

ANNUAL OF THE MUSEUM OF ART AND ARCHAEOLOGY

## Excavations At Mirobriga, The 1982 Season

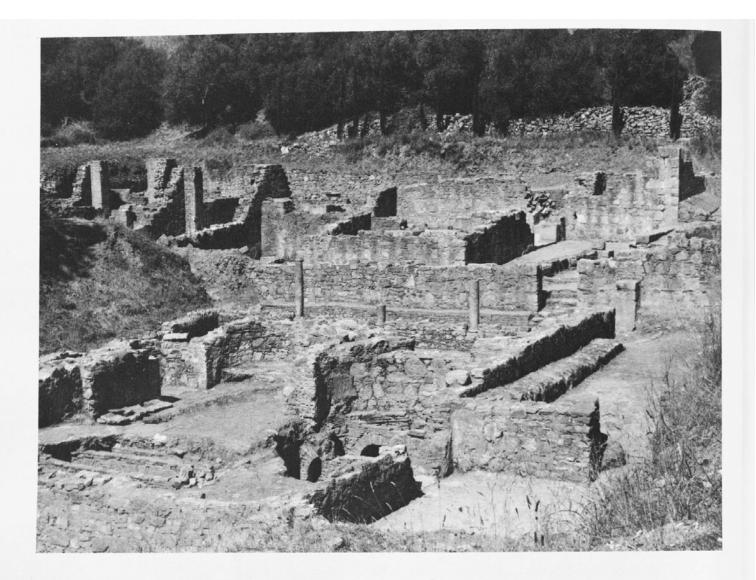
Excavations at Mirobriga in 1982 continued the work begun in the 1981 pilot season at this great Roman city site in southern Portugal (see *Muse* 15, 1981). Excavations were carried out at the top of the hill and on its south slope, where Professor Soren sought evidence for the Roman occupation of Mirobriga and found not only that, but also surprising information concerning the pre-Roman Iron Age occupation on the site. Detailed study and test excavations at the Roman Baths were undertaken by William and Jane Biers, and Roman houses were excavated by Professor José Caeiro of the University of Evora, the representative of the Portuguese Archaeological Service of the Southern Zone.

The 1982 staff at Mirobriga consisted of: David Soren (University of Arizona), Director, June 3-July 9; William R. Biers (University of Missouri-Columbia), Director, July 9-August 8; Jane Biers (UMC), Field Supervisor; John Huffstot (UMC), and David McCormick (University of Maryland), Architects; Jeff Wilcox (UMC), Photographer; Shelby Brown (Indiana University), Draftsperson; Lucinda Neuru (University of Calgary), Pottery Consultant; Margaret Craft (Winterthur Museum), Chief Conservator; Marian Kaminitz, Jane Carpenter, Laurie Booth (Winterthur Museum), Conservators; Amy Mechlin, Guy Sanders, Jan Sanders, Jim Rehard (UMC), Archaeologists. A number of volunteers also participated: Michael Eller (UMC); John Lange (University of Hull); Joseph and Grace Wavra. We were also joined by the following students from the Free University at Lisbon, who gave freely of their time and worked very hard. It is a pleasure to thank Amélia Maria Baptista Canilho, Maria Da Luz Velloso Da Costa, Maria Ana Da Fontoura Canêlhas, Inêz Vaz Pinto, Maria João Avão Serra and Maria Paula Da Conceição Coelho Pote.

The 1982 season was supported by numerous gifts and grants. We particularly want to thank the following for their support of the Mirobriga Project in 1982: the National Geographic Society; the Research Council, and the Museum of Art and Archaeology of the University of Missouri-Columbia; the Crosby Kemper Foundation; the Fulbright Commission and the Luso-American Educational Foundation (for the award of a senior Research Fellowship to Professor Biers for the project); Mr. and Mrs. William Byler, and other friends.

The following pages present brief reports for each of the areas excavated in 1982, written by the directors of each area.

WB



## The Bath Complex

1. The Roman Baths from the east.

The Roman Baths at Mirobriga lie at the foot of the acropolis to the southwest in a natural hollow that acts as a funnel for the rain runoff from the upper slopes (Fig. 1). Such a placement provided plenty of water for bathing purposes, but it also made the architects take particular pains to protect the buildings from being washed away. One of the most interesting features of the Baths is this provision for water—and for its evacuation from the site.

