Boston University Center for **Archaeological Studies**



Portrait of Ethan Allen made after death by Don Sibley. Photograph courtesy of Ethan Allen Homestead Trust. See page 5.

INSIDE THIS ISSUE:

Documentary Archaeology in Northern Vermont

Archaeology and the **Center for Remote Sensing**

Honors, Awards, and Other News

Faculty Appointments 13

Center Activities 14

Degrees Awarded

16

Two Faculty Members Awarded Tenure and Promotion 17

Profiles of the Past

18

Calendar 20

Maya Archaeology in Belize, 1990: the First Field Study Program

by Norman Hammond

Boston University's first venture into Maya archaeology began successfully with the institution of the Field Study in Archaeology program in Belize in January 1990, based at the early Maya sites of Cuello and K'axob. The program objective is to teach students the techniques of field archaeology, including survey, excavation, and laboratory processing of finds, in the context of a major research project. It differs from conventional field schools in that the research objectives are held to be at least as important as the teaching, so that students learn by total immersion in the project rather than from formal class sessions, and from individual tuition in various skills by professional staff as work proceeds. The research emphasis also means that external funding for the nonteaching activities can be obtained, allowing a higher concentration of staff overall. The program was directed by myself, at Cuello, and by Professor Patricia A. McAnany at K'axob.

The 1990 Field Study program was divided into three sequent portions. It began with an overland journey through Mexico, with visits to notable archaeological sites and museums, and giving students an idea of the topography, ecology, and native populations of Mesoamerica. Thirteen students and four project staff set out from Rosebud, Texas (where the Cuello Project stores its vehicles and equipment between field seasons on a ranch), in three vehicles fondly nicknamed Mongo (a large and powerful pickup with four-wheel

drive and a winch), the Grey Ghost (a quiet, though battered, four-wheeldrive station wagon), and Stan the Van, a 12-seater bus purchased by Boston University for transporting students on the program. All the vehicles were fitted with CB radios for keeping in touch on the road in Mexico, invaluable when passing heavy trucks and for warning about hazards ahead.

Several students had elected to find out about some of the purchasing and packing that precede any archaeological project by going down to Rosebud early and helping Mark Hodges, the project manager, get things ready, while others came into Houston Intercontinental Airport in time for a day's introduction to what was in store for them over the next two weeks. We met up in Brownsville with members of a University of Arizona team who were to share our journey and camp, while working at the nearby major Maya center of San Estevan, and set off for the Mexican border. Within ten minutes the starter motor on Stan had failed, and we spent another night in Brownsville, thankful that the problem had happened sooner rather than later.

Northeastern Mexico is flat, dry, and dull: none of us felt that we were on an archaeological trip until the afternoon of the second day, when we arrived at El Tajin, principal center of the Totonac culture of Veracruz, which flourished between about A.D. 300 and 900. Here the lush tropical vegetation, the spectacular ruins, and



A Boston University undergraduate, Jacquelyn White (left), and excavation supervisor Amanda Clarke from the York Archaeological Trust in England, excavate the remains of a house of about 600 B.C.

continued from page 1
a personal tour from Mario Navarrete,
director of excavations for the
Mexican Government, at last
convinced us that we had arrived in
Mesoamerica.

The following day we followed the Gulf Coast south to the ruins of Zempoala, a great city when the Spaniards arrived in 1519, and visited the house built for Hernan Cortes in La Antigua, one of the oldest colonial structures in the New World. Then we left the sea and drove up into the mountains, to the new museum in Xalapa with its stunning display of Olmec sculptures from San Lorenzo and other sites, where we were allowed a privileged visit behind the scenes to see the La Mojarra stela, one of the most important monuments found in Mesoamerica in the past generation.

From Xalapa we crossed the Sierra Madre into the Tehuacan valley, where in the 1960s Scotty MacNeish established the antiquity of native American agriculture, and then went over the continental divide to Oaxaca, seat of the Zapotec civilization. A mid-journey break enabled us to visit the important sites of San Jose Mogote, Monte Alban (where our

visit coincided with that of the King and Queen of Spain), Yagul, Lambityeco. and Mitla, as well as the colonial buildings and markets of Oaxaca de Juárez. Then we descended through the coastal ranges to the Pacific at Tehuantepec, before ascending again into the highlands of Chiapas, and the Maya lands at last.

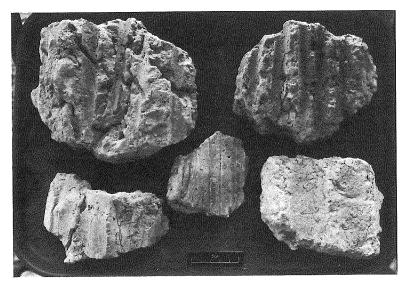
The highland Maya market town of San Cristobal de Las Casas gave most of us a first glimpse of the people whose ancient civilization we were on our way to study, and from there we turned north again, over the mountains to the great Classic Maya site of Palenque. A final day's drive

across the Yucatan Peninsula, visiting the Maya sites of Chicanna and Becan, brought us to Belize and the second phase of the program.

After days of living in hotels with swimming pools, and eating regional Mexican delicacies in roadside restaurants, we had to set up camp and build a kitchen at Cuello. A giant steel-framed shelter, designed by Mark Hodges, was rapidly put up as a combined dining hall, laboratory, and office, while an ex-Army cookhouse tent served as kitchen and store and an ad hoc surgery for our medical adviser, Dr. Barbara Clark, and a dozen bright new cabin tents were used to accommodate everybody in reasonable comfort. The camp was set on an ancient platform within a few yards of the excavation, and water was piped from the Cuello Brothers' rum distillery a short distance to the north: solar heating of the pipe enabled some people to get a hot shower at the end of the day!

The site of Cuello consists of a Classic period ceremonial precinct, as yet scarcely investigated, and a scatter of platforms south and west of it. Among these is Platform 34, a broad low elevation with a small pyramid on top of it, where excavations have been in progress since 1975. Platform 34 buries a group of small buildings set around a courtyard, and these form the earliest Maya settlement so far documented. Even though the very early radiocarbon dates from the 1975-76 seasons are now discounted, new dates run on human bone collagen from burials and on single

Fragments of daub walling aid in the reconstruction of residences. Maya houses were built of wood, tied together with vines, and plastered with daub.



grains of maize, using the AMS (accelerator mass spectrometer) systems in Oxford and Tucson, show that the site was occupied by 1200 B.C.

The objective of the 1990 excavation was to examine a sequence of buildings on the north side of the buried courtyard, the latest dating to about 500 B.C. Later layers had been removed from this area of the site in 1980 and 1987, but the exposed remains had been buried under protective backfill, so that the first task was to remove this and clean up the site. Amanda Clarke, a professional archaeologist with the York Archaeological Trust in England, taught students the basic techniques of trowelling, cleaning, preparing for photography, and recording on drawn plans and sections.

As pottery and other finds began to arrive at the laboratory, students were taken one or two at a time from the site and introduced to post-excavation processing by Martha Mast, a volunteer who, with her husband Jim, has worked at Cuello and the nearby site of Nohmul since the mid-1980s. Processing is mainly a matter of getting things clean, dry, and correctly labelled, before sorting them into categories such as pot sherds, stone tools, animal bones, and shell, each of which will later be analyzed by specialist consultants in the United States or England, but some initial analysis is needed to give feedback to the excavators.

The finds, which are the property of the Government of Belize and thus destined for the national collection in Belmopan (although some may be—and have been—given to the sponsoring institution for teaching and research purposes) need to be drawn and photographed. Sheena Howarth, a professional illustrator who has been working at Cuello and Nohmul since 1974, taught students the basics of drawing pots, stone tools, and other objects, and preparing inked versions for publication.

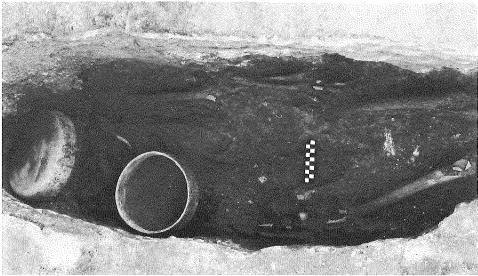
Although the first days of the excavation yielded nothing but fragmentary walls and floors, soon the shape of a Middle Preclassic house began to emerge: about thirty percent

of it lay within the excavation, the rest being either buried under an unexcavated balk to the east, or already removed in a previous season. The builders had refloored and rewalled the house on several occasions, and these accretions had to be identified and then stripped away in the reverse order to that of their construction. Among the finds as we proceeded was a cluster of fishing-net weights, ground down from sherds of broken vessels into notched ovals that would fit between the mesh of the net. Fish bones themselves were scarce in the trash deposits, but many marine shells were brought in from the coast, mostly as raw material for artifacts. The rubbish spreads behind the house were sampled using a flotation unit, from which burnt plant remains, animal bones, and occasional artifacts were recovered by graduate student Elizabeth Platt.

