Video Games and Archaeology
¡La SAA llega a la América Latina de nuevo!


La capacidad máxima para la Conferencia es 250 asistentes. La inscripción empieza en el SAAweb en febrero de 2017. No habrá posibilidad de inscribirse en la Conferencia misma y todos los asistentes deberán hacerlo antes del evento. Se ofrecen descuentos especiales para los colegas latinoamericanos y caribeños.

Si tiene cualquier pregunta, no dude en contactar a Tobi Brimsek por teléfono a +1-202-789-8200 ext. 102 o por correo electrónico a (tobi_brimsek@saa.org). ¡Esperamos verlos en la tercera Conferencia Intercontinental de la SAA!
From the President

Volunteer Profile: Jayur Madhusudan Mehta
Journey through the Landscapes of Vancouver

Video Games and Archaeology
Video Games in Archaeology: Enjoyable but Trivial?
The Archaeologist Who Studied Video Games, and the Things He Learned There
Toward Archaeological Tools and Methods for Excavating Virtual Spaces
Archaeogaming, Ethics, and Participatory Standards
Surviving the Middle Ages: Notes on Crafting Gameplay for a Digital Historical Game

In Memoriam: Robert Porter Powers
In Memoriam: Douglas W. Schwartz
SAA Financial Statements
Calendar
News & Notes

On the cover: Tara Copplestone, University of York Centre for Digital Heritage Ph.D. student, demonstrating her reconstruction of the landscape surrounding Clifford’s Tower. Photograph courtesy of Colleen Morgan.
EDITOR’S CORNER

Anna Marie Prentiss

Anna Marie Prentiss is a professor in the Department of Anthropology at the University of Montana.

It is the twenty-first century and, like it or not, video gaming has become a major component of Western lifestyles. Indeed, the Entertainment Software Association estimates that 155 million Americans alone play video games with 2014 expenditures on gaming content exceeding $22 billion (Dennis, this issue). A brief perusal of game content also reveals themes that often incorporate archaeological content, sometimes highly accurate, other times not so much. Given these numbers and an evident fascination with the past by designers and consumers of games, we as archaeologists would be well advised to engage further with the world of gaming.

Colleen Morgan has organized and guest edited a special section of the SAA Archaeological Record dedicated to explorations of video games and archaeology. The content of the special section will be delivered in two parts, the first six articles in this issue and the next three (authored by Colleen Morgan, Tara Coppestone, and Erik Champion) in one of our 2017 issues. Those presented here introduce a diverse set of perspectives on the topic. Mol et al. introduce some of the research findings of the VALUE group, exploring public aspects of video games involving archaeology. Among many important points, they conclude that there are abundant opportunities for archaeologist and game designer collaborations to their mutual benefit. Graham discusses video games in archaeology as tools for researching the past as well as communicating our findings. He reflects on the natural ties between developing games and conducting archaeological research spanning use of tools like GIS to interpretation of patterns in the material record. Reinhard explores the challenges of “excavating” games thereby contrasting and comparing the tools used by traditional field archaeologists with those of video game researchers. González-Tennant considers the uses of walking simulators to encourage exploration of other worlds as might be developed from archaeological research. It provides new media for archaeologists to engage with the public regarding important aspects of history. Dennis engages with ethical concerns regarding video games, exploring issues associated with, for example, looting, violence toward women, and the political process. She also raises the very real issues associated with inter-gamer interactions that at their worst can include misogyny, white supremacy, and anti-intellectualism. She closes with some reflections on problems and prospects for researching gamer behavior and gaming communities. Hiriaart describes his process of creating a game centered on post-medieval Anglo-Saxon England that permits users to explore and experience cultural life and the unfolding of history on multiple scales from micro to macro.

This issue includes updates from SAA Executive Director, Tobi Brimsek, and SAA President, Diane Gifford-Gonzalez. Andrew Martindale provides a thoughtful introduction to the city of Vancouver, site of SAA’s 82nd Annual Meeting. Finally, we include our volunteer profile column, this time authored by Jayur Madhusudan Mehta. As always, I hope you find the issue stimulating and perhaps a bit thought provoking!
Looking back, the late summer was a time of scholarly meetings and a crisis involving questions of Section 106 compliance. Looking ahead, the fall offers you the chance to volunteer for service to SAA.