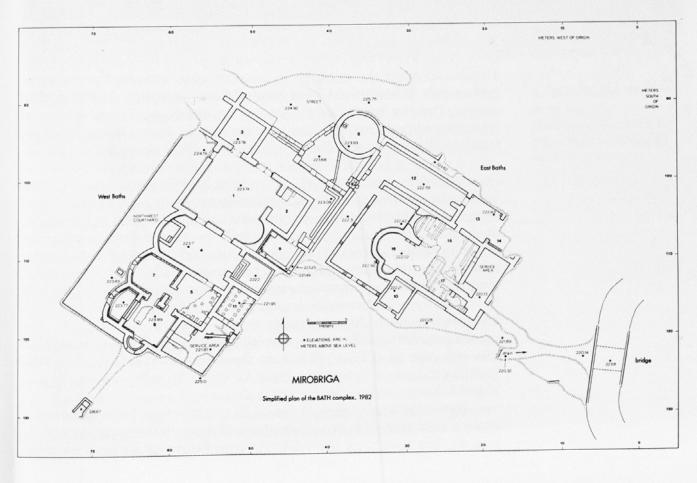
The Baths consist of two distinct buildings, designated by the team as the West and East Baths (Fig. 2). The object of continual investigations since early times—the West Bath particularly— they had been largely cleared in the 1920s, then were partially restored thirty or so years later by Dr. Fernando de Almeida. De Almeida apparently cleared most of the East Baths, but his early death precluded publication, and little of his work in this area is known.<sup>1</sup> Probably one of the most well-preserved Roman public monuments in

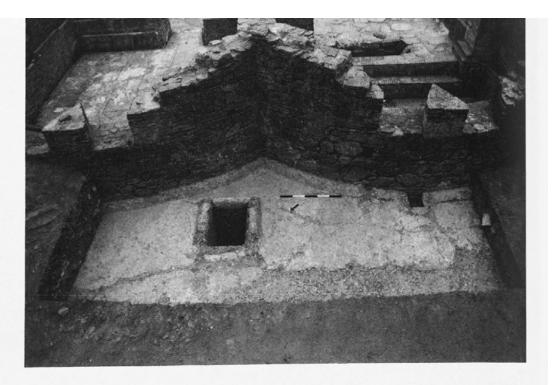
Portugal, the Baths have progressively disappeared in recent years under luxuriant vegetation. Our first project was to free the standing remains for study. Once this was accomplished, a program of study and test excavations was initiated with the goal of delineating the history of the installation and of understanding its function and place in the architectural history of the site. The 1982 season served as a beginning to this program.

The first complete ground plan of the bath complex was produced in 1982 (Fig. 2). Study and cleaning were concentrated in the West Baths, but some preliminary work was undertaken in the East Baths. As can be seen from the plan, the West Bath building is in the form of a rectangular block, opening on the short end from a paved area, which is the termination of a Roman road that approached the area from above. Two free-standing columns, without capitals, originally framed the entrance to the building and an applied half column with a well-preserved Corinthian capital stood against the northwest wall of the entrance. These architectural members were taken up the hill by previous investigators and now serve in the reconstruction of the principal Roman temple on the summit of the acropolis.<sup>2</sup>

The West Baths consist of eight rooms extending from the entrance and east court towards the southwest. A large room (no. 1 on the plan, Fig. 2) with two smaller rooms adjoining it on the southeast and north (nos. 2 and 3) may have been the original nucleus of the

