As I think about this topic, I am writing from the northeast corner of Vermont, right on the Quebec border, where I have come for 40 years—a cabin on a large, quiet lake surrounded by dense woods and moose. Looking out the cabin windows and down the lake to the mountains in the distance I cannot help but wonder, really a reverie, about the Native Americans who in times past wandered, hunted and built lives in these mountains; Or about the French coming down from Quebec; Or the English and later the Americans coming up from the south. What were their lives like, their dreams and their accomplishments as they built lives in the wilderness? But I also wonder about others.

Sitting in a pile are this past year’s issues of Archaeology Magazine reporting on the discovery of the lives of other peoples across the globe. I like to re-read about these explorations. These peoples are part of our common humanity to whose exploration the Archaeological Institute dedicates itself. The rich diversity of past cultures reveals insights into our common humanity. The AIA-New York Society is committed to bringing you, its members and supporters, the excitement of archaeological discovery.

This year’s lecture program presents exciting new explorations of past societies. In September Dr. Andrew Moore starts our program by showing how archaeology can help us understand how climate change affected ancient societies. This topic is part of the NYS’s attempt to illuminate the challenges we face by reflecting on similar challenges faced by ancient peoples. At the beginning of October the foremost Egyptologist working on the Giza Plateau, Dr. Mark Lehner, will reveal his team’s uncovering of the Lost Port City of the Giza Plateau, the major port of the Egyptian Old Kingdom for the building of the Great Pyramids. In late October Dr. Jason Ur will discuss the declassification of US intelligence satellite imagery that is opening new roads for Near Eastern archaeology. Whether roaming the continents to understand climate change or delving deep into the Nile Valley or the landscape of the Near East, archaeologists are also travelers and in November Dr. Richard Hodges will give us the benefit of his decades of wanderings in his lecture, “Travels with an Archaeologist: Finding a Sense of Place.” Please see all the details of this exciting Fall 2017 lineup below, and please attend.

Please note that before Dr. Moore’s lecture on September 18 the NY Society, your society, will hold a brief annual meeting, to which you are invited. Your membership supports the work of the AIA National and especially the NY Society, the largest of the more than 100 AIA local societies. Thank you for your membership and please spread the word to your friends to become members and to enjoy the discovery.

In this Newsletter you will also find several interesting articles. Dr. Joseph Schuldenrein explains about LiDAR, one application among many of the latest scientific tools to archaeological discovery. Ms. Heidi James’ article reports on a conference focused on the looting of a huge multi-toned sarcophagus and its repatriation to Turkey. Your society is proud to support a student to attend their first-ever, archaeological fieldwork experience. You will find a short article from this year’s scholarship winner about his experience in Italy.

Welcome to a new year of exciting archaeological discovery!

*Jeffrey Lamia*
President, AIA New York Society
**AIA New York Society Fall 2017 Lecture Series**

**Archaeology, Climate Change and Human Society, or How the Past Can Help Us Understand the Present**

**Dr. Andrew Moore**  
Past-President, Archaeological Institute of America

Human physical and cultural evolution have taken place through an epoch of constant environmental change. Environmental factors have, therefore, strongly influenced the development of human society. I will review the cycles of long and short-term climate change that have provided the context for the emergence of humanity. I will then focus on the inception of farming as the seminal event in the development of our modern way of life. I will describe my excavations at the early village of Abu Hureyra in Syria that document the adoption of farming by a community of hunter-gatherers. The catalyst for the inception of farming there was a significant episode of climate change. Current research demonstrates that the subsequent rise and fall of major civilizations across the Middle East and elsewhere in the world was strongly influenced by cycles of climate change. I will argue that climate change has conditioned the world we know, and that archaeology has much to tell us about how human societies have adapted to large-scale environmental disruption across the millennia. Global warming presents societies in the present day with existential challenges that lessons from the past can help us address.

*(Co-sponsored by the M.A. Program in Liberal Studies)*

📅 September 18 at 6:30 pm (Annual Meeting to precede lecture at 6:00; reception to follow)  
📍 CUNY Graduate Center, 365 Fifth Avenue, Starlight Room

**New Discoveries from the Giza Plateau: The Lost Port City of the Pyramids**

**Dr. Mark Lehner**  
Director and President, Ancient Egypt Research Associates

Ancient Egypt Research Associates (AERA) explore the deepest layers of the Lost Port City of the Pyramids for evidence of Khufu, builder of the Great Pyramid of Giza. New archaeological evidence allows us to visualize waterways and harbors flanking the Lost City, the Sphinx, and the Pyramids. The Journal of Merer, part of Egypt's oldest inscribed papyri, opens a window onto daily use of the Giza waterways, and possible overnights, dockside, at the Lost City. Pierre Tallet and a French team found the papyri at a port of Khufu at Wadi el-Jarf on the Red Sea coast.

