



FIRST NEWSLETTER FROM SARDIS, 2010

CONFIDENTIAL - NOT FOR PUBLICATION

July 6, 2010

Dear Friends and Supporters,

An unusually wet winter left the hills green and lush as we arrived toward the end of May, and we reveled in the cool evenings, the soft, cloudy light, and the occasional dramatic thunderstorm (**Fig. 1**). Like a friend who outstays his welcome, however, the wet weather lingered on, in an unprecedented display of climatic change. In late June a torrential rain, the likes of which nobody in Sart had ever seen, flooded the Pactolus stream, flooded roads, trenches, and almost overflowed into the depot, and made us wish for summer to finally arrive. Now it has arrived, though, and on these long, hot days we fondly remember shivering in our sweaters on those chill mornings.

It was exactly 100 years ago this spring that Howard Crosby Butler first planted a shovel in the Artemis sanctuary and began American archaeological research at Sardis. His excavation of the Temple of Artemis still dominates people's experiences of the site: the temple is the most beautiful monument of the city, but also one of the more enigmatic. As Fikret Yegül (University of California - Santa Barbara) finishes his manuscript on the temple — the fruits of 23 years of drawing, study, and writing — questions have inevitably arisen about its construction and phasing. With a number of specific problems in mind, Güzin Eren (Middle East Technical University) started excavation in the temple in early June. Some of what she has done is simply to check Butler's results. For instance, Butler identified two courses of limestone blocks under the west wall of the temple as belonging to an earlier, Lydian building. This is potentially very significant: there has been precious little architecture identified in the sanctuary of Artemis earlier than the Hellenistic temple, and although we would love to believe that Croesus worshipped at his own temple of Artemis (after all, he dedicated most of the columns of the Artemision at Ephesus, the greatest of Ionic temples), so far there is no evidence to support this. Butler's limestone blocks, if really Archaic, would be some of the very few remains from this early period. But it was not to be. Güzin's trench, dug through Butler's backfill, revealed that the blocks Butler describes as Archaic are actually part of the Roman construction of the temple, with Roman concrete underneath them (**Fig. 2**). While disappointing, it at

least answers the question definitively. Güzin has moved on now, and is excavating in the peristyle of the temple, where she hopes to learn more about the chronology of the different phases of the building, and about the landscape in which it was built. More on this in the second newsletter.

As Güzin cleans and excavates the temple, architect Brianna Bricker (University of California - Santa Barbara) is studying and drawing fallen blocks of the superstructure that lie strewn about the sanctuary, including the architrave blocks that once spanned the columns on the east end. One of these mammoth blocks is still intact, and Teoman Yalçinkaya (Çimentaş, Izmir, retired) estimates it weighs 23 tons. Three other fragments might join to form the largest block in the temple, a 23-foot long, 30-ton monolith, which the Roman engineers raised 60 feet in the air (**Fig. 3**). This isn't quite clear, though, and Brianna hopes to resolve the question one way or the other this summer.

The other excavations this summer are all in what was once downtown Sardis, now olive and grape fields or fallow land: in the ancient theater and on a neighboring terrace. The two archaeologists and their excavations in the theater could not be more different (**Fig. 4**). Tiziana D'Angelo (Harvard University) returns to her Lydian house underneath the theater, to finish the room she began last season. Last summer's excavations were only the beginning: as she cleaned the destruction deposit at the beginning of the summer, apparently the result of Cyrus the Great's sack of Sardis in 547 BC, more and more Lydian pottery and other artifacts emerged, broken in place on the floor of the room. We're still not sure how this room could have been used, with nearly all its floor area taken up by low mudbrick "benches," leaving only narrow corridors around them, with hardly enough space to pass through; and somehow filled with pottery, fifty or sixty vessels identified so far. What was this room, then? A storeroom, perhaps, with banks of shelving built on the mudbrick benches occupying most of the room? Or is that notion simply the influence of our new depots, filled with shelves for pots and other artifacts? The assemblage is quite remarkable, though. Inside a smashed hydria or amphora lay an unusual three-spouted triangular lamp (**Figs. 5, 6**); nearby was a matched pair of omphalos phialai, libation cups decorated with the peculiarly Lydian technique of marbling — all museum-worthy objects. Native Italian Tiziana immediately recognized a crushed and rusted iron object as a grater with a handle, and when the conservators had finished with the pile of fragments, it was indeed such a grater, with a large cross-shaped handle — perhaps for grating cheese, or perhaps for making breadcrumbs, one of the ingredients of a Lydian stew called *kandaulos* (**Fig. 7**; Greenie [Crawford H. Greenewalt, Jr., University of California - Berkeley] discusses this in his article on Lydian food and drink in the Yapı Kredi Museum exhibition catalog). Other finds include a sewing kit consisting of needles, a scissors, and spindle whorls, all found together, and a group of silver appliques or ornaments, perhaps attached to a fine wooden box or other object. All these artifacts are sorted and mended in the lab by special projects conservator Jennifer Kim (Margaret Herrick Library, Academy of Motion Picture Arts and Sciences) and conservators Julia Sybalsky and Cybele Tom (both Institute of Fine Arts, New York University), who have now identified and mended thirty-seven complete or almost complete pots (**Fig. 8**), and have another couple dozen in progress!

