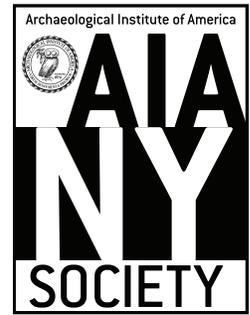


AIA

NEW YORK SOCIETY NEWS



THE PRESIDENT'S LETTER

Ring in an Exciting New Year!

Greetings for a Happy New Year! This is my first letter as President of the AIA-NY Society to which I was elected at the Annual Meeting on September 29. It is an honor to serve the NY Society.

Our society, mirroring the AIA nationally, includes both archaeological professionals and lay members. All are welcome and each enriches the other. I am a lay member, although I have participated in archaeological fieldwork. A business career in international banking permitted me on weekends to crawl around ancient ruins worldwide rekindling youthful interest in the human past and archaeology. *Archaeology Magazine* and other studies of the ancient past became constant companions. The archaeological record clearly documents the existence of huge, sophisticated, complex societies such as those in the ancient Near East, the ancient Indus Valley, ancient Egypt and ancient Mayan culture, but how were their societies and more particularly their economies organized? These questions informed my earned Ph.D. and still continue to interest me. In this regard the NY Society's lectures present the latest thinking and discoveries on a wide variety of topics.

This is an exciting time for archaeological investigation. Traditional and especially new technologies are adding many new discoveries about the human past. Fieldwork remains crucial but is now supplemented with discoveries in the laboratory and the use of digital capabilities. In this issue of the Newsletter Dr. Joseph Schuldenrein, a NY Society Board member, begins a series of explanations about new ways of achieving archaeological insight.

Insight from scientific practice is adding new aspects to current topical debates. On February 7 Dr. Peter de Menocal of the Lamont-Doherty Earth Sciences Institute will explain how the ancient climate of North Africa changed from lush to desert, leading ancient peoples to migrate into the Nile River valley. Climate change is affecting everyone around the globe and in this regard there are always two questions: (1) What climate change does to humanity and; (2) How humanity responds to that change. The latter is the human dimension of cultural choices we make in our localities, our nation and as an international community. Here the archaeological record can help us understand past responses in order to give us insights as to how we might respond in the future. Please attend Dr. de Menocal's lecture and stay tuned for more such examinations in future lectures.

Archaeological discovery happens not only outside the US but also right here in our own backyard. Since its earliest days New York City has seen continuous development and redevelopment. What mystery then lies in the soil? See Dr. Bergoffen's story about fascinating and unexpected discoveries of old New York.

The AIA-NY Society, *your society*, is a vibrant home for everyone interested in the human past. Please join your fellow members at forthcoming lectures – you never know where it will lead. Make new friends. Everyone's talents are valuable to the NY Society so please introduce yourself at a lecture or email us if you wish to volunteer. Don't forget to check the NY Society's website for the lectures as

there are occasional changes to venue and time. Also please note in this Newsletter information about our special group, The Friends of the New York Society.

Again, greetings for a new year of exciting archaeological discovery!

- *Jeffrey Lamia*
President, AIA-New York Society



AIA-NEW YORK SOCIETY LECTURE SERIES FOR SPRING 2017

February 7, 6:30 (Refreshments to precede lecture at 6:00)

How human history has been shaped by climate – the link between African climate change and human culture

Peter B. de Menocal, Professor, Department of Earth and Environmental Sciences, Earth Institute, Columbia University

Goldman Library, The Dalton School, 108 East 89th Street (between Park Ave. and Lexington Ave.)

Between 10,000–5,000 years ago, the vast Sahara desert was lush, green, well-watered landscape that supported abundant wildlife and widespread human hunter-gatherer populations. Drying of North Africa after 5000 years ago led to a climate-driven human migration from the interior to the Nile River basin where urban, stratified, proto-Pharaonic cultures emerged.