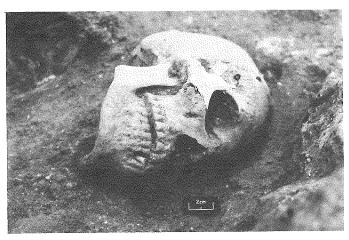
More trash, of a later period, around 400 B.C., was found in the second trench that we excavated, on the southern edge of Platform 34. In 1979 a set of massive retaining walls had been found there, but they had not been linked to the sequence of construction in the platform itself. The aim of the South Trench was to link the buried courtyard with the later walls, and to see how many periods of construction lay between the burial of the former and the erection of the latter. Although the stratigraphy of

the fills held in place by the walls proved to be complex—the result of basket-loads of different-colored soils and marls being dumped in—the overall sequence was very simple: the latest of the buildings on the south side of the courtyard had been demolished around 400 B.C., covered with rocks, clay, marl, and dirt, and the retaining walls constructed before a plaster floor was laid across the area to create the open surface of Platform 34. Trash deposits were incorporated in the fill, and also began to build up outside the retaining wall once it was built: we thus have two rich sets of artifact and ecofact data separated by a very short space of time—perhaps weeks, certainly not more than a few months.

While the remains of ancient Maya dwellings were emerging from the ground, there was for a while no sign of the people themselves. When the first burials were found, a child and a middle-aged man with a pottery jar inverted over his head and a shell bracelet, everybody felt that things had become much more interesting. Eventually fourteen burials were uncovered, allowing every student to excavate one, and some of them proved of more than usual interest. One, nicknamed "Patsy," proved to have no skull-only a bowl over where her(?) head should have been. Speculation that another bowl below continued on page 4



One of fourteen Middle Preclassic burials found at Cuello in 1990, dating to about 600 B.C.

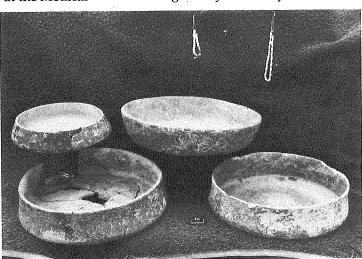


The well preserved skull of Burial 147, a young woman. It was protected by a decorated pottery dish, and she was accompanied by a shell bracelet.

continued from page 3 her knees would contain the skull proved correct, but it appeared rather small for an adult. The mystery remained until the last day of excavation, when the skeleton of a child was found at a slightly lower level: the skull seems to have belonged to it—but leaves the fate of Patsy's head as obscure as before.

The pottery vessels buried with these two individuals, and the strings of shell beads adorning their bodies, have been brought back to Boston University, an extended loan from the Government of Belize, which may turn into an outright gift when our Museum of Archaeology is established (Belize rightly insists that material donated must be in a publicly accessible collection where scholars have access to it). Other material from the site has also been shipped back under permit, most of it bound in the short term for our specialist analysts: the pottery is now at the University of Arizona, being examined by Dr. Laura Kosakowsky; the human remains at the Medical

Grave group from Burial 152. The person buried in this grave was beheaded. These vessels and their accompanying shell and jade jewelry have been lent to Boston University by the Government of Belize for further study.



College of Ohio with Dr. Frank Saul and his wife and collaborator Julie; the stone tools in California with Dr. Rebecca McSwain; and the animal bones on their way to Dr. Elizabeth Wing at the Florida Museum of Natural History. The carbonized plant remains will be analyzed at Boston University, however, under the direction of Professor Julie Hansen, and both the shell beads and the daub fragments—the remains of wall cladding from wood-framed houses —are the subject of student projects.

Patricia McAnany, having spent the first half of the semester on campus teaching two courses (I took over for the second half myself), arrived during the break, with her own professional staff including her husband, Dr. Thomas Killion, and graduate student Daniel Finamore as excavation supervisor. After working close to home for two months, the class now faced a 45-minute drive each day across the dry bed to Pulltrouser Swamp to reach the little site of K'axob. This site was first investigated by McAnany in 1981, and proved then to have finely stratified levels of early occupation, buried below later construction and erosion deposits. Her objective this year was to expose a much larger area of these early levels, which offer the opportunity to study a community as old as much of Cuello, but set in a totally different environment, in the wetlands instead of on a limestone ridge. All archaeologists have their own approaches: while the class employed the knowledge that was gained at Cuello, they also acquired at K'axob a second and different perspective on looking into the Maya past.

Plans are already in hand for the next Field Study program in 1992: the Government of Belize has offered us the opportunity to work at La Milpa, a large Classic Maya city deep in the rainforest of western Belize, close to the frontiers of Guatemala and Mexico. First noted by the late Sir Eric Thompson on a muleback reconnaissance in 1935, La Milpa has several hundred-foot high pyramids bordering its main plaza, which is the length of a football field in each direction. Two courts for playing the sacred Maya ballgame pok-ta-pok lie within the plaza, and a series of sculptured stone stelae depict the ancient rulers of the city. One of these, which we turned over on an exploratory visit in March, is clearly sixth century A.C. or earlier in style, while the others may go as late as the end of the ninth century. There has been some serious looting of the main structures, but this has also revealed earlier buildings within them, and there is a good chance that the origins of La Milpa will be found in the Preclassic period. Some clearing and mapping has begun, as part of a regional survey program directed by Thomas Guderjan, but the detailed study of La Milpa, a city that flourished at the apogee of Classic Maya civilization in the seventh through ninth centuries A.C., will be Boston University's contribution to the Columbian quincentennial of 1992.

Norman Hammond is Acting Chairman of the Department of Archaeology and Professor of Archaeology at Boston University.

"Come out of there, you damned old rat": Documentary Archaeology in Northern Vermont

by Leslie A. Mead

In May of 1775, Ethan Allen and a contingent of the Green Mountain Boys crossed from the Vermont to the New York side of Lake Champlain in several small boats. Their intention was to initiate the rebel colonists' first offensive action of the Revolutionary War by storming British-held Fort Ticonderoga. The ensuing night raid so surprised the fort's commandant that he met his opponent at the doorway to the officer's quarters without his pants and demanded to know under whose authority the attackers were acting. Allen resoundingly replied "In the name of the Great Jehovah and the Continental Congress!"

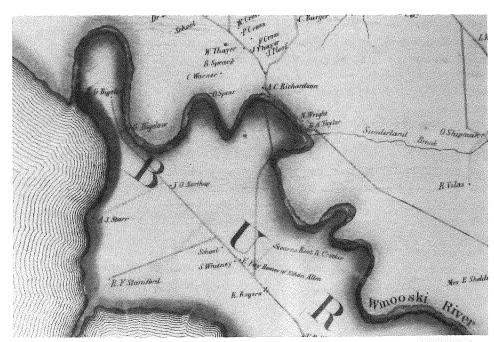
For Vermonters, Ethan Allen is the State Hero. It seems that every native of the state has some favorite anecdote describing Allen's swashbuckling daring-do. There is a mythical aspect associated with Ethan Allen, however, as with many heroes of the Revolutionary War, and this sometimes overshadows the reality. This narrative of the Battle of Fort Ticonderoga, for example, was standard fare when I was in grade school in Vermont. It is, however, largely a construction of Allen's own flair for public relations and some heavy revisionism on the part of nineteenth-century historians and biographers. As a result, the phrase "In the name of the Great Jehovah and the Continental Congress" has been inextricably linked with Ethan Allen. The reality is somewhat different. In actuality, Ethan had no authorization to act on behalf of the Continental Congress at Fort Ticonderoga and several prominent clergymen of Allen's day would probably have maintained that Allen's own unorthodox religious beliefs precluded any supernatural support, unless it came from a nether region. Still, the question of where Allen's authorization came from is probably

moot since most other accounts maintain that Allen's response to the British query had nothing to do with either the Continental Congress or the Almighty. Instead, it was more along the lines of: "Come out of there, you damned old rat" or, more colorfully, "Come out of there you sons of British whores, or I'll smoke you out." These responses were neither a great demonstration of soaring patriotic spirit nor suitable for grade school textbooks.

In Vermont, however, myth mixes with reality and Allen is as much beloved for his eccentricities as his heroic deeds. Virtually any new scholarship relating to him has an eager and well-informed Vermont audience. There was considerable interest when, in 1978, the Winooski Valley Park District, with local historian Ralph Nading Hill, purchased the reputed location of Ethan Allen's only permanent Vermont residence. The property was located on a terrace overlooking the

broad floodplain of the Lower Winooski River Valley. Archaeological testing documented that the property was occupied sporadically by Native Americans since the Late Archaic (2,700 to 6,000 B.P.) and continuously farmed by European Americans since the late eighteenth century.

In 1980, Hill and the Ethan Allen Homestead Trust began the restoration of the structure on the property that local lore identified as Allen's house. This building was a single-storey structure with a central chimney, small even by eighteenthcentury standards. Even with the extensive alterations to the house since the eighteenth century the humble nature of the structure caused people to question whether or not the house belonged to Ethan Allen; it simply did not fit the profile of the man or his fashionable second wife, Fanny. It was clear from the land-title records that Allen had owned the land on which the structure stood, but examination of the documentary record did not provide evidence that he had ever actually lived in the structure itself. This question has remained a sticky issue throughout the years since.