While Tiziana labors with soft paintbrushes and wooden skewers that won't harm the artifacts, removing earth by the handful and bringing in crates of intact vessels and mendable sherds each day, Ferhat Can (Middle East Technical University) is starting from scratch, looking for the next Lydian house to excavate in the theater. When we started excavating in the cavea five years ago, we encountered, in the first few days of excavation and almost immediately under the modern surface, large joining fragments of Lydian pottery. This proved to be the floor of Tiziana's Lydian house and its destruction level, cut by the Hellenistic builders when they transformed the abandoned residential hill into a theater. Ferhat's strategy, therefore, is to clear a huge area of the theater cavea (**Fig. 4**) — at 20 x 20 meters, probably the largest trench dug at Sardis since the 1960's. He will not dig deeply, just enough to locate earlier structures that might be exposed just below modern surface level. A dozen workmen armed with picks and shovels are scraping off the topsoil, raising clouds of dust. It's difficult work, maneuvering on this steep slope; and the whole operation is something of a long shot. So far, no hits, not even much architecture of the theater, which has almost entirely eroded away. But there's still time to find that neighboring house, and get some idea of the topography of this area before there was a theater here.

While Tiziana and Ferhat investigate domestic remains, Randall Souza (University of California - Berkeley) is looking for the monumental architecture of Lydian Sardis, and the great terrace walls which regularized and monumentalized the rugged natural landscape of central Sardis. Above the theater, on the hill called Field 49, one of the high natural spurs that dominate central Sardis, Randy is expanding his excavation of the hillside where last year he discovered a Lydian limestone terrace wall (**Fig. 9**). Most of his work so far has been on the deep Roman fills, which we tentatively associated with cleanup after the massive earthquake of 17 AD that devastated the city. Naturally it's not quite as simple as we'd thought, as Elizabeth DeRidder and Marcus Rautman (both University of Missouri) have determined from studying the pottery from Randy's trench. They conclude that much of the fill and associated levels date to something like a generation after the earthquake. Despite the ten million sesterces sent (or at least promised) by the emperor Tiberius, Sardis may have lain in ruins for years after the earthquake. There are a number of early Roman building phases, and perhaps the reconstruction proceeded in fits and starts for some time.

Next door to Randy on the top of the hill, Will Bruce (University of Wisconsin-Madison) is excavating to expose the buildings this terrace supported. Although we know something about these great Lydian terrace walls, we know much less about what was on them: gardens, sanctuaries, palaces, what? Christopher Ratté's (University of Michigan) excavations in the 1980's on ByzFort, the neighboring terrace, revealed a sequence of Lydian monumental buildings, but none well enough preserved to identify what they were. We hope that the remains here will eventually give us more positive identification. For now, though, Will is in complicated Roman and late Roman levels, with a maze of walls of different phases, floors, reused column drums, waterpipes and, most heart-breakingly, the burial of a baby, probably of a late, post-Roman period (**Fig. 10**).

The really difficult sides of archaeology are studying and publishing the results, and conserving

and restoring the ancient remains. Editing and publication are in the able hands of Kathy Kiefer (Sardis Office, Harvard University), who has Christopher Ratté's volume on Lydian masonry almost out the door, and Hans Buchwald's volume on the Churches of Sardis well under way. Andrew Seager (Ball State University) is hard at work on his publication of the Synagogue architecture, and Marcus Rautman is studying the mosaics, furnishings, and other aspects of the building. Jane Evans (Temple University) returns to study the thousands of coins from the excavations. Andrew Ramage (Cornell University) continues to go through material from the early levels at sector HoB, the so-called Cimmerian Destruction, a destruction level which actually predates the invasion of the nomadic Cimmerians in the seventh century BC; as he does so, he is making sense of the complex stratigraphy and revising our understanding of Lydian pottery in the time of Homer. Greenie pursues his researches on Lydian pottery, as well as a thousand other things, from Greek and Roman building technology to Butler's crane (below), especially for explanatory signs. Roman sarcophagi are the province of Annetta Alexandridis (Cornell University). And we are enormously proud of the two scholars who finished or are finishing their PhD dissertations on Sardis topics this year: Vanessa Rousseau (now University of St. Thomas), who wrote on Late Roman wall painting, and Frances Gallart-Marqués (Cornell University), who is almost finished with her dissertation on the figural terracottas of Sardis, and is also here as recorder.