March 20, 6:30 (Lecture at 6:30 pm in the Skylight Room. Reception to follow in Room 4108)

HAUPT LECTURE: Richard III, The King Under the Car Park: the story of the search for the burial place of England's last Plantagenet king

Richard Buckley, Co-Director of University of Leicester Archaeological Services

(Co-sponsored by the MA in Liberal Studies and the PhD Certificate Program in Medieval Studies)

CUNY Graduate Center, 365 Fifth Avenue (at 34th Street)

In August and September 2012, a team of archaeologists from the University of Leicester set out to search for the final resting place of Richard III in a car park in central Leicester. Against all odds, the project proved to be successful in locating a potential candidate to be the king, and his identity was subsequently confirmed beyond reasonable doubt after an extensive programme of scientific analysis, including a DNA match with modern-day relatives, generating press interest from all around the globe.

April 26, 6:30 (Refreshments to precede lecture at 6:00)

BRUSH LECTURE: The End of Teotihuacan: Perspectives on Urban Life, Collapse, and Regeneration from beyond the Ancient Metropolis

Sarah Clayton, Assistant Professor, Department of Anthropology, University of Wisconsin

(Supported by Ms. Caroline Howard Hyman)

Goldman Library, The Dalton School, 108 East 89th Street (between Park Ave. and Lexington Ave.)

The first millennium CE witnessed the growth and decline of Teotihuacan, one of North America's earliest major cities and the capital of an unprecedentedly powerful state with far-reaching political influence. Teotihuacan flourished for several centuries before collapsing, by the CE 600s, for reasons that remain enigmatic. Although its monumental center has benefited from more than a century of archaeological research, investi-

gations of daily life and social change in surrounding communities are rare by comparison. In this talk I discuss the archaeological reconstruction of household and community organization in the Basin of Mexico, beyond the margins of the capital city. I consider the process of urban decay and the ultimate political collapse of Teotihuacan from the vantage of its rural settlements, emphasizing the results of recent fieldwork at the site of Chicoloapan, 40km south of the capital. Chicoloapan evidently prospered in the generations following Teotihuacan's collapse; its population was augmented by the arrival of immigrants from other areas, perhaps including refugees from the capital. Archaeological research at Chicoloapan significantly advances our understanding of both the timing and nature of Teotihuacan's decline and the impact of these changes on members of its regional population.

May 4, 6:00 (Reception to follow lecture)

Hidden in Plain Sight: Three Attic Vases from the Century Association in New York

Jennifer Udell, Curator, Fordham Museum of Greek, Etruscan and Roman Art

(Co-sponsored by the Institute for Study of the Ancient World and supported by a generous donation from Caroline and Edward Hyman)

Institute for Study of the Ancient World, 15 East 84th St.

At the end of the 19th century Thomas B. Clarke donated four ancient Greek vases to the venerable Century Association, a private club founded by members of the Hudson River School. This talk serves as a public debut for three of the vases—one black-figure and two red-figure—which have been all but lost to the scholarly and academic community since they entered the club's collection in 1891. I address briefly the phenomenon of private New York social clubs and their impressive art collections before turning to the iconography and the style of the vases themselves.



AIA-NEW YORK SOCIETY ARCHAEOLOGICAL FIELDWORK SCHOLARSHIP FOR NEW YORK CITY STUDENTS

The New York Society is pleased to announce its 2017 Archaeological Fieldwork Scholarship, the second time for this opportunity. The scholarship is \$1,000 to cover some of the costs for a student, matriculating at an accredited college or university within the five boroughs of New York City, to participate in an archaeological fieldwork school. Students majoring in archaeology or related disciplines are especially encouraged to apply. The scholarship is for junior and senior undergraduates and first-year graduate students only. Applicants must be at least 18 years old and must not have previously participated in archaeological fieldwork of any kind.

The scholarship committee considers both academic achievement and financial need in its deliberations. The scholarship is open to students from all backgrounds.

The NY Society Field Work Scholarship follows the guidelines and requirements of the AIA national's Waldbaum Scholarship except that eligibility is only for students matriculated at NY City accredited colleges and universities. The Jane C. Waldbaum Archaeological Field Work Scholarship was established several years ago to honor Past President Jane C. Waldbaum.