Detail from Wallings (1857) map of Chittenden County identifying the "Homes of Ethan Allen." Photo courtesy of University of Vermont, Bailey-Howe Library Special Collection.



Photograph of original photo of Ethan Allen Homstead (about 1900-1910), courtesy of Richard S. Kanaski. Original photograph courtesy of Winooski Valley Park District.

continued from page 5

This past summer, the Ethan Allen Homestead Trust, under a grant from the Vermont Council on the Humanities, made the decision to include an archaeological component in their ongoing efforts to expand interpretation of this site, and I was invited to supervise the archaeological investigations. The first step of the archaeological research was the development of a long-term research design. The Trust envisioned a plan that would pave the way for interpretation of the site in both an historical and a broad cultural framework, and allow integrated interpretation of the occupation of the site from the prehistoric period to the present.

In the last issue of *Context* (8: 1–2 [1989] 5–8), Office of Public Archaeology historian, Nancy Seasholes, showed how historical research, particularly inspection of historical maps, aided the Central Artery Project in locating potential

sites, planning excavation, and interpreting the results. Research at Ethan Allen Homestead followed along these same lines. While historians have long used original documents to form a base for their research, it is only in the last two decades that American historical archaeologists have begun to exploit this resource. While we look at many of the same documents that historians use, we focus on using a broader, more cultural, approach. We use documents not only to reconstruct the history of a site, but also to understand past culture and explain the ways in which people manipulated that culture. As Dr. Mary C. Beaudry's recent book Documentary Archaeology in the New World illustrates, the utility of historical documents lies in their ability to aid us in the building of rich interpretations of culture based on the archaeological data.

It was toward the eventual construction of this rich, interpretive framework that much of the documentary component of the research design for the Ethan Allen Homestead was oriented. For this initial research design phase, the largest part of our research consisted of delving into the site's history via these documentary resources. The construction of this historical picture involved tracing numerous primary documentary sources (censuses, directories, deeds, probate records, court records, surveyor's notes, newspapers, photographs, and personal papers of both Ethan and his brother, Ira). We also conducted interviews with former residents of the site and people involved in the restoration of the building.

Eventually, the picture of the site that emerged from the process was as colorful, contradictory, and as reflective of traditional Vermont as the Homestead's most famous owner. Perhaps one of the most exciting, though unanticipated, discoveries of the summer involving documents was



Ethan Allen Homestead as reconstructed by Ralph N. Hill and the Ethan Allen Homestead Trust. Photograph by Richard S. Kanaski.

made by Rachael C. Sherman, my volunteer research assistant. After a considerable amount of time going through the papers of Ira Allen at the Vermont State Archives, Rachael found a document that appears to support claims that this was indeed the house in which Ethan Allen lived. The document is actually a deposition attached to a petition to the Vermont State Assembly in reference to a legal dispute over the ownership of Allen's land after he died. This deposition stated that Ethan lived in the house built by his brother Ira (which we knew before the project began) and that this house was located on the eastern side of Lot 32. As far as our reconstruction of the former lot lines for the First Division of Burlington Lands can show, the present Homestead structure is located on the eastern half of Lot 32. Thus far this has been the only concrete evidence that Ethan Allen actually lived in the Homestead structure.

Perhaps more important than the question of whether or not Ethan Allen actually lived at the site was the information gathered on the occupants of the site before and after he was there. As the research progressed it became apparent that if Ethan Allen lived on the site it was an anomaly. In fact, Ethan is the only owner of the property that we cannot

prove was living in another location at the same time he or she owned the Homestead property. This fact is important because it means that the Homestead structure itself was probably occupied by farming tenants, except for the period when Allen lived there. The common conception/myth of the Vermont farmer is that he is an independent landowner, practicing diversified agriculture well into the nineteenth century. The evidence from the Homestead suggests that this picture was not applicable to all Vermont farms, particularly those found in the Champlain Valley. A large number of questions remain to be answered regarding these tenant occupations. Since tenant farmers do not appear in the documentary records in any substantial way, many of the questions that we have about how they lived and farmed on this property will have to be addressed by archaeological research.

The search for documentary evidence relating to the site was exciting and challenging. Documentary information turned up in all kinds of unexpected places, including the basement of Burlington City Hall and various personal collections of Allen memorabilia as well as the usual locations, such as the Chittenden County Courts, Vermont

State Archives, and the Wilbur Special Collections Division of the University of Vermont's Bailey-Howe Library. At times it seemed as though we were chasing down documents all over northern Vermont. One document that posed a real challenge was a letter from Ethan to his brother Ira. In it Ethan asked Ira to build a house on the Winooski River property that Ethan would occupy when he moved to the Burlington area. This letter reputedly contained very detailed information about the length of the boards to be cut and other specification for the proposed house. At first we were told that this letter was in the Allen Papers in Special Collections at the University of Vermont, but we could not find it there. Then we were told someone had seen it in the Vermont State Archives. We looked through various collections of personal papers at the Vermont State Archives, and it was not to be found there either. The search proved to be a frustrating exercise. We had some idea of what was in the letter because it was quoted in several publications, but we did not find the original of this important document.

In the end, the Ethan Allen Homestead, like its former owner, had both a mythical aspect and an even more interesting reality. One of the larger myths is that Vermont's founding father lived in a "Monticello of Vermont," and the reality is that Ethan Allen's final home was the humblest of farmhouses. A second myth is the idea that nineteenthcentury farming in Vermont was carried on exclusively by taciturn, hardworking, independent landowners. The reality is that at least a significant minority of farmers in the Champlain Valley held their land through tenant agreements, as illustrated by the extensive tenant farming history at this site.

Further explorations of the myths and realities of this site are planned for the future. At present the Ethan Allen Homestead Trust is in the process of raising funds for an excavation season at the site this

Archaeology and the Center for Remote Sensing

by Timothy G. Baugh

A number of research projects involving remote sensing and the development of geographical information system databases are being conducted by members of Boston University's Department of Archaeology in conjunction with the Center for Remote Sensing. These projects are using satellite imagery, airborne data in the form of aerial photography and computer-compatible tapes, and subsurface data generated by ground-penetrating radar, electrical conductivity meter, and proton magnetometer. The projects are being carried out on three continents (Europe, Asia, and North America) and articulate with a variety of research objectives.

Europe

Archaeological research involving remote sensing is being carried out in three countries of Europe: Italy, Greece, and Yugoslavia. These projects include both regional and site surveying and mapping. Paula Lazrus, who is a doctoral student in the Department of Archaeology, has used multispectral and panchromatic SPOT images (with twenty-meter and ten-meter resolution, respectively) in

continued from page 7
coming summer. The documentary
research will continue with more
depth and a broader focus. We will be
studying how this site fits into the
local community and the larger
Champlain Valley region, with the
intention of obtaining a better
understanding of farming practices
and life in the eighteenth and
nineteenth centuries in northern New
England.

Leslie A. Mead is a student in the Ph.D. program in Archaeology at Boston University.

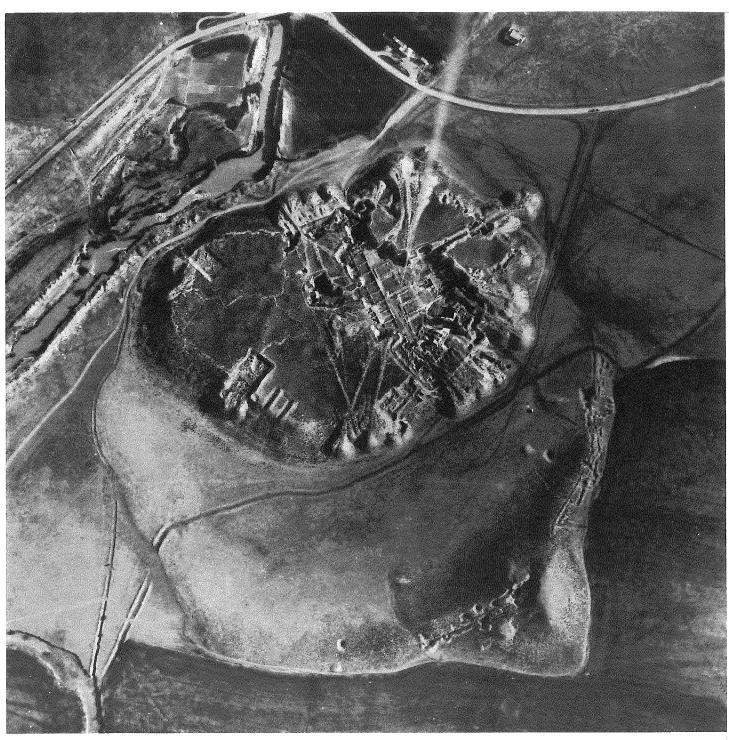
conjunction with aerial photography and various maps to identify different ecological zones (e.g., forest, marsh, grassland, and cropland) for the island of Sardinia. From these ecological zones, specific areas will be selected for surveys to locate archaeological sites. From this information, an examination of Bronze Age settlement patterns with an emphasis on pre-Nuragic (about 2000 to 1500 B.C.) farm sites may be generated. This information will greatly contribute to the archaeological investigation of the transition from farming to pastoralism that occurred in the Nuragic period (about 1500 B.C.).