The reorganization of the depots has been an essential project of the last five years. Last summer the old depot was emptied, and over the winter, Teoman renovated the building, transforming it into a clean, bright, high-ceilinged space. Now Alexia Margaritis (Cornell University), Sheila Nightingale (City University of New York) and Elizabeth Gombosi (Sardis Office, Harvard University, retired) are busy transferring back the hundreds of boxes of study materials — animal and human bones, soil samples, wall plaster, technical samples, the bric-a-brac of half a century of excavation — some of great scientific interest, others saved on principle, that they might be of importance in the future.

And helping to coordinate all this activity, both in Cambridge and here at Sardis, is Bahadır Yıldırım, director of the Sardis Office and, under new Turkish regulations, assistant director of the excavations. Baha has been an enormous asset to all aspects of work, his efficient and thoughtful efforts making everyone's lives and work easier and more productive.

Conservators and architects are hard at work on a number of site conservation projects, preserving and presenting the results of excavations for present and future audiences. A generous grant from the J.M. Kaplan Fund allows us to take on the conservation and reconstruction of two buildings, the Lydian Altar and the Synagogue. The Lydian Altar is Butler's discovery, the first building he excavated at Sardis (**Figs. 11, 12**). It is really two consecutive structures: an earlier stepped monument of limestone blocks (LA1), predating the temple, and a later enclosure which surrounded the limestone building (LA2). LA2 was once quite presentable, with marble stairs along the front, embellished with marble stelai around its sides, some probably in the Lydian language, and displaying votives including a marble ball dedicated by the early Hellenistic queen Stratonike. A coat of plaster made the building smooth and crisp, but beneath the surface, the walls were built

of substandard materials: reused blocks from the earlier stepped building, and blocks of local purple and green sandstone, some of which are so soft that they actually dissolve in water. And time has not treated the Lydian Altar kindly. The marble stairs were robbed out in antiquity, leaving the sandstone foundations to weather away; the plaster that protected the walls fell away, leaving the soft stone exposed to dissolve in the rain. As a final insult, someone dismantled part of the earlier building (LA1) in the years between the Butler and the Harvard-Cornell expeditions, leaving its limestone blocks scattered around the site.

Conservators Catherine Williams (Silver Lining Art Conservation) and Hiroko Kariya (Oriental Institute, University of Chicago) are in charge of these Kaplan projects. This year they are studying, cleaning, and testing different methods of protecting and consolidating the soft stone and surviving stucco of LA2, and designing new protective stairs, drainage, and other features that will preserve and restore the altar (**Fig. 13**). Meanwhile, Brianna has drawn and studied the limestone blocks that had been pulled from the the earlier building, to figure out how to put it back together: a three-dimensional, four-layer jigsaw puzzle in which the pieces are almost blank, broken, only subtly different from one another, and occasionally missing completely; nonetheless, Brianna has figured out (at least theoretically) how to put them back in place, and we hope to have it reassembled by the end of the season (**Fig. 14**).

The other Kaplan project is the Synagogue, begun last year by Kent Severson (private practice). With a team of skilled workmen, Catherine and Hiroko are continuing Kent's consolidation of the mosaics, walls, and other features of the building, filling voids that leave the mosaics vulnerable, mending cracks, and generally repairing the inevitable wear and tear caused by forty years of exposure (**Fig. 15**). Both the Lydian Altar and the Synagogue will continue for the next three years, and we hope to restore these monuments of Lydian and Late Roman Sardis to their former state, and allow them to stay that way for another lifetime.