For more information, requirements and forms, please consult the national AIA's website (www.archaeological.org) and select "Field School Scholarships" under the "Fieldwork" menu.

FRIENDS OF THE NEW YORK SOCIETY

The Friends of the New York Society is a group of professionals and lay archaeological enthusiasts who support all the work of the NY Society. For their crucial support the Friends benefit with special private programs at which they can mix with professionals and those of similar interests. The Friends enjoyed two private tours so far this year: (1) Of the newly reinstalled Egyptian Galleries at the Brooklyn Museum of Art with Curator Edward Bleiberg and; (2) Of the Metropolitan Museum of Art's exhibit *Jerusalem, 1000-1400, Every People Under Heaven*, with Professor Jennifer Ball, CUNY Graduate Center and Brooklyn College.

Forthcoming Friends events are:

February 8th for a tour of the Institute for the Study of the Ancient World's exhibit, *Time and Cosmos in Greco-Roman Antiquity*, led by the Interim Director, Alexander Jones.

May 17th at the home of Elizabeth Macaulay-Lewis for a talk, *Fruits of the Silk Road*, by Robert Spengler, Visiting Research Scholar at the Institute for the Study of the Ancient World and Research Associate in the Anthropology Department at Washington University in St. Louis.

For inquiries to join the Friends please email Elizabeth Macaulay-Lewis (emacaulay_lewis@gc.cuny.edu).

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Archaeo-Tech:

Geographic Information Systems (GIS)

As most of the readers of this Newsletter are aware, the surge of technology and attendant information systems has transformed the very underpinnings of contemporary archaeology in the 21st century. Perhaps no single advance has played a more critical role in reconfiguring the archaeologi-

cal landscape than the adoption of Geographic Information Systems (GIS). The term itself refers to computer software that groups the complex spatial relationships of variables that collectively form the archaeological record. Purely archaeological variables can include artifacts, structures, and specific activity areas. In nearly all cases geographic or landscape variables are also considered since ar-

chaecology tracks patterns of change across space and time. By ferreting out sets of changes in the archaeological and landscape records, “big picture” transformations of the human condition can be registered with the use of the mapping technology of GIS.

Functionally, GIS has been defined as a tool for encoding, managing, and displaying structured spatial information. It is intimately tied to the explosive growth of information systems and organized database management systems. GIS for archaeology is an outgrowth of technical developments from the field of geography that, not surprisingly, covers both cultural and environmental components and their linkages. GIS is a system for spatial referencing and what used to be called (in archaeology) the “mapping on” or layering of archaeological data sets across space (i.e., distributions of stone tools at hunter-gatherer sites; buildings at Bronze age sites) to infer patterned behavior across specific landscapes (i.e., glacial settings in the former; 5000 year old Mediterranean villages in the latter). This spatial “mapping on” is both horizontal and, in the case of multicomponent or stratified archaeological

sites, vertical. GIS essentially makes sense of changes in landuse across time and space in the age of exploding data sets and concomitantly sophisticated methods of analysis.

Technical organization of GIS modules are complex and are streamlined to a particular archaeological site, set of sites, or any other spatial or temporal issues that are of concern to the researchers. However, all modules have four principal components: (1) data input systems (visual records such as photos or maps and textual or metrical data sets); (2) data storage and retrieval systems built around computer databases; (3) processing systems for data manipulation and analysis, often organized around statistical processing and reconfigurations of visual image sets; and (4) reporting systems that allow for output of data manipulation that results in interpretations of the processed data, typically in the form of maps.