2. Simplified plan of the Roman Baths plan by D. McCormick/ J. Huffstot.

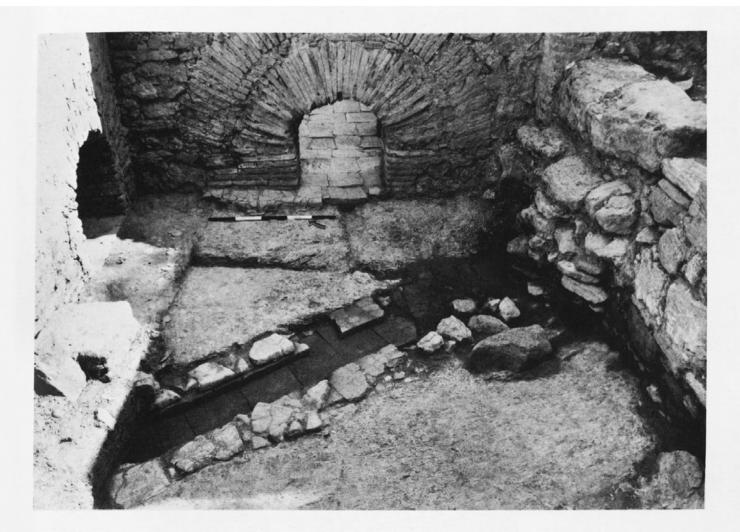




3. West Baths, Northwest Courtyard from the northwest; Rooms 6 and 7 beyond.

building, for its construction technique of ashlar blocks with drafted margins is not paralleled elsewhere in the building; preliminary tests in Room 2 brought to light sherds from the first century A.D. under its floor.<sup>3</sup> Room 4 with a small square pool in its curved end and a larger one opposite appears to have no fittings for heating and would thus correspond to the frigidarium (cold room) of the typical Roman bath. This would make the complex to the northeast, towards the entrance, presumably function, at least partially, as reception and changing rooms. The hot rooms of the Baths, Rooms 5, 6, 7, and 11, were heated by hypocausts serviced from an area at the south corner of the building. Rooms 6 and 7 had windows in their apses that faced out onto a courtyard (Fig. 3), where we found a well-preserved concrete floor extending from the walls of the bath building to a large retaining wall to the northwest. This wall served in antiquity, as it does today, to keep the hillside from burying the area. As can be seen in the photo, the walls of the building were carefully protected from the harmful action of rainwater by the provision of a raised "bumper" masking the joint between the outside floor and building's walls. These "bumpers" are made of coarse Roman mortar and can be found in many places in the bath. A service entrance into a major southwest to northeast water channel was also found in the stretch of courtyard (Fig. 3). The carefully constructed rectangular opening leads into a stone built channel with tiled floor, which no doubt diverted runoff around the building as well as acting as a drain for water from the pools in Rooms 4 and 6.4

Tests were undertaken at the south corner of the West Baths in the service area. Here ash accumulation and more drains were uncovered (Fig. 4). From this area several large, wood burning furnaces provided



the hot air that circulated under the floors of Rooms 5, 6, 7 and 11. The floors were supported on solid brick masonry arches, and an interesting construction technique was utilized to avoid the cold spots that would develop if the mass of masonry arches was inserted between the hot circulating air and the underside of the relatively thin floor. The Roman builders placed long, semicircular tiles concave side down at right angles to the piers and passing over them, thus providing a flow of hot air to warm the whole lower surface of the floor, even over the piers (Fig. 5).<sup>5</sup>

The East Baths (Fig. 2) are at a slightly lower level than the West Baths and the paved entrance court. Steps lead down into a portico bounding a courtyard on its northwest and southwest sides. The East Baths are entered from this portico by a doorway at the northwest end of Room 12, a long narrow room with benches along the walls which must have served as an *apodyterium* (changing room). A round room, Room 8, opens off the northwest end of Room 12. Its walls do not bond with the northwest wall of Room 12, and it is probably earlier than the East Baths; its function has not yet been determined. At the southeast end of Room 12, a doorway opens into a small square frigidarium, Room 13, beyond which to the southwest lie the heated rooms of the East Baths, Rooms 15, 16 and 17. These rooms were 4. West Baths, Service Area from the southwest, entrance to hypocaust of Room 11 in the background. serviced from a large area with remains of a furnace at the southeast side of the building. Room 10 which lies outside the Baths and was entered from the portico was identified by Dr. de Almeida as a latrine.<sup>6</sup>

Study and cleaning in the East Baths have only begun but already there are some interesting results. A test trench, 2.0 x 2.0 m., was excavated in the west corner of Room 14, which opens off Room 13. Destruction debris of brick and tile fragments and stones from the collapsed walls and roof was cleared down to just below the level of



5. West Baths, Room 6, detail of floor construction.

6. East Baths, destruction level in Room 14 from the southwest.



the floor in the adjacent Room 13. Floor level for Room 14 had not been reached at the end of the season, and the fill appears to continue down. Probably this area will turn out to be a cold pool or plunge opening off Room 13, the frigidarium of the East Baths. A water channel cuts through the south spur wall between Rooms 13 and 14 and continues along the face of the southwest wall of Room 14 into undug fill. At the end of the season an interesting fall of bricks and tiles had been reached (Fig. 6). Two rows of bricks or tiles (0.46 x 0.13 x 0.02 m.) had fallen flat in two rows, and on top and between them lay a row of bricks (0.24 x 0.24 x 0.02 m.), still bonded with mortar. In 1983 a larger trench will be opened here to uncover and elucidate what may turn out to be brick ribs and tile from the roof.

Preliminary cleaning and study in the previously excavated parts of the East Baths have already yielded information about the probable sequence of construction. Originally the Baths may have been smaller and consisted of the frigidarium (Room 13) and two heated rooms (15 and 17). Traces of the original northwest walls of these two rooms still exist within the hypocausts. At a later time Room 15 was extended to the northwest and Room 16 was added; both these rooms had apsidal pools at their northwest ends, and Room 15 was lighted by a window in the apse; the evidence for windows for Room 16 is not preserved, although it too was probably served by windows.