Further west, James Raab-Rust, also a graduate student in the Department of Archaeology, has been using a multispectral SPOT image with twenty-meter resolution and covering a sixty-kilometer by sixty-kilometer area to classify land-use areas and soil types in eastern Crete. The actual field work (consisting of pedestrian surveys) is being conducted around Kavousi by Don Haggis of the University of Minnesota. To initiate this work, the Kavousi Excavation Project, which is under the auspices of the American School of Classical Studies at Athens, purchased a SPOT photographic image. Raab-Rust performed a manual (i.e., noncomputer) analysis of this image to develop a land-use classification map. Numerous land-use categories were defined and later refined by computer analysis. A current version of this map is being used in the field by Haggis. One of the more interesting aspects of this research is that Haggis has found between ninety percent and ninety-five percent of the known Neolithic sites within one particular land-use category. In the summer of 1990 new computer maps will be taken into the field and used for continued surveying efforts and ground-truthing to better comprehend Neolithic settlement patterns that are at the present poorly understood for Crete. Future investigations will aim at modeling non-palatial Bronze Age settlement patterns and economic systems within the palatial structure; these analyses will involve the use of the predictive capacities of a geographical information system (GIS).

Elsewhere in Greece, Tom Tartaron, a graduate student in the Department of Archaeology, has been conducting an electromagnetic survey using the Geonics EM-31D conductivity meter to identify subsurface features at Megalo Nisi Galanis, a Late Neolithic and Early Bronze Age site near the Macedonian town of Kozani. Several areas of low conductivity have been identified, and these may correspond with Late Neolithic village remains and possibly an ancient stream bed. Test excavation will be conducted in the near future to examine these anomalies and to determine their significance. The project is under the direction of Dr. Michaelis Fotiades, University of Michigan, Ann Arbor.

The EM-31D conductivity meter has also been used along with a proton magnetometer in 1988 at the Sanctuary of Poseidon at Isthmia in the Greek Peloponnesus. The subsurface survey was carried out under the direction of Fritz Hemans, then Assistant Professor at Boston University, and currently Assistant Director of the Isthmia Excavation Project, in order to determine topographical features and locate structures at the sanctuary, including the entrance to the later stadium. This information guided the placement of test trenches in the summer and fall of 1989, when excavations by the University of Chicago were renewed under the direction of Elizabeth R. Gebhard, Professor of Classics at the University of Illinois at Chicago.

The facilities of the Center are being used in the continuing investigation of the Hellenistic, Roman, and Late Antique city of Stobi in Yugoslavian Macedonia. A joint Boston University and Yugoslavian team (Codirector, James Wiseman of Boston University) conducted excavations and other research there from 1970 to 1981, and the staff are now preparing the final publications. Al B. Wesolowsky, Research Fellow of CAS and Managing Editor of the *Journal of Field Archaeology*, is now building a



The photograph above shows the city of Gordion, capital of the Phrygian king Midas, which has been excavated to the destruction level of 700 B.C. The inner city mound, surrounded by fan-shaped dumps, is 500 by 300 meters across. Traces of the outer circle of walls link it with the smaller fortress at lower right where a triangle of earth remains of the siege ramp that enabled Cyrus the Great to take the city in 547 B.C. Balloon aerial photograph by J. Wilson and Eleanor Myers.

geographical information system (GIS) database that will be used by Wesolowsky, Wiseman, and other members of the Stobi Project to investigate the relationship of this site to its ancient landscape and the availability of local resources to the inhabitants of Stobi. Wesolowsky, who was a senior member of the project from its inception, has already digitized data from the West Cemetery, where he directed excavations. This information will be combined with the digitization of the

entire site, a regional contour map, and Landsat satellite imagery, along with other information. This project represents one of the first attempts to build a GIS database at the Center for Remote Sensing.

Asia

Research Professor J. Wilson Myers and Research Fellow Eleanor E. Myers, Department of Archaeology, Boston University, returned to Turkey continued on page 10 continued from page 9 in the summer of 1989 to continue their pilot project, funded by the Institute of Turkish Studies, for a publication to be called *An* Archaeological Atlas of Turkey: Representative Sites from the Air. Using twin cameras suspended from their thirty-three foot tethered blimp, they collaborated with Professor Kenneth Sams, University of North Carolina, at the Phrygian capital of Gordion to record both the fortified city mound and the outer ring defenses. Continuing their 1988 collaboration at the Lydian capital of Sardis with Professor Crawford Greenewalt, University of California at Berkeley, they added to earlier aerial photographs, views of the city acropolis, the temple of Artemis, and the gold- and silver-refining complexes excavated on the banks of the Pactolus river. At the end of the season, the Myers returned for a third working visit to Iznik (ancient Nicaea) to record from the air the Ottoman ceramic kilns excavated by Professor Oktay Aslanapa of the University of Istanbul.

Professor Elizabeth Stone of the University of New York at Stony Brook, and Professor Paul E. Zimansky, Department of Archaeology, Boston University, have been collaborating on the investigations at Tell Abu Duwari in southern Iraq (see Context 7:3-4 [1989] 1-4). A collection of aerial photographs from a kite, begun in 1989 and continuing in 1990, will be scanned and transferred to the Sun computer system. At that time, digital image processing of these photographs will allow for the possible detection of previously unrecognized structures and features over the entire site.

North America

A number of projects using subsurface remote sensing are being conducted in Massachusetts. Among these are studies at the Spencer-Pierce-Little site (*Context* 8:1–2 [1989] 1–3) near Newburyport under the direction of Professor Mary C.

Beaudry, Boston University. This project used the EM-31D and groundpenetrating radar to locate the remains of a historic cider house and press to the west of the house and seventeenth-century structures to the east. Sally Pendleton, a graduate student in the Department of Archaeology at Boston University, utilized subsurface remote sensing during the cemetery investigations at the Prince Hall Mystic Cemetery in Arlington. Another cemetery project, under the direction of Dr. Ricardo Elia, Director of the Center's Office of Public Archaeology, will use subsurface remote sensing and will focus on Boston's Old Granary Burying Ground, which contains the grave of Paul Revere and other early American patriots. The intent of both of these projects is to locate potential gravesites that are not properly marked so that future improvements would not disturb the burials. Members of the staff of the Office of Public Archaeology and graduate students in the Department of Archaeology also used groundpenetrating radar for subsurface testing in connection with the Central Artery Project.

Another historical-archaeology project in New England is being conducted by Leslie Mead and Laurie Victor (see this issue of *Context*, page 5) at the Ethan Allen homestead

in Vermont. These two Boston University archaeology students are correlating contemporary USGS topographic maps with historical maps and documents concerning the location of the historic plot. To accomplish this task, Mead and Victor are building a GIS database that will allow them to overlay the maps and to measure distances from identifiable features on the different map layers.

I am applying the Thermal Infrared Multispectral Scanner (TIMS) data to the study of protohistorical agricultural systems in the high altitudes of the Galisteo Basin of New Mexico. The Thermal Infrared Multispectral Scanner collects information in six bands or channels of thermal radiation, and has an accuracy of 0.1 of a degree centigrade. The basic unit of analysis is the picture element or pixel, the size of which varies according to sensor height as determined by the plane's altitude. For example, if the aircraft carrying the TIMS sensor flies at an altitude of 6,600 feet, the pixel size or resolution is five meters. The latest Landsat satellites, on the other hand, use the Thematic Mapper sensor, which has a resolution of thirty meters on a pixel side. The TIMS data at a resolution of five meters is capable of detecting subtle, linear archaeological features such as roads or footpaths and agricultural features. For example,



Carol Stein, graduate student in the Department of Archaeology, and Tim Kennedy of the Office of Public Archaeology using ground-penetrating radar in Boston.



TIMS image of San Lazaro pueblo in New Mexico. Note the older protohistoric pueblo on the left and the younger historical-period pueblo on the right.

the TIMS sensor has been employed to detect prehistoric paths in other regions, as in the studies of the Chacoan road system in the Southwestern United States.

In the Galisteo Basin just south of Santa Fe, New Mexico, Pueblo Indians constructed cobble-line, pebblemulched fields that retained soil moisture and may well have acted as solar collectors, permitting the extension of the growing season into the early spring and late fall. It was hoped that the TIMS sensor with fivemeter resolution would be able to detect the differences in the thermal gradients between these fields and the surrounding matrix, but such has proven not to be the case. This situation may in part be related, however, to the hour of the overflight, which occurred at midday—a time when the thermal gradient was essentially equalized. To compensate for this deficiency I have been building, with the assistance of Lara Pridhodko, an undergraduate at Boston University, a GIS database using soil and contour maps in conjunction with black-and-white and color infrared photographs to compute several variables (such as

slope and aspect) for the known agricultural plots; then locations for unknown fields can be predicted. These predictions can then be groundtruthed to evaluate the accuracy of the model and to date the fields by their associated ceramics. This project emphasizes the understanding of a regional exchange network between Puebloan people in the Galisteo Basin and bison hunters of the southern Plains. The premise is that as Puebloan farmers put more time and energy into the agricultural cycle, less time and energy was devoted to hunting. A protein deficiency ensued, and it could be best compensated for through the establishment of an exchange alliance in which domestic products (such as maize, pottery, and other items) were traded for dried meat, bison hides, and salt.