A third site conservation project is the Lydian mudbrick fortification by the highway, an intractable problem that you have read about in previous newsletters. The question of how to protect, display, and explain this great monument of Lydian Sardis has vexed us for decades. A shelter to protect houses of the Lydian and Roman eras adjacent to the fortification was designed in 1993 by Troy Thompson (SmithGroup), and remains, in my opinion, a tremendous success, light, airy, spacious, unobtrusive. It has even left its mark at neighboring archaeological sites: at Old Smyrna, a recently built shelter over their mudbrick fortification does homage to the gentle curves, translucent color and harmonious design of the Sardis roof. So we coaxed Troy back to Sardis, to work with conservator Michael Morris (Metropolitan Museum) and architect Phil Stinson (University of Kansas) to extend his design over the fortification itself. They have been brainstorming, building on the progress made in previous seasons, and enlisting the aid of architects Nathaniel Schlundt (University of Pennsylvania) and Clare Ros (Ball State University) to help survey the topography and complex archaeology of the hill and design the structure, its footings, trusses, walkways, and other features.

The larger problem is how to make this part of the site intelligible to visitors, with its thousand-year ancient history, its fifty-year modern history of excavation, its many different phases and particular consistencies (such as the course of the main highway, on roughly the same spot for over 2700 years, from the Lydian period through the present day). Those of you who have visited Sardis will have toured the Late Roman quarter, including the Byzantine Shops, the Bath-Gymnasium complex with its Marble Court, the Synagogue, and other buildings of Sardis's later history. The question now is how to bring visitors back to a time a thousand years earlier than these remains, to the Lydian era, whose remains are much less intelligible: how to explain each period separately, help the uninitiated distinguish different periods (sometimes hard even for the experienced archaeologist) and see how they all relate to and build upon one another. Troy, Phil, Michael, and others are bringing together ideas that will, I hope, provide interested visitors with a unique experience of these cultures and monuments, and of the research of the past few decades.

To return to Butler's excavation: one of the most visible monuments of his excavations is the cast iron crane, brought to Sardis from England in 1911 and abandoned in the sanctuary when the excavations were broken off during World War I. This has long been either a fascinating curiosity or a terrible eyesore in the Artemis sanctuary, depending on your point of view. We've taken the former position; Teoman and Colin Wright (Sir Alexander Gibb and Partners, retired) figured out how it once worked, and have once again achieved the impossible, taking the century-old rusted hulk and, with a bit of oil, a few new parts, and a new set of rails, brought it back to life (**Fig. 16**). It now turns on its main pivot, raises and lowers its new chain and hook in high and low gear, and is as much a monument to bygone eras and past technologies as the temple itself.

The season can't be all hot work in the trenches or the laboratory, though. There is serious entertaining to be pursued. Visitors have included the Friends of the American Research Institute in Turkey, archaeologists from Ephesus and elsewhere, and various Turkish and American officials. And the busy social schedule includes movie nights, the World Cup (crowded around the television in the guards' quarters, cheering for the many nationalities represented among the expedition staff), and, thanks to Greenie, concerts of Mahler in Izmir and Chopin in Ephesus; or just a quiet evening chatting and watching the stars rise and set over the temple of Artemis, the moon waxing and waning, the planets shifting their positions in the sky, the Milky Way casting its pale glow through the dark night. For your support in making all this possible, from exploring the temples, houses, palaces, and graves of the inhabitants of this great city, to preserving and presenting them for others to appreciate, my deep gratitude.

Nick Cahill



Fig. 1. The Artemis temple during a brief clearing in one of the summer storms that raged through Sardis in June and July.