The 1983 season in the Roman Baths will concentrate on further cleaning in the East Baths, test excavations and detailed study of the whole complex. Thus, one of the major Roman monuments of Portugal is being rescued from the obscurity into which it has fallen.

WILLIAM R. BIERS JANE C. BIERS University of Missouri-Columbia

<sup>1</sup>João Cruz e Silva, "Apontamentos e considerações sôbre as pesquisas arqueológicas realizadas desde 1922 nos concelhos de S. Tiago-de-Cacém, Sines e Odemira," Arquivo de Beja 2 (1945) 291-99 and continued in volume 3 (1946) 336-51; F. de Almeida, Rúinas de Miróbriga dos Célticos (Edicão da junta distrital de Setúbal, 1964) 33-38, particularly 34, fig. 11.

<sup>2</sup>See Muse 15 (1981) 33, fig. 15. For the columns and capital in their original position, see J. Alarcão, "On the Westernmost Road of the Roman Empire," Archaeology 20 (1967) 176.

<sup>3</sup>Locus 002-005, Terra Sigillata Italica, 1st century A.D.; local (Alentejo) pink and white coarse ware, 1st century A.D.

<sup>4</sup>A similar water conduit has been traced that enters the area from the southwest and passes around the southwest corner of the West Baths, flushing a latrine (Room 9) on its way before turning southeast, possibly flushing another latrine (Room 10) before flowing down the valley and beneath the Roman bridge that delimits the site on the southeast.

<sup>5</sup>The same method of floor construction for hot rooms is known elsewhere in Portugal. The nearest parallel, unfortunately not closely dated, is at Pisôes, near Beja; Fernando Nunes Ribeiro, *A Villa Romana de Pisôes*, (Beja 1972) 13 and fig. 7.

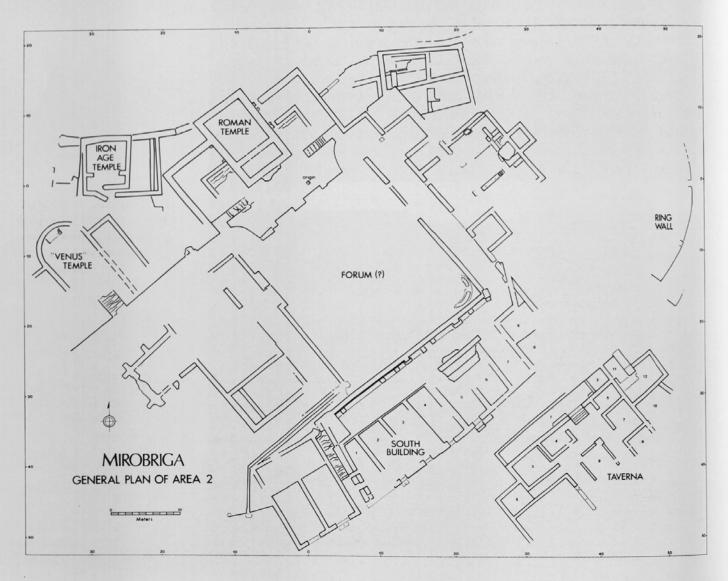
<sup>6</sup>De Almeida, Rúinas, fig. 11.

## **The Forum Area**

The 1982 excavations in the Roman forum area of Mirobriga confirmed several hypotheses formulated in the 1981 campaign and also produced some exciting discoveries belonging to the Portuguese Iron Age, which may have lasted in this region from the fifth century B.C. to the first century A.D.<sup>1</sup>

The forum area, situated on the hill known as Castelo Velho, was described in *Muse* 15 (p. 33), and a date around the middle of the first century A.D. was suggested for the main temple, forum and large South Building which dominate the slope of the hill (Fig. 1). Pottery excavated from beneath the foundations for paving slabs in the south corner of the forum and from beneath street paving slabs in front of the South Building dated to the time of the emperor Claudius or Nero.<sup>2</sup>

Thus the major monumental buildings of the forum area appear to have been installed at one time. They follow a northwest to southeast orientation and are linked by their constructional technique which