Map of New Mexico

As these examples show, archaeologists at Boston University are conducting a variety of research projects involving applications of remote sensing. The multidisciplinary nature of these projects, and the cooperation between faculty and students at Boston University and scholars from other institutions throughout the United States and other countries, promise that remote sensing will continue to play an important and prominent role in archaeological research.

Timothy G. Baugh is a W. M. Keck Postdoctoral Fellow in Remote Sensing and Visiting Assistant Professor of Archaeology at Boston University.

Honors, Awards, and Other News

Faculty

Kathryn Bard, Assistant Professor in the Department of Archaeology, has been awarded a grant of \$15,022 from the National Geographic Society to excavate a Predynastic settlement (dating to about 3500-3100 B.C.) in the Hu-Semaineh region of Upper Egypt. The site was discovered by Bard during an archaeological survey in the region in 1989. Funds from the grant will also support continued regional archaeological and environmental studies relating to existing Predynastic sites. Charcoal samples from this site (SH) and another Predynastic site (HG), which were processed in the radiocarbon laboratories at Oxford University and Southern Methodist University, yielded calibrated dates in the fourth millennium B.C.

Clemency Coggins, Adjunct Associate Professor of Archaeology, is a member of the founding Editorial Board of the *International Journal of Cultural Property*. The first issue of the new journal, which will be published by de Gruyter (Berlin and New York), is expected to appear in 1991.

Mary C. Beaudry, whose promotion to Associate Professor of Archaeology is announced elsewhere in this issue, and Stephen Mrozowsky of the University of Massachusetts, Boston, have jointly received a grant of \$7,500 from the Lowell Historic Preservation Commission Cultural Programs. The grant will fund the writing and preparation of camera-ready copy for a popular booklet on archaeology at the Boott Mills boardinghouses in Lowell, Massachusetts (see Context 5:3 [1986] 8-12). Grace Ziesing, who received her M.A. in archaeology from Boston University, will write the text for the booklet.

Norman Hammond has been awarded £1000.00 by the Society of Antiquaries of London to continue a program of obsidian hydration dating in the Maya lowlands. Such dating is continued on page 12

continued from page 11 particularly important in the lowlands where carbon samples are often scarce because the tropical climate destroys many organic remains, and where samples are available, the calibration curve for some crucial periods such as the mid-first millennium B.C. is unhelpful.

Professor Hammond's two sites in northern Belize, the early village of Cuello (1200 B.C. -A.C. 300) and the larger community of Nohmul (200 B.C.-A.C. 400 and A.C. 800-1100), have yielded a stratigraphic sequence covering some 2,300 years, and more than eighty radiocarbon dates have been processed from Cuello alone. A project is now under way to establish a hydration rate for obsidian in the area, also with a grant from the Society of Antiquaries, and the sources of the obsidians will be ascertained using the newly developed ICP method, in collaboration with Professor Gene Hall at Rutgers University. The hydration-rate temperature probes will be recovered in March 1991, and dates can then be obtained from over 100 fragments of obsidian from strategic contexts at the two sites. The obsidian chronology will complement that based on the radiocarbon dates, and in many Maya sites will provide a much-needed substitute for it.

Julie Hansen, who will be on leave for the academic year 1990-91, has received a University Teacher's Fellowship from the National **Endowment for the Humanities** (\$27,500) for the period September 1990 through August, 1991. Professor Hansen will be writing a book entitled The Archaeology of Plants: Paleoethobotany in the Prehistoric Old World. The book will deal with the problems addressed by palaeoethnobotanists' work in the Near East, and other lands that border the Mediterranean. Professor Hansen will be doing her research at Cambridge University, Cambridge, England, where she has been named a Fellow at Lucy Cavendish College.

During July 1990, Professor Hansen will continue her research on Cyprus on the palaeoethnobotanical study

from several sites dating from the early Neolithic to the late Bronze Age. She has been awarded a travel scholarship (\$1,500) by the Women's Travel Club of Scituate, Massachusetts, to pay for transportation and per diem while on Cyprus.

David Kennedy, who was
Associate Professor of Archaeology at
Boston University during 1989–90,
has seen two of his books appear
during the past academic year. He is
co-author with Derrick Riley of Rome's
Desert Frontier, published jointly by
Batsford of London and the
University of Texas Press, and is the
editor of Into the Sun (Collis
Publications: Sheffield), a collection of
articles on aerial photography in
archaeology in honor of Derrick Riley.

Curtis Runnels, Assistant Professor in the Department, has received several honors during the past several months, including election to two prestigious organizations. He has been elected a Junior Fellow of the The Humanities Foundation of the College of Liberal Arts at Boston University for 1990-91. Fellows of the Foundation meet monthly throughout the year to discuss their research, and Junior Fellows are relieved of other University responsibilities during one term; Professor Runnels will be off during the spring term. His project is to write a book, Greece before the Greeks, for which he has a publication contract with Stanford University Press.

Professor Runnels has also recently been elected a Fellow of the Society of Antiquaries of London. Founded in 1708 and granted a Royal Charter in 1751, the Society of Antiquaries is the world's oldest and most prestigious archaeological association, having such distinguished members as Prince Charles, the Duke of Gloucester, and the Queen of Denmark. Runnels is only the third professor at Boston University who has been so honored; Professors Norman Hammond and James Wiseman, both of the Department of Archaeology, are also members of the Society.

The Institute for Aegean Prehistory has awarded Runnels a grant (\$3,700) for the Swedish-American Berbati

Project for work in May and June. This is for the last season of this regional survey project in the vicinity of Mycenae. A report on previous field work has just been published in the *Opuscula Atheniensia* by Berit Wells, Curtis Runnels, and Eberhard Zanger.

Professor Runnels has also been notified by Stanford University Press that a book he edited and to which he contributed, *Artifact and Assemblage*, has been accepted for publication. The volume deals with some of the material from the Argolid Survey, 1979–83, a project that was sponsored by Stanford University.

James Wiseman, who is on an extended sabbatical leave from the University, has received three national awards for research.

He currently holds a University Teacher's Fellowship from the National Endowment for the Humanities for research on Stobi, an ancient city in Yugoslavian Macedonia. The principal focus of his research this term has been the preparation of a volume in a new series being published by Princeton University Press on the final results of the joint American-Yugoslav Archaeological Project at Stobi, 1970-1981. Wiseman, who was Project Codirector and Field Director, is writing a synthesis of the archaeological and other investigations at Stobi, as well as a study of the inscriptions. His study of the nearly 600 Greek inscriptions from the theater will comprise volume 3 in the series. The synthesis, presented in the form of an historical narrative, will appear in volume 7, along with a study of the other inscriptions, historical testimonia, a history of the excavations, and an account of the archaeological strategies, methodologies, and kinds of documentation employed at Stobi.

During the 1990–91 academic year Wiseman will be a Fellow of the American Council of Learned Societies and Mellon Fellow at the Institute for Advanced Study in Princeton, where he will be in residence.

The awards are for a book on the

European provinces of Greece during the late Republic and the Roman Empire. The book will provide an integration of archaeological and historical studies, and will deal with such topics as socioeconomic change, the relation of urban centers to the countryside, imperial and local administration, and relations between Romans and the indigenous populations. The topic represents in one sense an extension of Wiseman's research over some thirty years, much of it carried out in the field. He has directed two long-term projects, including excavation, in Corinth and the Corinthia, and at Stobi in Macedonia, and has lived and travelled extensively throughout the Greek mainland. The volume will also provide an overview of the status of current research by scholars from many countries on Roman Greece.

In connection with research for both projects, Wiseman will spend much of the summer of 1990 in southeastern Europe: Greece, Yugoslavia, Bulgaria, and European Turkey. He will be accompanied by his wife, Lucy Wiseman, who was a member of the Stobi staff and continues to be involved in the preparation of the results of the research for publication.

Students/Alumni(ae)

Lorren Jackson, undergraduate in the Department of Archaeology, has received the Edwin and Ruth White Prize, which is awarded annually by the Humanities Foundation of the College of Liberal Arts. The Prize carries with it an award of \$875.

Jeffrey Jobe, graduate student in the Department, presented a paper last summer entitled "Preliminary Archaeobotanical Material Recovered from Middlebury Plantation" at the meeting of the Society for Economic Botany, which was held at the University of Tennessee in Knoxville.

James E. Krolikowski (M.A. 1983) is the first recipient of the Christa McAuliffe Sabbatical Award to write a high school textbook on New Hampshire history entitled *New Hampshire: A State of Society.* He has recently collaborated with the New

Hampshire Bar Association on a book, forthcoming in 1991, dealing with all New Hampshire court cases that were sent to the U.S. Supreme Court.

Robin Mills (B.A. 1989)
participated in the Radiocarbon
Dating Internship at the Godwin
Laboratory at Cambridge University,
Cambridge, England, SeptemberDecember, 1989.