Representing SAA at WAC-8 Kyoto
Tobi Brimsek represented SAA at the European Association of Archaeologists’ annual meetings in Vilnius, Lithuania, and she and past presidents Jeff Altschul and Vin Steponaitis represented SAA at EAA's Presidents’ Luncheon. Meanwhile, during the same time span, I traveled to Japan to represent SAA at the WAC-8 meetings. While WAC does not have a counterpart presidents’ gathering over a meal, I was invited to speak for ten minutes at WAC-8’s opening plenary session. Rather than try to represent SAA’s history and positions in ten minutes, I spoke of the challenges that global climate change will present archaeologists in the not-very-distant future, with some examples of archaeology’s relevance to planners and to local communities.

DAPL, USACE, and Section 106
While in Kyoto, I was informed that the situation concerning the Dakota Access Pipeline (DAPL) had reached a very volatile stage. With members of the Board, I judged that it was appropriate to send a letter of concern regarding compliance with federal cultural resource protection legislation, especially regarding the US Army Corps of Engineers’ (USACE) use of their Appendix C variant of Section 106. I asked a fact-finding subcommittee of Board members with extensive CRM experience to research relevant background on the DAPL issue and to report to me, with documentation, on the situation. Based on their swift and thorough efforts I drafted a letter that was reviewed by them, Government Affairs Committee Chair Donn Grenda, and David Lindsay, SAA manager, Government Affairs. The letter as amended was sent to the USACE Chief of Engineers Lieutenant General Todd Semonite on September 13, 2016. We share with the Advisory Council on Historic Preservation (ACHP), which sent multiple communications to USACE voicing their concern starting in early 2016, and with the American Cultural Resources Association (ACRA) (see their September 28, 2016, statement: http://www.acra-crm.org/page-18082) a deep concern about the lack of consistency between the Section 106 process most stakeholders know and attempt to follow and that of USACE. SAA is making clear to ACRA and ACHP that we are allies in this concern.

Reconciling Office of Personnel Management and Agency Qualifications Standards
Over the last few years, SAA members in federal agencies have repeatedly expressed to SAA officers their frustration with a lack of progress by the Office of Personnel Management (OPM) in updating qualifications standards for their Archeology Series and other positions in relation to standards of agencies employing archaeologists, museum curators, and historians. OPM was tasked with beginning this process in 1992. The US Department of the Interior and the US Department of Agriculture recently updated their classifications and revisions are underway in the Department of the Army. Beginning in February 2016, SAA repeatedly prompted OPM to contact agencies to initiate the process of harmonization of qualifications standards. In a June 21, 2016, letter and in follow-up communications in August and September, OPM responded to SAA initiatives. In September, I spoke with the human resources specialist in the Classification and Assessment Policy Office, Human Resources, who informed me that OPM will undertake a complete qualifications standards review for the Archeology Series, GS-0193; Museum Curator Series, GS-1015; and Historian Series, GS-0170 beginning in 2017. This will involve contacting the federal agencies employing people in these posts. Progress in such a long-delayed reconciliation of standards is a welcome development. We are happy if SAA has played a positive role in moving these classifications up in OPM priorities.
Open Call for Committee Volunteers

I continue to be deeply impressed by the commitment, intelligence, and enthusiasm of members of SAA’s committees. Please do respond to the open call for volunteers, to be opened on November 10, 2016, which allows us to recruit first-time as well as returning volunteers into our committees. With a few exceptions, most SAA committees are required to have student members. Returning volunteers, remember that if your term on a committee is going to be up in 2017 (check on your committee’s listing at SAA’s website), you will have to volunteer again.
IN BRIEF

Vancouver 2017: March 29—April 2

Have you made your reservations yet for Vancouver 2017? The annual meeting is a bit earlier than is typical. Links to all reservations sites are available on SAAweb (www.saa.org), along with full information on the location of each of the hotels. Here is a summary:

Headquarters Hotel: Hyatt Regency Vancouver
Reservations cut-off date: March 6, 2017

Exclusively for Students: Days Inn
Reservations cut-off date: February 28, 2017

Please call the Days Inn at +1 (604) 681-4335 and use Code: Society for American Archaeology (not our acronym, SAA) when making reservations for the annual meeting. Please note that students must present a student ID to qualify for student rates.