1. Simplified plan of the Forum Area - plan by J. Huffstot.

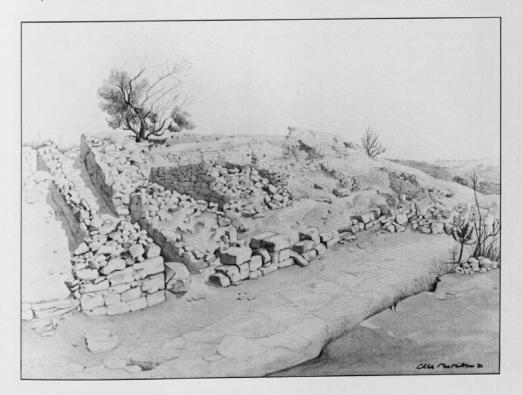
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often includes the rough, unfinished and rusticated ashlar blocks typical for this period throughout the Roman world. Only cosmetic changes were observed following this initial period of building: a repaving of the forum and a raising of the level of the southeast peristyle, the filling in and dismantling of a drain which ran along the southeast wall of the forum. The date of this did not precede the later first century. Nowhere do the remains confirm the third or fourth century A.D. date of construction for the area proposed by Dr. Fernando de Almeida, the previous excavator.<sup>3</sup>

The South Building may be a market complex.<sup>4</sup> It dominates the major intersection at the base of the hill (Fig. 2) and it is difficult for an American to view it without being reminded of a multi-level shopping mall on a small scale. It takes up almost all of the view as one walks up from the bath buildings in the valley below. It was in fact originally at least two stories high and some thirty-one meters long, built of long rubble walls running northwest to southeast and using concrete foundations to support at least some of the upper level floors.<sup>5</sup>

The entire façade was faced with ashlar blocks (Fig. 3). Some rustication was used at the corners and on a cut stone archway which fell from the structure.<sup>6</sup> The façade was designed to open into a series of evenly spaced large shops or stalls and the complex parallels closely a smaller market identified by Dr. Carlos Tavares da Silva at nearby Armazems, also mid first century in date.

Across the street from the market was another important building with an apparently porticoed entrance to the street and leading to a central court surrounded by rooms. Partially excavated by Dr. de Almeida and tentatively identified as a shop last season, the complex may be a taverna (the south part of it has fallen down the hill). This



2. Artist's rendering of the South Building by Chloe MacMillan. View from the southwest.

identification may be suggested because of its central location and its pleasant wall paintings, no traces of which existed in the market.

After initial excavation, the seven preserved walls of fresco painting had been left since 1963 in an insufficient state of protection under corrugated tin roofing. In order to save them, an emergency rescue team was formed by Margaret Craft of the Department of Conservation of the Winterthur Museum.<sup>7</sup> The frescoes were found to have been painted on original walls and there was no evidence of any earlier painting underneath them. The house may belong to the original complex of buildings and the few scraps of pottery found under its floors also suggest this. Thus we may have a rare example of the Portuguese version of the Pompeian Third Style in wall decoration (Fig. 4).<sup>8</sup>

Dr. de Almeida believed that the Castelo Velho was also the site of a pre-Roman settlement and this hypothesis was confirmed by Dr. Tavares da Silva and Joaquina Soares who have studied the unstratified ceramics from the site and identified a settlement of the Second Portuguese Iron Age perhaps beginning in the fifth or fourth century B.C.<sup>9</sup> Excavation in 1982 reached levels associated with the pre-Roman occupation on the hill.

East of the South Building and under the Roman paved street of the mid first century was found a living surface of bone, pottery and much ash. A small rubble wall associated with this material was found



3. Detail of the façade of the South Building seen from the southwest. Note the foundations of the staircase leading up to the Forum Level.

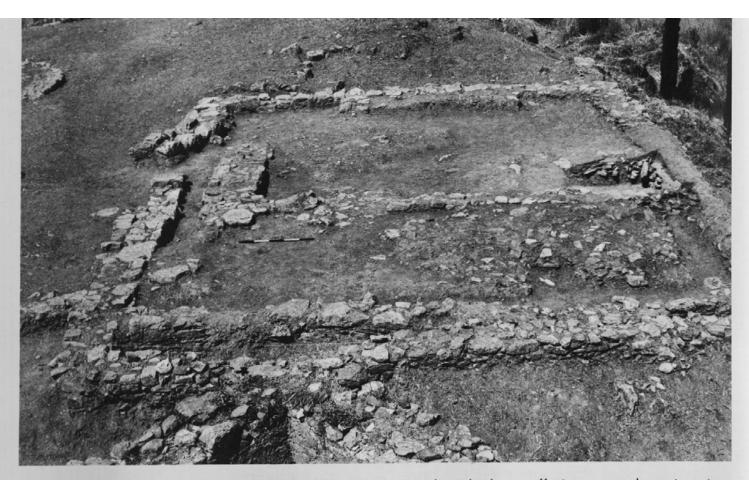


4. Detail of the decorated wall during treatment before removal to the Museum in Santiago do Cacém.

at the eastern limit of the taverna and under the street paving of the Roman period. The pottery was dated by Tavares da Silva and Soares to circa 300 B.C. while the bones from the deposit were analyzed by David Reese and included burned and unburned material, some of which had been butchered.<sup>10</sup> Evidence for pig, sheep or goat, cattle and rabbit was noted along with a few fish bones and shells including varieties of oyster, limpet and possibly clam. Seed analysis has not yet been completed.