David B. Landon, a Ph.D. candidate in the Department, has written a prize-winning paper that will be published in Volume 17 of Northeast Historical Archaeology, the journal of the Council for Northeast Historical Archaeology (CNEHA). Landon presented the paper, "Tooth Increment Analysis: The Potential for Applications in Historical Archaeology," at the annual meeting of the Council in October 1989, where it was judged best in the CNEHA studentpaper competition. The award included a cash prize of \$100 and a one-year, complimentary membership in the organization.

Leslie A. Mead, a student in the Ph.D. program, was a research assistant for the Lowell National Historical Park Survey Project during the fall 1989, and she will supervise archaeological investigations at the Ethan Allen Homestead in Burlington, Vermont during the summer, 1990 as she did in 1989 (see page 5 of this issue of *Context*).

Elizabeth Shapiro Peña (M.A. 1987; Ph.D. 1990) holds the New York Archaeological Council Student Prize for 1990. She presented numerous papers at professional meetings during the year, and has been elected to the Executive Board of the Council for Northeast Historical Archaeology.

Charlene Quirt, an undergraduate major in the Department of Archaeology, has received the Case Scholar Award of the College of Liberal Arts for 1990.

John J. Shea (B.A. 1982, now a Ph.D. candidate at Harvard) was the recipient of the Harvard University Danforth Award for Distinction in Undergraduate Teaching for 1989. Shea returned to Boston University during 1989–90 to serve as a Lecturer in the Department of Anthropology.

Faculty Appointments

Two new faculty members will be joining the Department of Archaeology in September 1990, Professor Murray McClellan to teach Classical Archaeology, and Professor Timothy G. Baugh to teach North American Prehistory and remote sensing methods and applications.

Murray McClellan, who will be Visiting Assistant Professor of Archaeology for two years, took his B.A. at Oberlin College and his Ph.D. at the University of Pennsylvania in 1984. Prior to that he was at the American School of Classical Studies in Athens as Arthur W. Parsons Fellow and as Secretary of the School. His most recent teaching positionwas at Emory University in Atlanta.



Murray McClellan

McClellan's main focus of research is in Cyprus, where he has been Director of the University of Pennsylvania and University of Missouri-Columbia excavations at Kalavasos-Kopetra, a Late Roman settlement site, since 1987. He has worked in Cyprus since 1984, and has also dug in Egypt, Greece, Libya, Jordan, and Israel.

McClellan's other major interest is in ancient glass, the subject of his dissertation. He is especially concerned with luxury glass, including such objects as perfume bottles, and is in charge of publishing the glass beads from the Athenian Agora, and numerous finds from sites in Cyprus.



Timothy Baugh setting up the Center for Remote Sensing's new electronic total station.

continued from page 13

Tim Baugh has already been at Boston University for a year, as a W.M. Keck Postdoctoral Fellow in the Center for Remote Sensing and Visiting Assistant Professor in the Department of Archaeology; in 1990-91 he will continue as Visiting Assistant Professor of Archaeology. He took all of his degrees (B.A. 1967, M.A. 1970, Ph.D. 1978) at the University of Oklahoma, where he has held an adjunct assistant professorship ever since. For seven years he was also Ethnohistorian with the Oklahoma Archaeological Survey, and most recently was Assistant Professor of Anthropology at Eastern New Mexico University in Portales.

Baugh's field work has been conducted in the western United States, reaching south and west from North Dakota to Nevada and including the Plains, Great Basin, and Southwest regions. His many projects have included field schools, remote sensing applications, and contract archaeological work, as well as ethnohistoric projects funded by the National Endowment for the Humanities. He is coeditor of a book currently in press entitled *Prehistoric Exchange Systems in North and Central America*.

Center Activities

News from the Center for Archaeological Studies

The Center for Archaeological Studies, in collaboration with the Department of Archaeology, sponsored a lively and varied lecture and colloquia series during the months of February, March, April, and May.

Julie Benyo, Research Fellow in the Center for Archaeological Studies, gave a lecture on "A Postclassic Renaissance in Central Honduras."

A member of the Center, Dr. J. Worth Estes, was featured during the winter in the "Science: Archaeology" section of the Washington Post. Dr. Estes, a Professor in the Department of Pharmacology and Experimental Therapeutics at the Boston University School of Medicine, is an expert in the history of medicine, especially in ancient Egypt, and has lectured frequently on that topic. He is the author of The Medical Skills of Ancient Egypt (Science History Publications, Canton, Massachusetts), which appeared in the fall of 1989.

Paul Goldberg, a Professor at Hebrew University in Jerusalem, and a visitor at Harvard University, spoke on "Microscopic Approaches to Archaeological Sites."

Norman Hammond, Professor and Acting Chairman, Department of Archaeology of Boston University, lectured on "The Latest Word from Cuello, Belize, Central America." (For more on Cuello, see his article, which begins on page 1 of this issue of *Context*).

Jerome Handler, Professor of Anthropology at Southern Illinois University and a visitor at DuBois Institute of Afro-American Research, Harvard University, lectured on "Slave Life in Barbados, West Indies: Archaeology, History, and Anthropology."

John Hedges, British archaeologist with the North of Scotland Archaeological Services, Ancient Monuments Branch of the Scottish Development Department, gave a lecture in March, 1990, on "A Tomb of the Eagles: a Window on Stone Age Tribal Britain."

Ian Hodder of the University of Cambridge, a prolific author on archaeological theory, held an informal discussion with the faculty and students of the Department of Archaeology.

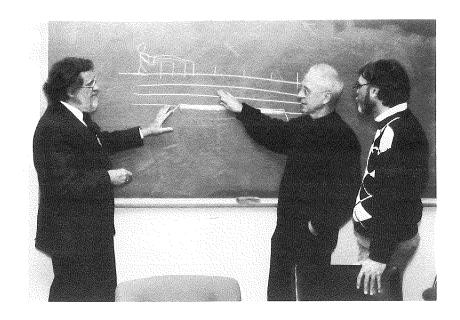
Dr. Mark Horton of the Pitt-Rivers Museum, Oxford University, gave two lectures for the Center and the Department in April. The titles of his talks were "Origins of Islam in Eastern Africa: The Archaeological Evidence," and "Fortress on the Nile: 3,000 Years at Qasr Ibrim, Nubia." Both lectures dealt with his new excavations at the important site of Qasr Ibrim in the Sudan, where the arid conditions have been responsible

Professor
Jerome
Handler
discusses an
African glass
bead found
with a burial
on Barbados
with Professor
Mary Beaudry.



More Activities... Geoarchaeology Was a Frequent Topic

The residency of Professor Rip Rapp, the visit of Professor John Weymouth, and the course in remote sensing by Professor Timothy Baugh combined for a special focus on geoarchaeology and geophysical prospecting during the spring 1990. In the photo to the right the three professors make use of a chalk sketch in a discussion of geophysical prospecting. In the photos below, on the left Professor Weymouth confers with graduate student Jim Raab-Rust, this year's W. M. Keck Foundation Research Assistant in Remote Sensing, and Lara Prihodko, a cum laude spring graduate. On the right Al B. Wesolowsky takes up the possibility of using ground-penetrating radar in Maya pyramids.







SPL Update: Finds beneath the Kitchen Floor And a Field School Reminder

In November and December, 1989, Professor Beaudry and Assistant Archaeologist Sara Mascia returned to the Spencer-Pierce-Little site (see *Context* 8:1–2 [1989] 1–3) to excavate beneath the floor of the kitchen ell in advance of restoration work in this room. Their work was funded through a grant to SPNEA from the Getty Conservation Trust. The crawlspace proved rich in artifacts, most of them deposited through rodent activity. They did, however, uncover a sealed feature of considerable depth. This was a filled-in stairwell—an entry into the cellar abandoned when the central chimney stack of the house was rebuilt ca. 1780–90 under the direction of Nathaniel Tracy, a prominent Newburyport merchant, who established a country estate at SPL and undertook extensive renovations to the house. The deposit was formed chiefly through disposal of architectural debris generated from remodeling the chimney and its fireplaces, but large quantities of kitchen refuse were tossed in along with bricks, mortar, stone, wood, plaster, and so forth. The refuse included a prodigious amount of animal bone as well as ceramics, half of a small grindstone, cutlery, wine bottle glass (Tracy was famous for his wine cellar), and thousands of charred seeds. Analysis of these materials will be completed this spring, along with additional historical research and geophysical prospecting within the homelot (see Tim Baugh's article, this issue of *Context*, page 7).

Information on the field school to be offered at the site June 18–July 27, 1990 may be obtained by writing or calling Professor Beaudry or Ms. Sara Mascia, Center for Archaeological Studies, Boston University, Boston, MA 02215; (617) 353-3415 or 353-3417. Center workshops run for one to two weeks, and there will be volunteer opportunities.

continued from page 15 for the preservation of great quantities of papyrus documents, as well as other kinds of highly perishable materials (e.g., textiles and wood), which the excavators have recovered.

Robert Preucel, newly appointed Assistant Professor of Anthropology at Harvard University, spoke on "Philosophy of Archaeology."

