, and the reign of Wima Kadphises ended before the accession of Kanishka.

These observations lead to the conclusion that the only identified coins that were, or may have been, associated with the cache were those of Gondophares and Wima Kadphises, who ruled in the first century A.D., and Kanishka. The coins of Vasudeva I were not buried until some 0.7 m of deposit had accumulated above the cache; they may, therefore, be significantly later than the cache itself.

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UPPER ZOHAR: AN EARLY BYZANTINE FORT IN PALAESTINA TERTIA. FINAL REPORT OF EXCAVATIONS IN 1985–1986, by *Richard P. Harper*, with contributions by *Gillian Clark*, *Tony Grey*, *Sheila Boardman*, *Paul Croft*, *Omri Lernau*, *David S. Reese*, and *Joe Zias*. (British Academy Monographs in Archaeology 9.) Pp. ix + 161, pls. 42, figs. 36, tables 22. Oxford University Press (for the British School of Archaeology in Jerusalem), Oxford 1995. $120. ISBN 0-19-727008-5.

Upper Zohar is a small hilltop fort, constructed in the fifth century A.D. along the upper end of a road leading from the south end of the Dead Sea through the Judaean desert toward the Mediterranean coast; it went out of use early in the seventh century. There are similar fortlets at the lower end of the presumed route of the road, at Hatrurim (unexcavated) and En Boqeq (excavated and published by M. Gichon). The closest large, contemporary ancient settlement is Mampsis, 29 km to the southwest. Masada lies 14 km to the northeast, across very rough country. Harper selected the site for excavation by a small team from the British School of Archaeology in Jerusalem on the advice of Gichon, as "the most pressing and intriguing problem that could be tackled with a limited budget" (ix). Although there is no explanation for the delay in publication of the 1985–1986 campaigns, it is likely that the principal investigator simply had a hard time collecting reports from the seven contributors. The "text" was copyrighted in 1995, the book officially published in 1997; I did not find any references to bibliography later than 1994. This thin volume is a thorough, capable presentation of the architecture and small finds at Upper Zohar, including an admirably complete catalogue of plant and animal remains. Analysis of the fort's regional and historical context, however, has been left largely to others.

The fort is a simple, square structure (ca. 26 m on a side), with an interior court (ca. 17 m on a side) and four corner towers (ca. 6 m on a side) projecting ca. 3 m from the curtain walls. The walls are aligned more or less to the compass, and a simple gate in the center of the west wall overlooks the most likely track of the ancient road. A cylindrical cistern (diam. 3.75 m; depth ca. 5 m) with vaulted roof was cut into the bedrock toward the north side of the courtyard, and three rooms, later reduced to a single room on the axis of the gate (possibly a chapel, p. 2), were built up against the inside of the east wall. A wall extending from the northwest tower southward across the axis of the gate may have been added later to shelter animals. The walls were constructed of roughly squared blocks of the local limestone. There are few right angles, and the wall thickness varies between 1.0 and 1.5 m.

Although the Upper Zohar fort appears to be an unexceptional Early Byzantine *quadriburgium*, its small scale made virtually complete excavation possible, with the consequent potential for important observations about arti-