Overflow Hotels and Additional Student Blocks:

Marriott Vancouver Pinnacle Downtown (Overflow and Student Block)
Reservations cut-off date: March 8, 2017

This overflow hotel also offers rates for students. All students will be expected to present a student ID when checking in. There are separate links on SAAweb for the regular and student blocks at this hotel.

Pinnacle Vancouver Harbourfront Hotel (Overflow and Student Block)
Reservations cut-off date: March 8, 2017

This overflow hotel also offers rates for students. All students will be expected to present a student ID when checking in. There are separate links on SAAweb for the regular and student blocks at this hotel.

Coast Coal Harbour Hotel (Overflow—No Student Block)
Reservations cut-off date: March 8, 2017

January 24, 2017, and a Chance for a Free One-Year Membership in SAA!

A special opportunity for you!!! Register at the headquarters hotel or any of the overflow or student hotels for the SAA meeting by January 24, 2017, and your name will be entered into an SAA drawing for an incomparable prize—a one-year membership in SAA! Make your room reservation today! There will be five separate drawings, one for each of the SAA hotels.

November 10—November 30, 2016:
Open Call for SAA Committee Service

As you may be aware, each year there is an “open call season” for volunteers for SAA committee service. You will have received an e-mail on November 10, 2016, with a link to the committee service application. The call will remain open until the deadline of November 30, 2016. Committee chairs and Board liaisons to the committee will then have one month to review applications and make decisions. By mid-January, appointment letters will be generated from the SAA office. We hope that you will want to get involved!

Staff Transitions

Effective September 1, 2016, Jonathon Koudelka was promoted to manager, Financial and Administrative Services from his previous position as coordinator of that program. We are delighted to have been able to provide this opportunity in staff development.

On September 12, 2016, Maya Allen-Gallegos was welcomed to the staff team as manager, Publications. Maya brings seasoned experience to the SAA publications program from her previous long-term positions with the University of New Mexico Press.

December 31, 2016, will mark the last day of employment at SAA for Maureen Malloy, manager, Education and Outreach for the last 16 years! To say that Maureen will be missed is an understatement. She is going on to explore new projects, and the staff wish her the very best! There will be a huge shift in the position effective January 2017. The manager, Education and Outreach will become a full-time position. The expansion of this role is long awaited. The transition and the budget allow for the Society to rethink the position, and the executive director, along with the current manager, Education and Outreach will be searching for her replacement over the next two months. The position is being advertised on both LinkedIn and SAA’s own Career Center.

Tobi A. Brimsek

Tobi A. Brimsek is the executive director of the Society for American Archaeology.
I currently serve on two different committees for the Society for American Archaeology, and I previously served on several committees for the Southeastern Archaeological Conference. I am excited to chair the SAA Award for Public Education Committee for two reasons: 1) I have the opportunity to learn about all of the exciting outreach, education, and service other archaeologists are doing for their communities, and 2) we have the honor of recognizing the hard work and achievements of other archaeologists. In addition to serving on a committee dedicated to the celebration of colleagues, I am also a committee member with a more somber assignment: the SAA Task Force on Sexual Harassment. We have been tasked with designing a survey instrument to study the impacts of sexual harassment within our own community, a role that, while difficult, is essential to enhancing and promoting equity in our discipline.

My first direct application of service learning through college teaching took place while I was an adjunct professor of environmental studies at Tulane University. I serendipitously met Katie Brasted, the director of the Woodlands Conservancy, a nonprofit organization that manages a tract of hardwoods south of New Orleans, and I asked her what introductory students in my course could do for her. Her answer was simple: do research on this property and ensure that its conservation is tied to its importance. Luckily she was already working with Sean Anderson at California State University–Channel Islands, and I easily integrated my students into their ecological research on native and invasive flora and fauna. For several years, my students worked collaboratively with his—my freshman and sophomore students paired with his upperclassmen and graduate students—learning pedestrian and ecological survey while also providing a service critical to the nonprofit’s mission.