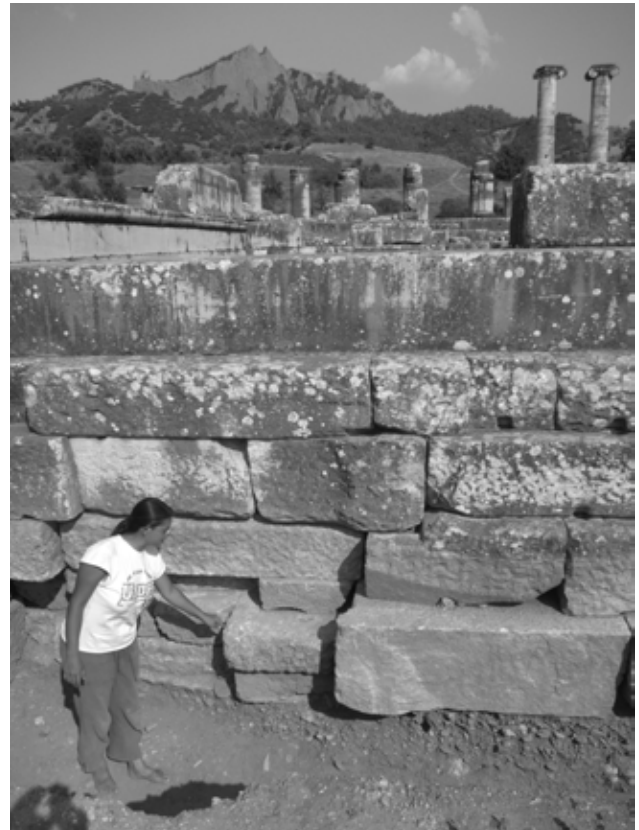


Fig. 2. Güzin Eren checks and corrects the conclusions of Howard Crosby Butler, who dug this area 100 years ago. Butler thought that the limestone blocks Güzin is pointing to belonged to an earlier temple, perhaps of the time of Croesus. Unfortunately, the blocks rest on Roman concrete, and belong to the foundations of a Roman crosswall.



Fig. 3. Brianna Bricker measuring one of the fragments of architrave, perhaps belonging to the largest block in the temple, the 30-ton beam that spanned the two central columns. The whole beam was almost three times this long; this is only the left-hand third. She is measuring a cutting for a huge clamp, apparently part of a repair after the beam cracked.



Fig. 4. Current excavations in the theater. The deep trench on the right is Tiziana D'Angelo's, in its fifth year of excavation. On the left (and oriented to the grid, rather than to the theater, for ease of recording) is Ferhat's vast expanse in the cavea, after a week of shallow excavation.



Fig. 5. Tiziana D'Angelo, Andrew Ramage, and photographer Ricky Taylor at Tiziana's Lydian house in the Theater. The unique three-nozzled lamp is visible lying in the broken hydria in the corner of the room.



Fig. 6. Greenie and Government Representative Metin İmren (Izmir Museum) inspecting the three-nozzled lamp.

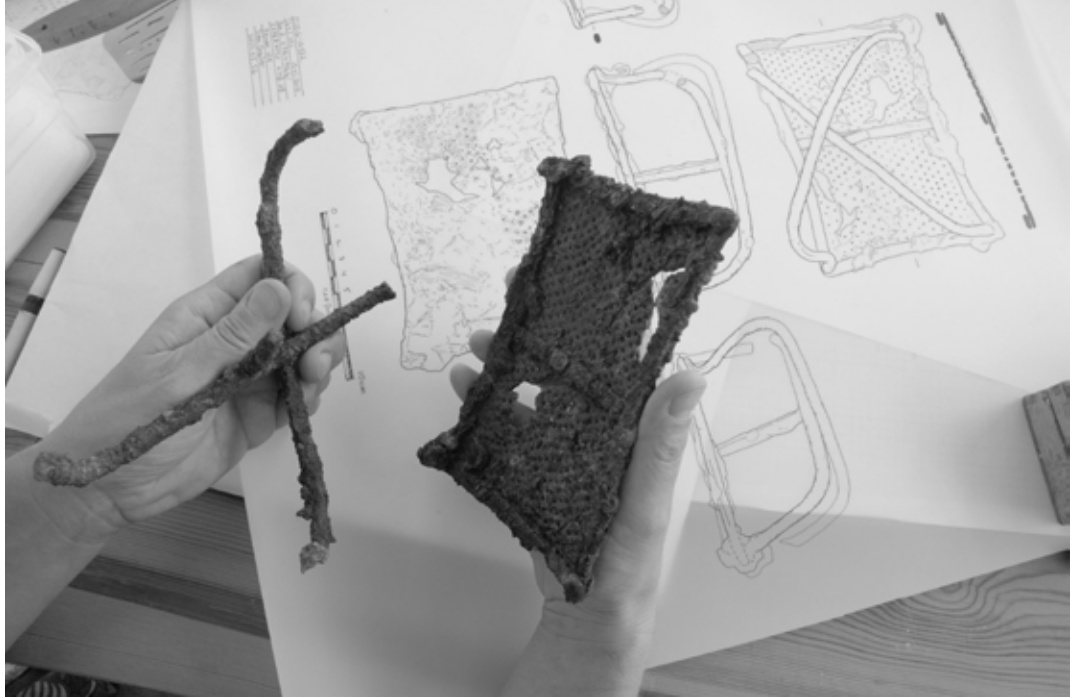


Fig. 7: Cathy Alexander drawing the grater from the Lydian house in the theater. The cross-shaped handle attaches to the four corners of the grater, with an additional strut in the middle.