George (Rip) Rapp, Research Professor of Archaeology, spoke in February on his research in the Mediterranean area both for the Center and other groups. His Center talk in February was entitled "The New Excavations at Troy, 1989," and dealt with some of the early results of new investigations at this site of legendary importance on the Anatolian side of the Dardanelles. Professor Rapp directs the geoarchaeological research for the international team, under the sponsorship of the German Archaeological Institute. Rapp also addressed other groups during the spring term, including the Department of Classical Studies, to whom he spoke on "Geoarchaeology in the Classical World." During his spring residency, his first full semester at Boston University, he taught AR 102 Introduction to Sciences in Archaeology and introduced a new course, AR 102 Geoarchaeology. Professor Rapp, who is also a professor at the University of Minnesota, both in Duluth and in Minneapolis, will regularly teach one academic term out of four in the Archaeology Department at Boston University. He will next be in residence in the fall 1992.

John Shea, Lecturer in Anthropology at Boston University, and a candidate in the Ph.D. program at Harvard University, presented a lecture on "Stone Tools and the Origins of Modern Humans."

Al B. Wesolowsky, a Research Fellow of the Center and Managing Editor of the *Journal of Field* Archaeology, presented a lecture in December entitled "The Uxbridge Autopsy and the Archaeology of Anatomy." Wesolowsky is currently John Shea discusses the use of stone tools with Professor Curtis Runnels and Dr. Tom Killion, Center Coordinator.



Academic Degrees Awarded May 1990



Master of Arts

Lauren Cook

David Dutton

Bachelor of Arts

Juliet Cleaves

Anthony Dolan (Minor in French)

Harley Erickson (*Cum Laude*, Double Major in Archaeology and Classical Civilization)

Tamara Harper

Matthew Hill, Jr. (*Cum Laude*, Department Award for Distinction in Archaeology)

Matthew McDermott (Magna Cum Laude)

Lara Prihodko (Cum Laude)

Tamatha Sasser (Magna Cum Laude, College Prize for Excellence)

Mari Sunahara (Cum Laude)

Congratulations!

Two Faculty Members Awarded Tenure and Promotion in Archaeology

Mary C. Beaudry and Paul E. Zimansky have been notified that the Trustees of Boston University have awarded them tenure and promotion to the rank of associate professor in the Department of Archaeology, effective September 1, 1990.

Beaudry joined the Boston University faculty as an Assistant Professor of Archaeology and Anthropology in 1980, the same year she received her Ph.D. in Anthropology from Brown University. She had previously earned an M.A. (1975), also from Brown, and a B.A. (1973) from The College of William and Mary. In addition to bringing her expertise in North American historical archaeology to the Archaeological Studies Program, and to the Department of Archaeology after its creation in 1982, Beaudry has taught several of the undergraduate and graduate core courses in archaeology, and has been active in the American and New England Studies Program. She is the President of the Society for Historical Archaeology, one of the three largest and most prestigious archaeological organizations in North America.

writing his Ph.D. dissertation for Cambridge University on the cemeteries of the ancient site of Stobi, Yugoslavia.

John Weymouth, Professor Emeritus of Physics at the University of Nebraska and an internationally recognized expert and pioneer in the application of geophysical prospecting methods in archaeology, was a guest of the Center and Department for a week in February. He participated in Professor Baugh's class in "Remote Sensing in Archaeology" and gave a Center lecture on geophysical prospecting.

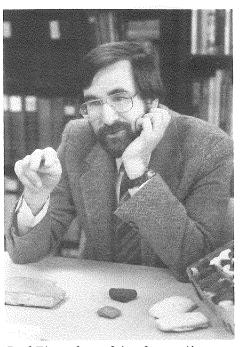
Alison Wylie, Professor of Philosophy at the University of Western Ontario, Canada, spoke on "Proliferation of the New Archaeologies: Objectivism and Relativism."

Professor Beaudry has published extensively on her excavations and other research in Virginia and in New England, and recently edited a volume entitled Documentary Archaeology in the New World (Cambridge University Press, 1988), to which she was also a contributor. Since 1986 she has been editor of the journal Northeast Historical Archaeology, and she serves on the editorial board of the Journal of Field Archaeology. Her recent field work includes archaeological investigations at the Boott Mill housing complex in Lowell (Context 5:1-2 [1986] 8-12) and at the Spencer-Pierce-Little House at Newburyport (see Context 8:1-2 [1989] 1–2), where she will direct a field school during the summer, 1990. She recently signed a contract with Telford Press to write a book on the archaeology of historical households.



Mary Beaudry discusses wine bottles found at the Spencer-Pierce-Little site.

Paul Zimansky, a specialist in Near Eastern archaeology, history, and languages, joined the Department in 1983, after teaching at the State University of New York, Stony Brook. He received his B.A. in 1968 from Johns Hopkins University and his Ph.D. in 1980 from the Oriental



Paul Zimansky explains the cuneiform clay tablets found at Mashkan-shapir.

Institute at the University of Chicago. In addition to creating and teaching a broad range of courses in Near Eastern archaeology, Zimansky has played a leading role in developing team-taught, advanced courses in comparative archaeology. He also regularly teaches some of the core undergraduate courses and for several years has been the Department's undergraduate advisor.

He edits Mari Shapri, a scholarly newsletter published by the American Schools of Oriental Research: is a member of the editorial board of the Journal of Field Archaeology; and often reviews for the American Jornal of Archaeology. His publications include Ecology and Empire: The Structure of the Urartian State (Oriental Institute Press, University of Chicago, 1985), as well as a number of articles. His field work has been primarily in the Near East, especially in Syria and Iraq. Zimansky is currently (spring term, 1990) at Tell Abu Duwari, Iraq, where he and his wife, Professor Elizabeth C. Stone of the State University of New York, Stony Brook, are Codirectors of the archaeological investigations of Mashkan-shapir, an important city of ancient Mesopotamia. Stone and Zimansky reported on their first season's work at Mashkan-shapir in Context 7:3-4 (1989) 1-4.

Profiles of the Past

Our Archaeological Heritage

△ by Ricardo Elia

ICOMOS and the Preservation of Archaeological Sites

The world's archaeological resources are disappearing at a frightening pace. Archaeological sites, monuments, and artifacts are being bulldozed in the name of development and plundered to provide art for collectors and museums and profit for investors. Excavated sites and monuments are constantly deteriorating through neglect, improper conservation methods, exposure to air pollution, and the forces of nature.

•In 1988, a chunk of stone fell off the Sphinx in Egypt, while precious tomb paintings are gradually disintegrating from the effects of salt and moisture build-up. In Athens, Greece, the last of the famous Caryatids—columns in the form of maidens—has now been removed from the Erechtheum on the Acropolis and replaced with a replica. Air pollution—chiefly from automobiles and nearby factories—has rendered the facial features of these remarkable statues virtually unrecognizable.

 From Guatemala to China, from Arizona to Thailand, the world's archaeological sites and museums are being plundered to supply the growing international art market. Italy alone reports the theft of over 244,000 art objects and antiquities since 1970. The stolen art ranges from frescoes and mosaics to statues. One case in point is the Italian government's claim that a sixthcentury B.C. marble statue of Aphrodite at the J. Paul Getty Museum in California was illicitly excavated and removed from a site in Sicily. The museum recently acquired the statue for perhaps as much as \$20 million.

 In the territorial waters of nations throughout the world, fragile underwater shipwrecks are being systematically mined by commercial salvage firms. Armed with state-ofthe-art remote sensing devices and financed by eager investors, these underwater salvors are frequently aided and abetted by misguided national and state laws. Ecuador, for example, has apparently just given an exclusive underwater (and terrestrial) concession to an organization specializing in the commercial recovery of historic shipwrecks, and in Massachusetts current law encourages salvors by awarding them seventy-five percent of the value of anything recovered.

 The pace of development and urbanization is increasing worldwide, resulting in obvious threats to archaeological resources. Yet most countries have inadequate antiquities legislation, and fewer still have both the financial resources and an established archaeological infrastructure that would allow them to systematically protect their cultural patrimony. Few can conduct archaeological surveys of even large development projects (highways, roads, dams, etc.) before construction begins. Too often, sites are discovered during construction and must be hastily, and incompletely, salvaged. The archaeology is reactive, rather than proactive—rescue archaeology rather than cultural resource management.

Considering both the scale and the seriousness of the problem, it is surprising that there is no single archaeological organization devoted principally to the preservation and management of archaeological sites on an international level. Most of the larger organizations, especially the

Archaeological Institute of America and the Society for American Archaeology, have in recent years devoted increasing attention to issues of archaeological heritage preservation and management, but none has maintained a worldwide focus on the preservation of archaeological resources.

Fortunately, there is an organization devoted to the preservation of the world's cultural heritage and one that offers perhaps the best hope of becoming the lead group to promote archaeological heritage management on an international level. This group is ICOMOS, the International Council on Monuments and Sites. Founded in 1964 with the support and encouragement of UNESCO, ICOMOS is an international nongovernmental organization consisting of an Executive Committee, a Secretariat (located in Paris), and a membership organized into national committees. At the present time there are 59 national committees, including the American committee, which calls itself US/ICOMOS.