The most exciting discovery of the season occurred on the top of the hill (Figs. 5 and 6). There the main Roman temple of the mid first century cuts through a wall running along the northern perimeter of the hilltop. Unlike the Roman walls with their large limestone, rough-faced boulders in heavy mortar, this wall has only a mortar of earth and a high concentration of mostly flat schist courses some ten centimeters in height. The wall is carefully made, especially to the immediate west of the temple and it apparently continued east of the temple where several similar walls along a similar orientation appear beneath the Roman level.

Bonded into the wall west of the temple is a structure of megaron shape which was cleaned and partly excavated in 1982. Excavation against the circuit wall inside the structure at the northeast corner produced a surface layer of at least the mid first century A.D. under which Iron Age material began to appear. An earth floor was reached under which two small bowls had been set upside down (Fig. 7). One of them contained about forty small animal bones belonging to a single bird, possibly a Rock dove.<sup>11</sup> The bowls each had a small hole in the base but whether or not this was intentionally cut or resulted from the breaking of the bowl over time due to soil pressure could not be determined. Such an apparently votive deposit is not surprising for a Portuguese Iron Age sacred structure.<sup>12</sup>



5. View from the east of the proto-Roman temple.

The building associated with these offerings may be a Late Iron Age, proto-Roman temple. Dr. Caetano Beirão describes it as "apparently unique in Portugal and of major importance." Dr. Tavares da Silva and Joaquina Soares date the bowls to the very late Iron Age, probably first century B.C. or, at the latest, the very early first century A.D., thus suggesting that the break between pre-Roman and the Roman Imperial configuration of the hill and its monuments was not a lengthy one.

There are good reasons for suggesting that the structure found in 1982 is a proto-Roman temple of Celtic type. The form is a bizarre hybrid of what seems to be a Greco-Roman cella preceded by a pronaos, but squarish in the Celtic tradition, and the entry makes viewing into the cella difficult.<sup>13</sup> Equally difficult to enter because of this secretive, oblique approach is the temenos area east of the temple. The two precinct walls there may represent an original wall line which was later regularized. Traces of a rubble fill and stone floor paving exist within the temenos and will be excavated next year.

That this building was of major importance is obvious. It was apparently built as part of the circuit wall of the northern part of the hilltop, but its construction actually preceded the wall.<sup>14</sup> It is also the only pre-Imperial structure that was not demolished by the Romans even though its orientation is completely different. Moreover, it has been carefully and intentionally surrounded by two Roman temples (the main Roman temple or capitolium to the east and the so-called





6. Plan of the "Celtic" or proto-Roman temple above the Forum - plan by J. Huffstot.

7. View from the north of the northeast corner of the cella of the proto-Roman temple. Note the two inverted bowls, the westernmost of which contained bird bones. Temple of Venus to the southwest), of which the former, more important structure literally touches its temenos wall without encroaching into the sacred district.<sup>15</sup>

Are we then to imagine that here at Mirobriga we are witnessing the literal expression of the Romanization process? Might we speculate that the Italian conquerors imposed their architecture and religion while still venerating and syncretizing the indigenous religious and architectural forms? The 1983 campaign should provide many answers to this, especially since it now appears that the proto-Roman temple was itself preceded by an earlier structure which must still be excavated!<sup>16</sup>

Even within the main Roman temple of the forum pre-Roman traces emerged in 1982 in the form of three superposed walls following an orientation similar to that of the proto-Roman temple. Whereas the 1981 season dispelled some of the misconceptions about the Roman city of Mirobriga, 1982 was the year that the Celtic occupation emerged all over the hill and 1983 promises to offer readers of the next *Muse* a more detailed glimpse of the culture of these Second Iron Age inhabitants of Portugal.

DAVID SOREN University of Arizona

<sup>1</sup>I wish to thank Dr. Caetano Beirão, Director of Antiquities for Southern Portugal; Dr. Homer Thomas, University of Missouri-Columbia; José Caeiro, University of Evora; Maria Luisa Ferreira Dias, Carlos Tavares da Silva and Joaquina Soares, all of the Setúbal Museum; Margaret Craft, Winterthur Museum, and Guy Sanders, Project Field Director, University of Missouri-Columbia, for their creative assistance in the preparation of this article. For the standard work on the Portuguese Iron Age (by no means accepted universally), see P. Bosch-Gimpera, "Two Celtic Waves in Spain," *Proceedings of the British Academy* (1939).