The interpretive range of GIS based archaeological analysis exceeds what its designers originally envisioned because of the expansive range of information technology, the wealth of available data, and

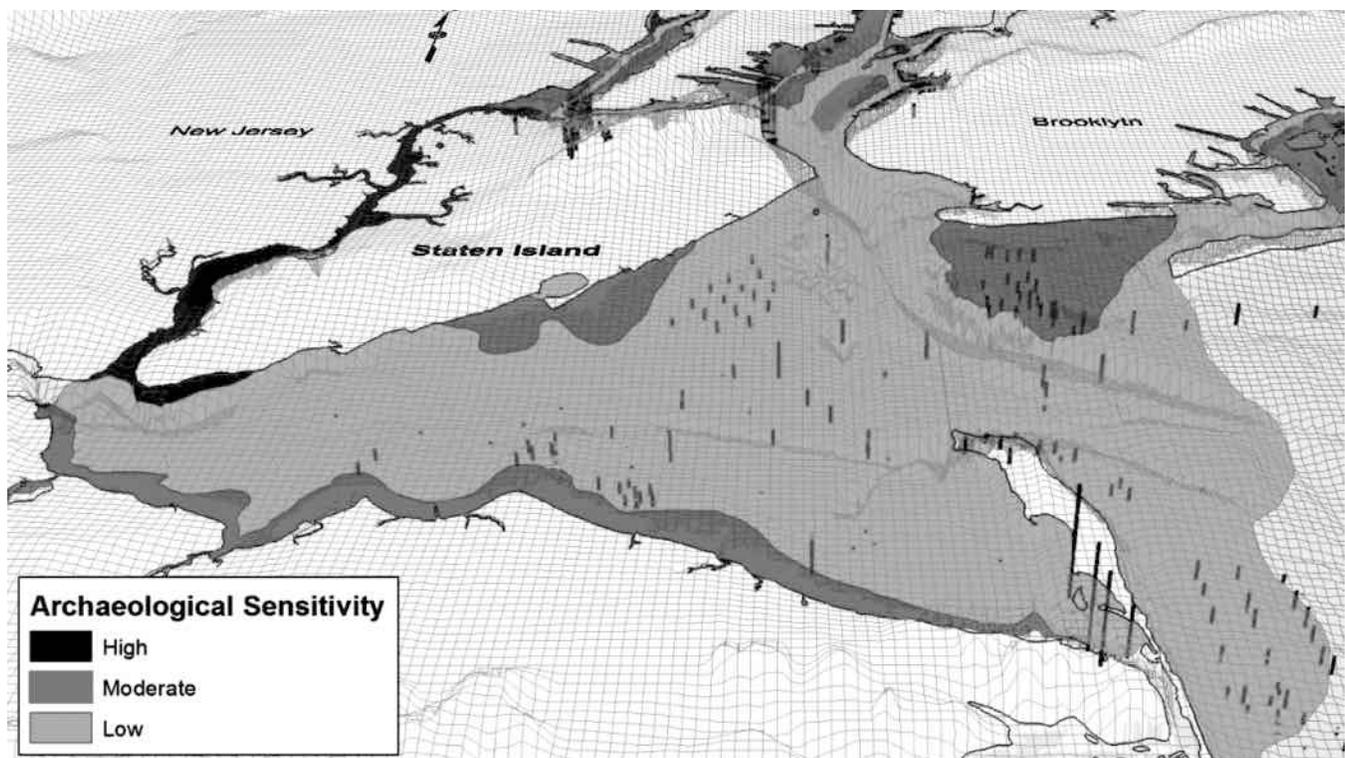


Figure 1: Digital Elevation Model of New York Harbor showing zones of archaeological sensitivity.

the resulting creation of increasingly complex databases based on progressively more sophisticated analyses. GIS may be said to be an inductive interpretive tool whose reach is limited only by the quality and quantity of data collection, organization, and manipulation.

The utility of GIS based archaeological research is best understood by example. My firm has undertaken numerous GIS projects with objectives that included predictive modeling for submerged archaeological landscapes in New York harbor and reconstruction of genocide at a mass grave site in Iraq.