*(Haupt National Lecture)*

📅 October 3 at 6:30 pm (Refreshments to precede lecture at 6:00)  
📍 Explorers Club, 46 East 70th Street

✉️ RSVP is required to attend Dr. Lehner’s lecture. Details of the RSVP are posted on our website (http://aia-nysociety.org/events) and have been sent via email to AIA-New York Society members.
Spying on Antiquity: Declassified US Intelligence Satellite Imagery and Near Eastern Archaeology

Dr. Jason Ur
Professor of Anthropology and Director of the Center for Geographic Analysis, Harvard University

In 1995, President Clinton declassified 800,000 photographs from CORONA, the United States’ first spy satellite program, in order to make them available for environmental and historical research. Since then, imagery from the U2 aerial missions and from HEXAGON, the CORONA successor, have been declassified as well. Archaeologists working in the Near East have been quick to embrace these newly available resources, which capture images of sites and landscapes in the 1960’s. Many of these landscapes have been damaged or destroyed in the intervening 40 years. This presentation will discuss how CORONA imagery has been used to study ancient landscapes in the Near East, with case studies from Bronze Age Syria, Iron Age northern Iraq, and late Antique northwestern Iran.

(Co-sponsored by the Institute for the Study of the Ancient World)

October 23 at 6:00 pm (Reception to follow)
Institute for the Study of the Ancient World, 15 East 84th Street

Travels with an Archaeologist: Finding a Sense of Place

Dr. Richard Hodges
President, American University of Rome

Dr. Hodges will share his observations about his over 40 years experience of archaeological fieldwork, creating archaeological parks, and international travel. Dr. Hodges has worked and traveled throughout the world. He has assembled teams of professional archaeologists, negotiated the intricacies of governmental permits, considerately worked with foreign colleagues and local citizens and effectively marshaled financial resources for his fieldwork and especially for heritage conservation. He will share his experiences and observations in this presentation.

(Co-sponsored by The Cooper Union)

November 15 at 6:30 pm (Refreshments to precede lecture at 6:00)
The Cooper Union, 41 Cooper Square, Room 101

As always, please be sure to consult our website (http://aia-nysociety.org/events) for any last-minute changes in venue.
Illicitly imported cultural objects from the Middle East have recently captured the world’s attention, in no small measure due to the destruction and decimation of culture in Syria and Iraq. However, clandestine excavations and illegal imports have long been a problem, predating the Syrian civil war. A favorable development of significance on this front is a recently settled lawsuit in Geneva, Switzerland that resulted in the restitution of a Roman 2nd Century sarcophagus that is scheduled for return to ancient Dokimeion, or present day Antalya, Turkey, in the fall of 2017.

In June 2017, while attending a program at the Université de Genève on cultural heritage law, I was able to view the sarcophagus at a reception celebrating its restitution to Turkey. H.E. Professor Nabi Avci, the Minister of Culture of Turkey, and Irina Bokova, the Director-General of UNESCO, were present at the reception.

The sarcophagus is believed to have been removed from the Perge Necropolis in Turkey sometime between 1991 and 2000, and presumably was illegally exported from Turkey and made its way to a warehouse within the Ports Francs of Geneva, where it remained hidden for at least ten years. The lawsuit required seven years of proceedings that were triggered initially by a customs check in 2010. The warehouse in question is reported to have belonged to a member of the Aboutaam family, which is associated with the Phoenix Ancient Art Gallery. The Phoenix Ancient Art Gallery was allegedly at one time trying to sell the sarcophagus. U.S. Immigration and Customs Enforcement (ICE) has investigated members of the Aboutaam family and the Gallery in a matter involving an ancient stele that originated in Yemen and was also returned.

The settlement of the lawsuit and restitution of the sarcophagus was the result of international diplomacy and collaboration among a number of parties. Laws and conventions that are specifically designed to protect cultural heritage from looting and destruction likely influenced, but did not directly control, the resolution of the matter. For example, the 1995 UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects is specifically directed at stolen or illegally exported cultural objects but at present has been ratified by only forty member states that are primarily source countries, and are not transit or market countries to which illegally obtained objects often are exported. The United States is one of the sixty-three member states of UNIDROIT, but it has not yet ratified the 1995 Convention.

While the return of the sarcophagus is noteworthy in diplomatic circles, the identification and prosecution of individuals responsible for the theft and removal of cultural objects remains elusive, and no criminal charges were filed in this case.

Dr. Lorenz Baumer of Geneva and Professor Emeritus Dr. Marc Waeldens of Belgium will present historical and archaeological results of the sarcophagus in Geneva on September 4, 2017.