<sup>2</sup>These dates were confirmed by the Portuguese pottery specialists Ferreira Dias and Caeiro and later confirmed by project ceramicist Lucinda Neuru of the Calgary Humanities Institute. On the Romanization of this area and its ability to maintain its Iron Age culture longer than other regions, see Antonio Domingos Simões Coelho, *Numária da Lusitania* (Lisbon 1972) 61 f. Houses at the western limit (car park) of Mirobriga were excavated by Dr. Caeiro in 1982, and they too were created in the mid first century with no earlier Celtic occupation in this area.

<sup>3</sup>Fernando de Almeida, *Ruinas de Miróbriga dos Celticos* (Edição da junto distrital de Setubal, 1964) 71.

<sup>4</sup>The monument was never completely cleared by de Almeida and therefore not identified. Its size and central location, lack of decoration (save for a relief of a bull head on one façade block), and an iron animal-tethering ring still embedded in the wall in Room 6 just east of the entry all point to the identification as a market.

<sup>5</sup>The massive concrete floor foundations (*statumen*) and the *formigão* (non-mosaic, coccio pesto flooring) have rolled down the hill or slipped from their original positions. These could never have been suspended on wood beams. Thus the market was stepped up the hill in two levels with the top story serving the forum area and accessible through Room 1. A massive staircase also linked the upper and lower stories to the forum above and the street below.

<sup>6</sup>Mr. Huffstot believes the arch stood on an exedra or platform in the center of the northwest wall of the building at forum height.

<sup>7</sup>One fresco was lifted from the taverna in 1982, reset on a wooden frame for backing, and put on permanent exhibition in the Mirobriga wing of the Museum of Santiago do Cacém, two kilometers from the site. The other walls containing fresco were reburied under sifted earth until next summer.

- <sup>8</sup>For the many stylistic parallels of the *crustae* (imitation marble decoration on the socle of the wall painting) ranging from the first to fourth century A.D. in Spain, see Lorenzo Abad Casal, "Las imitaciones de *Crustae* en la pintura mural romana en españa," *Archivo Espanol de Arqueologia* 50-51 (1977-78) 189-204, and especially p. 190. I wish to thank Jeffrey Wilcox for this reference.
- <sup>9</sup>"Ceramica pre-Romana de Mirobriga," *Setúbal Arqueológica* 5 (1979) 159-77. The early pottery shows no occupation at the site before the fifth century B.C. and it has affinities with the interior of the Huelva area of southern Spain and the eastern Meseta region (p. 162).
- <sup>10</sup>The butchered material included one pig rib and one cattle-sized bone while several other bones were possibly butchered and one fish spine was cut. There were 135 bone fragments in all from the small probe. The appearance of this living surface resembled those found in association with hearths at Pedrão near Setúbal. For these, see Soares and Tavares da Silva, "Occupação do périodo proto-Romano do povoado do Pedrão," Actas das 11 Jornadas Arqueológicas<sup>1</sup> (1973) 12 (Rooms 1 and 7). Note that Pedrão is a Celtic community resettled by the Romans between fifty and one hundred A.D. following a period of abandonment.
- <sup>11</sup>The bones from the offering bowl at Mirobriga are either those of a chicken or a dove. Mr. Reese believes that they may be a young Columba livia (Rock dove) but a second opinion was requested by him from Dr. George E. Watson of the Smithsonian Department of Vertebrate Zoology. The skull and toe bones appear to be missing and may have been removed by butchery. They are small bones however and simply may not have survived. A small iron pin some four centimeters long was recovered from the bowl by Barbara Moore of the Arizona State Museum.
- <sup>12</sup>In France, Portugal and the foothills of the Alps evidence for animal and even human sacrifices placed within a sacred area and carefully sealed up may be noted. On this see Gerhard Herm, *The Celts* (New York 1964) 161.
- <sup>13</sup>For the squarish form of the Celtic temple with surrounding temenos, see such sites as Harlow Hill (Essex) where a Romano-British version of a Celtic temple illustrates the continuity of Celtic religious practice and sacred architectural forms well into the Roman period: R. E. M. Wheele, "A Romano-Celtic Temple near Harlow," Antiquaries Journal 8 (1928) 300-26. The Romano-Celtic temple of Frilford (Berks) has a similar plan and may date to about 80 A.D., although it replaced a simpler native shrine. See J. S. P. Bradford and R. G. Goodchild, "Excavations at Frilford, Berks 1937-8," Oxoniensia 4 (1939) 33. But exact parallels for the Mirobriga temple with its non-peripteral temenos and oblique entry will require more time to unearth than was possible for this preliminary report. For example, T. G. E. Powell in The Celts (London 1958) cites (on page 145) numerous examples of square Romano-Celtic temples, some of which are on hilltops. He includes such type-sites as Écury-le-Repos in northeastern France, and he singles out Gaul as the most frequent area in which to find such structures. The principal source for the Celtic temple form is Harold Koethe, "Die Keltischen Rund- und Vierecktempel der Kaiserzeit," Bericht der Römisch-Germanischen Kommission 23 (1933) 10-108. More recently see Dr. J. E. A. Bogaers, De Gallo-Romeinse Tempels Te Elst in de Over-Betuwe (S'Gravenhage 1955) 5-7.
- <sup>14</sup>The situating of Celtic temples on hilltops within an *oppidum* (fortified hill community) is not uncommon. See I. A. Richmond, *Roman Britain* (New York 1960) 142 for examples at Lydney and Maiden Castle. Dr. Beirão has cited another structure of the Portuguese Iron Age at São Miguel da Mota near Terena Alandroas in the eastern Alentejo, but this temple to Endovellicus does not survive. See José D'Encarnação, *Divinidades indigenas sob domino romano em Portugal* (Lisbon 1975) 181.