ICOMOS describes its main purpose as "bringing together people and institutions actively concerned with the conservation of buildings, groups of buildings and larger units of architectural, archaeological and historical interest." To serve this purpose, ICOMOS encourages the exchange of ideas, expertise, and training in the fields of conservation and preservation. ICOMOS publishes a quarterly journal, ICOMOS Information, which contains articles and notices about international conservation and restoration projects. Every three years the membership meets in a General Assembly. The next meeting will be held in Lausanne, Switzerland, in October, 1990.

Since its establishment, ICOMOS has tended to concern itself primarily with above-ground monuments and architecture. In recent years, however, both the membership and orientation of ICOMOS have reflected the increasing sophistication of the preservation movement generally, which has been turning away from

the study of individual buildings and sites and moving in the direction of a more holistic approach to the preservation of our cultural heritage, involving not just individual monuments but groups of monuments together with their cultural, historical, and archaeological contexts.

This trend can be seen in the recent creation by ICOMOS of a series of Specialized International Committees dealing with specific issues and topics relating to preservation. There are at present committees on historic gardens and sites, vernacular architecture, mud brick (adobe), cultural tourism, inventories, photogrammetry, historic towns, stained glass, training, rock art, stone, wood, and, since 1985, archaeological heritage management. A number of the national committees, including US/ICOMOS, have established parallel committees. In 1989, US/ICOMOS established standing specialized committees in Historic Gardens and Sites (Nora Mitchell, chair): Historic Towns (Robert E. Stipe, chair); Earthen Architecture (Neville Agnew, chair); Training (James K. Huhta, chair); and Vernacular Architecture (Michael Koop, chair). At its annual meeting in January, 1990, US/ICOMOS constituted two additional committees, Archaeological Heritage Management (Ricardo J. Elia, chair) and Cultural Tourism (Sally Oldham, chair). The committees are charged with the following tasks: 1) preparation of a charter defining the purpose of the committee; and 2) development of a three-year work program for the committee.

One of the most important tasks of the new US/ICOMOS Archaeological Heritage Management Committee will be to coordinate activities with the international committee, ICAHM (International Committee on Archaeological Heritage Management), and to draft a committee charter taking into consideration ICAHM's draft Charter for the Protection and the Management of the Archaeological Heritage, which was written in response to the growing threats to archaeological resources in

the world today. This important document, first presented in draft form at the 1987 ICOMOS General Assembly in Washington, and revised in 1988 at a special Assembly in Stockholm, is intended to serve as a concise statement of general principles and guidelines for the preservation and and management of the world's archaeological heritage. It is anticipated that the charter will be presented for adoption and ratification by the 1990 General Assembly in Lausanne.

In general terms, the ICAHM Charter is an admirable statement of principles for the preservation of our archaeological heritage. The Charter calls for nations to make archaeological resources part of their overall land-planning process in order to ensure that development does not result in the destruction of archaeological sites. The adoption of adequate preservation legislation is seen as critical, both for ensuring that sites are protected and that adequate funding is provided for archaeological investigations. Scientific and professional standards are called for in the areas of archaeological survey, investigation, inventorying, conservation, and the presentation of archaeological data. The Charter also sees an urgent need to develop international mechanisms for promoting the exchange of information, ideas, and technology among those working in the field of archaeological heritage management.

The predominant philosophy of the ICAHM Charter is one of conservation and preservation. The document is, in fact, one of the clearest recent statements of the socalled "conservation ethic" in cultural resource management. Describing archaeological heritage as "a fragile and non-renewable cultural resource" (Article 2)—a phrase borrowed from American archaeological planners—the Charter stresses the importance of non-destructive techniques and in situ preservation. The 1987 draft, in fact, went so far as to state that, in essence, only threatened archaeological sites should be excavated.

As a principle excavation should only be carried out to preserve documentation of heritage, which will be destroyed because of development, land use, looting or natural deterioration or when it is absolutely necessary for scientific reasons. (Article 5)

This principle would doubtless appear to be too radical for many traditional archaeologists, who regularly investigate unthreatened sites strictly in the interests of research. The revised draft of the Charter, while still adhering to the principle of *in situ* preservation and non-destructive investigations, takes a more moderate position, although the excavation of unthreatened sites is only sanctioned "in exceptional cases."

Excavation should be carried out on sites and monuments threatened by development, land-use change, looting, or natural deterioration.

In exceptional cases, unthreatened sites may be excavated to elucidate research problems or to interpret them more effectively for the purpose of presenting them to the public. In such cases excavation must be preceded by thorough scientific evaluation of the significance of the site. (Article 5)

In sum, the ICAHM charter is an important statement of principles, and should provide a useful starting point for many nations, especially those that are struggling with the problems of an ever-dwindling archaeological heritage in the face of looting, development, and inadequate legislation, funding, and training.

The preservation of our archaeological heritage is the most important and urgent issue in archaeology today. As the preservation movement has grown more sophisticated in recent decades, its practitioners are realizing that ad hoc, piecemeal approaches to preservation and conservation are no longer adequate. True preservation means not just conserving the individual monument or building, whether intact, in ruins, excavated, or unexcavated. It also means the

CALENDAR

Summer, 1990

Workshop at Spencer-Pierce-Little Farm will be held during the summer, 1990 (see page 15 of this issue of *Context*).

October 22-26, 1990

Context and Human Society Lecture Series: **Alexander Marschack**, Research Fellow of Peabody Museum, Harvard University (see *Context* 8:1–2 [1989] 4). March18-22, 1991

Context and Human Society Lecture Series: **Martin Biddle**, Fellow of Christ Church, Oxford University (see *Context* 8:1–2 [1989] 4).

continued from page 19

landscape around that building, the preservation of the contextual archaeological site below that landscape, and the preservation of groups and clusters of buildings, monuments, and sites. It means not only conserving the artifacts that have been excavated from sites, but also the conservation and protection of artifacts that remain in situ. In short, we need a new, integrated, and systematic approach to the preservation and conservation of our cultural patrimony—not just a collection of individual specialists working on this or that type of artifact or monument, but a unified approach to overall site preservation, encompassing every aspect of preservation, protection, and

conservation. ICOMOS, with its international membership of architects, preservationists, museum specialists, government agency planners, and, increasingly, archaeologists, has an important role to play in this effort.

For information on becoming a member of US/ICOMOS, contact Terry B. Morton, President, US/ICOMOS, 1600 H Street, N.W., Washington, D.C. 20006, (202) 842-1866.

Ricardo J. Elia is Director of the Office of Public Archaeology at Boston University and Chairman of the US/ICOMOS Archaeological Heritage Management Committee. Profiles of the Past will appear in each issue of Context as a regular feature.

Boston University Center for Archaeological Studies 675 Commonwealth Avenue Boston, MA 02215

Address Correction Requested

Nonprofit Organization U.S. Postage PAID Boston University

was founded at Boston University in 1980, has as its chief aim the development and coordination of interdisciplinary archaeological programs in education and research on local, national, and international levels. The Center also seeks to increase national and international awareness of the importance of understanding other cultures, and of preserving the world's cultural heritage, by involving professional archaeologists, scholars in other fields, and the general public in the activities of the Center.

Context is the newsletter of the Center for

The Center for Archaeological Studies, which

Archaeological Studies and is published quarterly. Institutions and individuals may subscribe separately to Context at a cost of \$10 per year. Membership in the Center is open to the public; annual dues are \$20 (\$10 for students); benefits include a subscription to Context, invitations to attend fall and spring lecture series and other events, and the use of the Center's library facilities. The Center also offers special seminars for the public during the academic year and summer field schools here in the Boston area and abroad. Other categories of membership are: Contributing Member, \$50; Institutional, \$50; Patron, \$100; Benefactor, \$500; and Corporate, \$1000. Please make checks payable to the Center for Archaeological Studies and send to the Center office at Boston University, 675 Commonwealth Avenue, Boston, MA 02215. Gifts to the Center are taxdeductible.

Editorial Board: James R. Wiseman, Editor-in-Chief; Ricardo J. Elia, Creighton Gabel, Norman Hammond, Fred S. Kleiner. Lucy Wiseman, Managing Editor.

Faculty and Research Appointments in the Department of Archaeology (1989-90): Professors Creighton Gabel, Norman Hammond, Fred S. Kleiner, James R. Wiseman. Associate Professor David Kennedy. Assistant Professors Kathryn A. Bard, Mary C. Beaudry, Julie Hansen, Patricia A. McAnany, Curtis N. Runnels, Paul E. Zimansky. Research Professors George (Rip) Rapp, J. Wilson Myers. Distinguished Research Fellow Gordon Willey. Adjunct Associate Professors Clemency C. Coggins, Ricardo J. Elia. Visiting Assistant Professor and William M. Keck Research Fellow in Remote Sensing Timothy Baugh. Visiting Lecturer Helen Sorayya Carr. Research Associate Gerald Kelso. Research Fellows William K. Barnett, Julie Benyo, Caroline J. Hemans, Thomas W. Killion, Georgeana Little, Eleanor Emlen Myers, Tjeerd H. Van Andel, Elizabeth C. Stone, Al B. Wesolowsky, Ann Yentsch.

Copyright 1990, Boston University Center for Archaeological Studies