- Heidi James-Fisher
Studio LXIV, Ltd.
Waldbaum Scholarship Report:

Field School at Hadrian’s Villa,
Summer 2017

With the support of the Archaeological Institute of America—New York Society’s Jane C. Waldbaum Scholarship, I spent the month of June at the excavations at Hadrian’s Villa. The Villa is a vast complex, built in the first decades of the 2nd century CE near the modern city of Tivoli (known as Tibur in antiquity). The imperial household owned many such country estates but almost every new emperor constructed a new villa in implicit competition with his predecessors. This villa is particularly noteworthy for the novelty of its architectural ideas, attributed by some scholars, at least in part, to Hadrian’s own amateur enthusiasm for architecture.

Gradually, as I became more familiar with the space, I started to get a sense of how it might be understood. Instead of reading the space only in the sense of “meaning” something, I started to think of it in terms of two functions: buildings are both used and seen as a visitor passes through the Villa. The entranceway leading to the Vestibule, for example, runs along a massive, multi-story structure, built into the wall of the ground elevation. The repetitive modularity of the space, the lack of the spectacular decoration which characterizes other areas of the Villa, and the density of the living arrangements (not to mention the latrines, some of which seat up to seventeen) all suggest that the building was a residential area for lower-class occupants, probably slaves. Its location along the entrance path indicates that it was also meant to impress visitors with the magnitude of the man-power controlled by the emperor.

This was the sort of historical analysis we practiced in the class portion of the program. There was also a strong focus on archaeological method: I learned firsthand the principles of archaeological stratigraphy. The excavations were systematic, peeling back layers of soil across their full extent rather than digging circumscribed ditches and disturbing the stratigraphy. By removing the layers in reverse order from their accumulation, we were able to date them based on pottery and coins contained within the strata. This generated the most complete picture possible of the history of the site, not only in its Classical Hadrianic phase but throughout its long subsequent existence in the Late Antique and Medieval periods. Different time periods, formerly somewhat abstract, now became concrete as we saw them emerge through deeper and deeper layers of soil.

Aside from learning a great deal, I had a wonderful time in Italy. We stayed in a lovely hotel near the Villa. A nearby bus route also made it possible for us to travel to Rome every weekend. Spending time
at the Capitoline Museum and amongst the ruins on the Palatine Hill provided further context for the art and architecture of the Roman Empire. Particularly relevant to our program was a trip to the Vatican Museum, which houses several sculptures originally discovered at the Villa. Most notable among these were several statues depicting Hadrian’s lover Antinous, who died tragically young, as the Egyptian god Osiris. In all the time I spent traveling around Rome, the physicality of the ancient city persisted visibly alongside the medieval and modern city. Being in Rome brought a clearer image, a more visceral sense of reality to the texts I had always studied before. The same was true of the countryside: I began to use the tree under which we ate lunch when visualizing the shady tree described in Vergil’s First Eclogue, a place of respite in an often turbulent world.

My entire experience was unforgettable. I learned a great deal about archaeological and art historical method, and about Roman history. I met wonderful people and spent four weeks enjoying the natural beauty and cultural resources of Italy, not to mention the outstanding and plentiful food. I am enthused to participate in future archaeological expeditions and am grateful to the AIA-New York Society for their support in my first entry into the field.

- Nathan Katkin
Classics Major, Columbia University

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#ArchaeoTech

LiDAR and the Revolution in Archaeological Remote Sensing

In the panoply of advances in Remote Sensing Technologies, the method currently garnering the widest application is LiDAR, an acronym for “Light Detection and Ranging.” It is a remote sensing and mapping technique built on the physics of light pulsation to measure ranges, or variable distances, to the earth surface. It is functionally an airborne technique that generates 3-dimensional information about the earth, its surface cover and subsurface characteristics.

Technologically, LiDAR instrumentation is uniquely simple in design. The system integrates a laser, scanners and Global Positioning Systems (GPS). The latter functions as the receiver for the data generated by the first two. The most common applications of LiDAR are for terrestrial and sub-aquatic measurements of variable swaths of the landscape.

For archaeology the method, in its most sophisticated form, is a quantum leap in archaeological site recordation for classic field surface surveys as well as for underwater archaeology. The precision of the method allows for contemporary archaeologists to streamline research designs based on the scale of the mapping and material cultural applications dictated for a project. Thus, for example, the emergence of complex societies, or cities, is documented by sets of consistent structural remains registered spatially or stratigraphically within a particular urban footprint. For earlier sites, patterned configurations of settlements along the changing margins of a lake basin, can not only inform on the linkage between settlement placements to a central water resource, but also has farther reaching implications on climate change and cultural adaptations.