<sup>15</sup>On the suggestion that the temple is a capitolium see Muse 15 (1981) 31.

<sup>16</sup>The east wall of the temple was reused from an earlier structure but an earlier west wall underlies the west wall of the temple. Whether or not the earlier structure will be the same date as the earliest pottery from the site (fifth century B.C.) is one of the primary questions for the upcoming campaign. For a discussion of the Celtic square sanctuary space known as a *nemeton*, see Anne Rose, *Everyday Life of the Pagan Celts* (New York 1970) 137-38.

## about the authors

**Jane C. Biers** is Curator of Ancient Art at the Museum of Art and Archaeology, University of Missouri-Columbia. She received a Ph.D. at the University of California-Berkeley, doing her dissertation on "A Roman Bath at Corinth," which is now in press. Other publications include monographs on Cypriote archaeology, an article in *Muse* (3), and in the *International Journal of Nautical Archaeology* (1977). Her excavation experience has been in England, Greece, Israel and Portugal.

William Biers, Professor of Classical Archaeology in the Department of Art History and Archaeology at the University of Missouri-Columbia, has excavated extensively in Turkey, Israel, Greece and Portugal, and is a frequent contributor to *Muse* (see volumes 5, 6, 7, 13 and 15). His book, *The Archaeology of Greece*, published by Cornell University Press, is a standard text for university students in archaeology.

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**William Coulson** is Associate Professor of Classics and Classical Archaeology at the University of Minnesota where he has taught since 1968. He received his Ph.D. degree from Princeton University and has worked on excavations at Nichoria (Greece) and Tel Mikhal (Israel). He is at present Co-Director of the Naukratis excavations.

Professor **Eugene Lane** has been with the Department of Classical Studies at the University of Missouri-Columbia since 1966, and is currently serving as Chairman. His publications have been primarily in the area of late paganism, and he has written extensively on the cults of Mên and Sabazius. His previous contributions to *Muse* have concerned the cults of Sabazius and Attis, as well as a group of votive and grave steles from Byzantium (*Muse* 3, 4 and 8).

**Albert Leonard, Jr.** is Associate Professor in the Department of Art History and Archaeology at the University of Missouri-Columbia. With a Ph.D. in 1976 from the University of Chicago, he has been Director or Co-Principal Investigator of excavations in Greece, Italy and Jordan, and is currently Co-Director of the Naukratis excavations.

**Gloria S. Merker**, Chairman of the Classics Department of Rutgers University in Newark, received an M.A. from the University of Missouri-Columbia, and a Ph.D. from Bryn Mawr College. She has participated in Missouri excavations at Jalame and Tel Anafa, and also at Tel Dan, in Israel. Her previous articles about Greek vases in the Museum's collections have appeared in *Muse* (1 and 8). Currently engaged in a long-term project at the American School of Classical Studies excavations in Corinth, she is also an Associate Editor of the *Israel Exploration Journal*. She recalls being the *very first* Museum Assistant in Missouri, helping the Weinbergs to move the study collections from Jesse Hall to the Museum's first official home in Ellis Library.

**David Soren**, Chairman of the Department of Classics at the University of Arizona, was formerly with the Department of Art History and Archaeology at the University of Missouri-Columbia; he is a regular contributor to *Muse* (9, 13, 14 and 15). In addition to his work as Director of the first session at Mirobriga in 1982, he has directed excavations at Kourion on Cyprus, and several sites in Tunisia.