Figure 1 is a Digital Elevation Model (DEM) of New York Harbor in which currently submerged landforms are color-coded by levels of potential archaeological sensitivity. The project involved systematic submarine coring to identify landforms currently submerged and covered by silts produced over the course of sea-level rise since 18,000 B.P. The battery of cores were analyzed for evidence of intact buried surfaces that were dated by the radiocarbon method. Historic maps were consulted to examine the depths of the bay-floor prior to rapid siltation as a result of intensive navigation that began in the 19th century. Field and map analysis furnished a complex data base that was statistically analyzed and produced a map of submerged terrain types suitable for settlement over discrete prehistoric and historic periods. That map serves as a guide for preservation planners whose charge is to clean out navigation channels without adversely impacting tracts of archaeological sensitivity.

Figure 2 synthesizes the events attendant to systematic shooting and burial of a population of

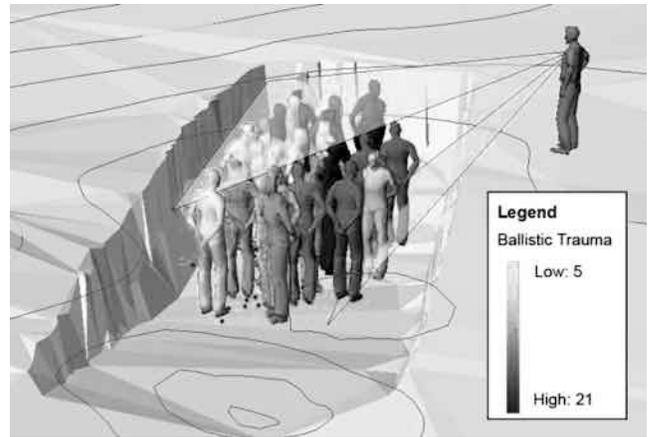


Figure 2: Forensic analysis of a mass grave in Iraq.

Kurds in southern Iraq during Saddam Hussein’s Anfal campaign in the late 1980’s. GIS was used to map the placements of bodies and related artifacts (clothes, bullet-cartridges, personal effects) and then to generate the events and timelines of shootings at the mass grave site. Analysis of bullet hole angles and trauma gradients allowed for detailed death sequencing that explained resting positions at the time of excavation. The GIS imagery and timeline constructs were pivotal to conviction of the perpetrators.

In sum, GIS is and will continue to be at the vanguard of archaeological investigative, analytical and interpretive methodology for the 21st century onward. Its versatility addresses all archaeological domains from heritage management and compliance to research and traditional reconstructions of ancient cultures and landscapes.

-Joseph Schuldenrein
Geoarcheology Research Associates (GRA)



NEW PUBLICATION OF NOTE

Elizabeth Bartman, Friend and Past President of the NY Society, is pleased to announce her recent publication, which will be of interest to many NY Society members: *The Ince Blundell Collection of Classical Sculpture, Volume 3: The Ideal Sculpture*.

This book investigates the important antiquities collection formed by Henry Blundell of Ince Blundell Hall outside Liverpool in the late eighteenth century. Consisting of more than 500 ancient marbles—the UK’s largest collection of Roman sculptures after that of the British Museum—the collection was assembled primarily in Italy during Blundell’s various “Grand Tour” visits. As ancient statues were the pre-eminent souvenir of the Grand Tour, Blundell had strong competition from other collectors, both British nobility and European aris-

tocrats, monarchs, and the Pope. His statues represent a typical cross-section of sculptures that would have decorated ancient Roman houses, villas, public spaces, and even tombs, although their precise origins are largely unknown. Most are likely to have come from Rome and at least one was found at Hadrian’s Villa at Tivoli. Although most of the works are likely to have been broken when found, in keeping with the taste of the period they were almost all restored. Because of their extensive reworking, the statues are today not simply archaeological specimens but rather, artistic palimpsests that are as much a product of the 18th century as of antiquity. Through them we can learn what antiquarians and collectors of the 18th century—a key period in the development of scientific archaeology as a discipline—thought about antiquity.

Additional details and ordering information can be found at the website of Michael Shamansky, Bookseller Inc. (www.artbooks.com). ISBN 9781781383100.