Globally, LiDAR has revolutionized our perspectives on the emergence of complex societies. It utilizes landscape modification over time to assess the “cultural imprint” on the physical environment. For example, in the Maya heartland epicenter of Caracol (Belize), earlier 20th century remote sensing technologies (i.e., satellite and LANDSAT imagery) were collectively successful in piecing together complex architectural urban structures that provided insights into the fabric of early urban life-ways. The mapping methods producing these interpretations were synthesized over the course of 25 years. A recent application of LiDAR technologies, directed by a University of Central Florida team, focused on mapping extensive landscape modifications. LiDAR mapping revealed detailed configurations previously hidden beneath the trop-
Archaeological Institute of America

September 2017

Archaeological vegetation of the local landscape footprint. New maps identified and linked up settlement loci, ancient roadways, and agricultural terrace networks into a composite settlement system. This latter effort was the product of less than a month of work centered on a several day flyover and three weeks of post-field data processing.

Most recently, LiDAR’s applications have extended into the domains of cultural monument preservation, heritage management and cultural resource planning. The method is naturally paired with critical questions of defining site boundaries, depths, and structural integrity and maintenance planning. A classic empirical application was undertaken by my firm, GRA, at Burlington Island, New Jersey. The objective here was to map the depths and extent of a buried late 19th century surface with potential for preserving historic archaeological remains. The historic surface is semi-continuously mantled by sub-recent dredge fills. A two-pronged approach was applied to research the problem: (1) subsurface coring to detect the stratigraphic boundary of the fills and the surface; (2) LiDAR mapping of present landscape features and topography to resolve subtle vertical and horizontal margins of the underlying surface with considerable precision. Figure 1 illustrates the detail of the LiDAR based mapping effort, which serves as a baseline for reconstructing the supplementary core-based stratigraphy. It was possible to trace the historic modifications to the 19th century landscape with high resolution. On this basis, planning decisions for land reclamation were generated by state planners. The effect was to avoid negative impacts to potential historic properties.

LiDAR based mapping and remote sensing efforts will soon become de rigueur in archaeological research, ancient landscape reconstruction, and preservation planning. As new technical modules are becoming increasingly more cost-efficient, this method will initially complement, and potentially displace, more labor-intensive archaeological mitigation and survey strategies.

Joseph Schudlenrein
Geoarcheology Research Associates (GRA)

Figure 1. Light Detection and Ranging (LiDAR) elevation map (in meters above NAVD88), showing distribution of sub-recent dredge spoil cells (CDF cells A and B) and final boring locations (1-10) on Burlington Island, New Jersey. LiDAR based core placements allowed for procurement of optimal subsurface data to reconstruct the 19th century historic landscape.

SOMETHING FISHY IN TUNISIA

With hundreds of miles of Mediterranean coastline, North Africa has long been the site of fishing, fish farming, and many other marine activities. Against this backdrop comes news of an exciting find of the submerged city, Neapolis, off the northeastern coast of Tunisia, made by a joint underwater team from the National Heritage Institute of Tunisia and the University of Sassari, in Italy.
Among the finds at Neapolis were more than 100 tanks for salting fish and making garum, the celebrated fish sauce that was a key ingredient in Roman cookery.

Contrary to popular opinion, garum was not a sauce of rotten fish made to mask even more rotten meat and other perishables. Rather, it was the fermented liquid by-product of salted fish, similar to Vietnamese fish sauce. It could be made from various types of fish, from tuna, mackerel, and mullet to sardines and anchovies. Given this variety, garum could not have been made according to a single recipe; indeed, it seems likely that the most successful producers added their own secret ingredients.

In antiquity the Mediterranean coastline was littered with factories similar to the one at Neapolis, but this discovery provides further evidence of how the Romans exploited marine resources. From fish farming to fish salting, and from garum making to purple-dye extraction from murex shells, the Romans practiced aquaculture on an industrial scale.

The New York Society’s own John Yarmick has excavated a small “mom and pop” outfit making garum in Pompeii that may have been put out of business by cheap imports from ancient Baetica in what is now eastern Spain. The discarded potsherds that form the Testaccio mountain in Rome—many with oil and fish residues—are largely from Baetica, confirming massive Spanish food imports into Italy in the imperial period.

Together, archaeological artifacts like garum vats and pottery underscore the important point that in a pre-industrial society like ancient Rome, almost all of the economic output was related to food production.

- Elizabeth Bartman
Co-principal,
Elifant Archaeo-Culinary Tours

Mosaic depicting a jar for liquamen (a type of fish sauce) in the home of Umbricius Scaurus, a Pompeian producer.