Fig. 8. Tiziana, Julia Sybalsky, and Cybele Tom study objects from the Lydian house in the theater, excavated this year and last. On the left, one of the marbled omphalos phialai, and behind it, the odd lamp and the grater.



Fig. 9. Randy Souza and Metin Bey inspect Randy's trench on the slopes of Field 49.



Fig. 10. Will Bruce excavating the skeleton of an infant, one of a number of careful burials found on this hill in the past two years.

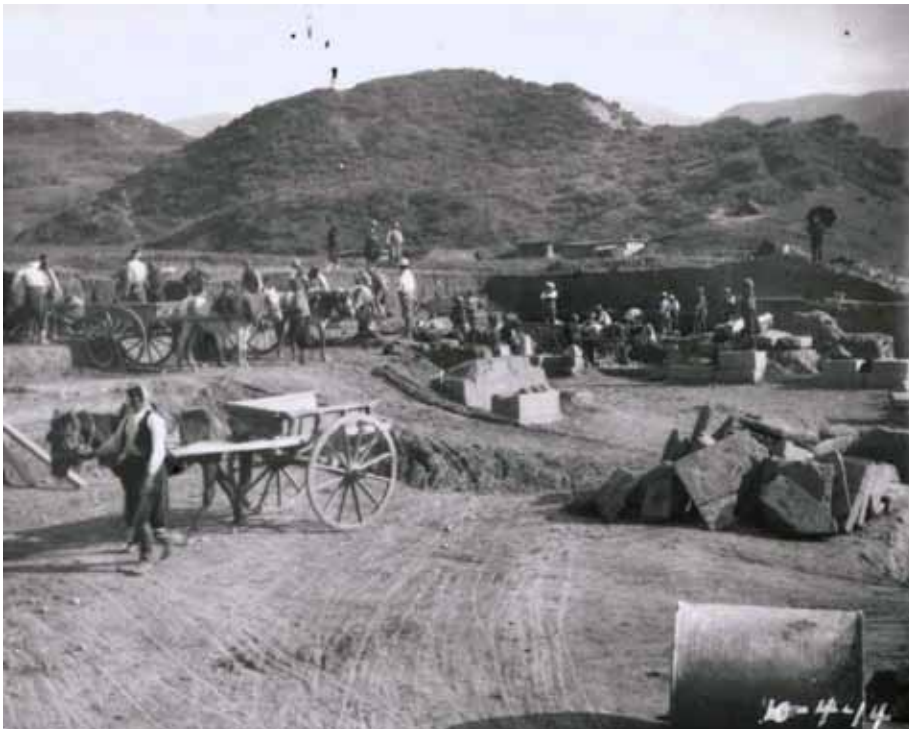


Fig. 11. The Artemis Sanctuary in 1910 after the first two weeks of excavation. The Lydian Altar is just appearing in the center of the picture, with the marble globes piled (by Butler) on a base in front; a similar globe was dedicated by "Stratonike, daughter of Demetrios," probably the early Hellenistic queen. The temple lies unexcavated to the left. The railway did not arrive until later in the season, so they used horsecarts to remove the earth. Photograph courtesy of the Department of Art and Archaeology, Princeton University.

Fig. 12. Two years later, in 1913, the Lydian Altar has been completely excavated; around it, some of the stelai were then still in place in their bases. The crane ran on the tracks in the lower left; spare track is piled in front of the altar. Photograph courtesy of the Department of Art and Archaeology, Princeton University.



Fig. 13. Work on the Lydian Altar. At right, Catherine Williams cleans the stele bases of lichen and accretions. At left, the Archaic altar LA1, built of squared blocks; a workman is cleaning the cut into the altar made by persons unknown. In the background, Brianna is studying the displaced blocks from that cut, in preparation to replacing them in their proper positions.



Fig. 14. Teoman Yalçinkaya and Brianna arranging the blocks of LA1 course by course, prior to replacing them in the altar.



Fig. 15. Catherine Williams and workmen filling voids and repairing the mosaics of the Synagogue.



Fig. 16. Teoman Yalçinkaya uses a crane to move Butler's crane from its sunken hole in the ground, to a new set of tracks. With a new chain and a little oil, the century-old machine now works almost like new, and stands tall on its new tracks.



Fig. 17. In the eggplant field near the theater, a farmer has hung apotropaic offerings on a branch: a tortoise shell and a string of eggs. It's not a common custom; none of the farmers I've talked with does it, or knows what it means; "it's just a belief of his" they claim. But it seems to work: the field is incredibly fecund, and every day the family harvests box after box of the rich purple fruit.