Feature: Schnaderbeck’s Lager Cellar

A Glimpse into Brooklyn’s Beer-Brewing Past

Whenever the city, state, or federal government is involved in a development project and spending the public’s money, an environmental assessment is prepared to study the construction’s potentially negative impacts. For archaeological resources, the Landmarks Preservation Commission (LPC) makes an initial determination whether any remains of historic significance may have survived on the site. If so, the developer has to hire a certified archaeologist to prepare a property history, based on historic maps, archival material, local histories, and other sources, and determine whether archaeological excavation is needed.

Since the LPC didn’t flag the site at 33 Ten Eyck Street in Williamsburg for archaeological assessment, the relieved developer (who was building low income housing with the Department of Housing

Preservation and Development), began work in the Spring of 2015.

The backhoe was down about fourteen feet when the bucket struck something hard. The operator bashed it a few times but when nothing happened, jumped out of his cab and slid down the dirt pile to investigate. Imagine his surprise to find a hole in the brick roof of a cavernous, subterranean space! The intrepid workers brought a ladder and lights and climbed down into an immense hall forty-five feet long by twenty-two feet wide. Its brick vault, supported on massive stone walls, soared fourteen feet above their heads. From this space, an arched opening led into another vast chamber; a second arched opening into a third, and a third into a fourth chamber. The fourth and last arched opening was blocked, floor to crown, by a mass of collapsed bricks. These perfectly preserved vaults ex-

tended the full depth and almost two-thirds of the width of the one hundred by seventy-five foot lot! Everyone was mystified by the huge and magnificent structure: that it could have been buried and forgotten leaving no hint for the LPC to discover, and when and above all, why it was built.



*The Interior of the first vault.
(Photo by Christopher Brazeel)*

The developer reached out to me and, after visiting the site, I told Amanda Sutphin, the LPC's Director of Archaeology, about the extraordinary find. Excavation was suspended until the archaeological assessment could be completed and all the parties involved agree on how to mitigate the expected damage from construction. This took over a year, but it was finally decided to preserve the structures, although three of the four vaults would be filled with concrete. The fourth would remain vacant, but buried under the backyard and inaccessible.

An 1868 map revealed that the cellars were part of the "Schnaderbeck Brewery", which included the adjacent building on Maujer Street, the two formerly connected by the blocked opening in the cellar's fourth vault. The Maujer Street building, now apartments, once housed both the brewery and no doubt also a Bierstube, or "beer room", where neighbors could sample Schnaderbeck's lager. Before refrigeration, lager brewers often served only local markets because once the keg was tapped, the lager quickly lost its carbonation. Of course, all beers are made with a fermented cereal and yeast, which produces the alcohol and the carbonation, but lager uses a different kind of yeast, which ferments at the bottom of the vat instead of the top,

and requires aging at low temperatures. Hence the need for the vast cellars. Made in the winter and tapped in the summer, the refreshing lager beer—after the German word for storehouse—is lighter in color and more effervescent than ale.

Sebastian Schnaderbeck was born in Baden-Württemberg, Germany in the early 19th century and immigrated to the United States with his wife and son around 1847–48. He opened a wine import business on Spruce Street in Manhattan but lived in Williamsburg. The business was evidently successful because by 1859 Schnaderbeck was able to build the brewery and purchase the necessary kettles, tubs, grinders, etc., all of which represented a huge investment. The timing of his new venture was excellent: there was still almost no competition but the demand for lager was soaring, thanks to the influx of thirsty German immigrants. They moved into Manhattan's Klein Deutschland on the Lower East Side, but also to Williamsburg where, during the 1850s, the population more than doubled. In 1855, Schneider's Congress Brewing Company put out 5,000 barrels to quench the Germans' thirst for lager. He was one of only three Williamsburg lager brewers preceding Schnaderbeck. The others were Nicholas Seitz, who started making lager in 1850 and Samuel Liebmann's Sons who, like Schneider, started up in 1855.

By 1873, there were thirty breweries in Brooklyn, now the beer-brewing capital of the United States. The epicenter was just southeast of Schnaderbeck's, along "Brewer's Row", which extended east from Lorimer Street between Scholes and Mesevole Streets. Those who made lager must have had deep cellars but it's not known whether their vaults still exist or in what condition. The Nassau Brewing Company's cellars at 1042 Dean Street survive and are now occupied by the Parish Hill Creamery's cheese-aging operation. But they are all brick built, without the stone foundations and end walls of Schnaderbeck's vaults, and their crowns are lower and flatter. The Huber Brewery, established in 1866 in a pre-existing facility, had approximately 30,000 cubic feet of storage cellars. The surviving buildings at 1 Bushwick Place sold in March 2015 for \$26 million and are now occupied by music rehearsal and recording spaces, as well as a large beer hall and garden. Unfortunately, I have no informa-

tion about their cellars. It would certainly be interesting to make a full survey of all the old addresses and get permission from current owners to investigate. But according to historic records, Schnaderbeck's would still be among the earliest.

Because they are probably the earliest surviving lager vaults in Williamsburg and were perfectly preserved; because brewing was a major factor in the economic development of Williamsburg in the later 19th century, and because beer production and beer drinking played such an important part in the advancement of German immigrant society, the LPC and the State Historic Preservation Office deemed Schnaderbeck's vaults eligible for inclusion on the National Register of Historic Places. The documentation of the site would therefore need to meet high standards of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER). The developer had to wait until we could take detailed photographs and measurements and was required to clear the soil covering the vaults as much practicable, without undermining the structures on the adjoining lots. This was done in August 2016.



*Drone photograph of the top of the vaults.
(Photo by Peter Heyl)*

The structures were so sturdy that the backhoe operator had no fear in rolling over them from one end to the other, even when only a few feet of soil were left to disburse the weight of the tracks. The top was thickly plastered, still fairly waterproof. Coming back to the site after a rainy night, we found puddles in the troughs between the vault crowns. The muddy floors came from the opening for the ventilation chimney on top of each vault, one of which was preserved to almost seven-and-a-half feet. There were also square piers standing

above the vault walls, two of which were preserved to an even more astonishing thirteen-odd feet high! The piers were evidently part of the building shown on historic maps, but it's not clear how, or what was in the space between the top of the vaults and the basement floor. If the building was the brewery's ice house, then perhaps the chimneys and the brick shafts built into the vaults' stone end walls were intended to circulate cold air in the cellars.

Christopher Brazee took the 4x5 black and white photographs required for HABS/HAER documentation, and I'm grateful for his generosity and excellent work. We also applied the newer technology of "Structure from Motion", which turns series of images into 3D models using the Agisoft program. Arnulf Hausleiter and I shot the interior using a gopro camera. (Arnulf was a fellow at ISAW last year and gave a lecture there for our NY Society). It was difficult to keep the miles of extension cords from getting entangled and to achieve even lighting using multiple work lights. It was even harder to hold the camera steady as we slid through the mud or tripped over the brick piles littering the floors. The tops of the vaults were photographed by Peter Heyl, using a drone. All the videos are being processed by Arnulf's Berlin-based colleague Matthias Kolbe. In January, I will share our results at the annual conference of the Society of Historical Archaeology.

Everyone who saw the vaults fantasized about how they could be reused. Why not have a beer hall in them, for instance? Micro-breweries are popular in Williamsburg and the hipsters would love it! But the developer nixed the idea because it would be too expensive to get the space up to the Building Department's code. After a year of discussions, revisions, and archaeology, they felt they'd spent enough time and money. Although the project's engineer and architect regretted it, all they could do was shrug their shoulders. When I last visited the site in September 2016, the chimney and piers had been knocked down and the vaults were again disappearing under backfill.

- Celia Bergoffen

Fashion Institute of Technology



*In this issue: Read about what's hidden beneath old New York.
Celia Bergoffen and Peter Heyl standing atop the third vault of the Schnaderbeck Brewery
lager cellars, discovered in Brooklyn. (Photo by Peter Heyl)*

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