Service and volunteerism continue to play an important role in how I choose to teach and conduct research. This fall, my collaborators and I will present our findings from an interdisciplinary project at the Bayou Grand Caillou Mounds, a Plaquemine culture site in coastal Louisiana, to the United Houma Nation. We are also organizing a volunteer cleanup effort to remove roadside debris and trash from the site. In previous years, while teaching the Tulane University field school at the Carson site, an important Mississippian mound center in the Yazoo Basin of northwest Mississippi, I partnered with the Griot Youth Program, a nonprofit organization dedicated to enhancing arts education among underserved communities. For our service work, we taught their younger students about the archaeology and history of the region, while also leading site tours through our excavations. As part of a collaborative exchange, I also embedded my students in their arts workshops, such that my college-aged students had the opportunity to interact with middle- and high-school-aged students from rural Mississippi, an encounter that would otherwise never have happened.

I write this piece during my last week of planning before the school year starts at the New Orleans Center for the Creative Arts (NOCCA), an arts-focused high school for gifted artists in southeastern Louisiana. I find myself planning lessons for my course, *Encounters and Their Consequences*, about history, English, archaeology, and current events. In my teaching, I strive for project- and inquiry-based learning, with community engagement, volunteerism, and service at the core of my pedagogy. As we begin covering the development of West African kingdoms and the musical and song-based oral-historical traditions from the region, I plan to ask my students to record the stories and songs of elders in their community and to rewrite their narratives into a song, poem, or story, performed and recorded for the class. I plan to compile their work into a publicly accessible website and for it to become an archive of underrepresented histories in New Orleans. This teaching is also *seva*—many things are or can be—and whether we call it engagement, service, or volunteerism, it is an advocacy that enhances the relevance of a single artifact, a whole summer of excavations, or an entire career.
Vancouver is a place of many landscapes. The urban metropolis that will host the 82nd Society for American Archaeology Annual Meeting is its most visible surficial layer. Consistently ranked as one of the world’s most livable cities (Economist Intelligence Unit 2016), Vancouver boasts a dynamic and multicultural population. The desirability of living in a city by the sea enjoying the mildest climate in Canada has resulted in considerable growth since its founding in the late nineteenth century. Its citizens have wrangled with this history, enacting visionary planning policies such as the founding of the country’s largest urban park, the 405-hectare Stanley Park, as its first municipal order of business in 1886, and the rejection of urban highways in favor of public transit in the 1960s. The location of the annual meeting, the Vancouver Convention Centre, is a government-owned facility at the nexus of the urban downtown and transportation hub for floatplanes, rail, bus/seabus, and cruise ships that, among other green features, supports the coastal fire service. Like many. So social conflict along economic and cultural lines is pervasive and ongoing. Vancouver’s landscapes change with the people who walk them.

These dynamics are nothing new. The place that is Vancouver has always been a mosaic of geography and ecology and a crossroads of people and their history. Surrounded by mountains, valleys, ocean, and islands, the city rests on the massive delta and terminal moraines of the Fraser River valley. Indigenous people, whose territory includes Vancouver, trace their ancestry back to beginning times, when the world was still forming, a landscape that, in archaeological terms, experienced dramatic swings in relative sea level from both isostatic and eustatic effects during the epiglacial era. Indigenous histories of this place, like all histories, reflect a complex dynamic between the constraints of circumstance and the volatility of historically contingent choices. Although the archaeological sample is modest and skewed to biases of modern demography, geology, and cultural expectation, it captures several notable trends. The first is continuity. This is a place of tradition whose indigenous-descent communities today emerge out of the long histories of their ancestors. Archaeology may exist in some contexts independent of living memory, but in Vancouver it does not. The second is balance. Indigenous society balanced the countervailing forces of demography and abundance, of conflict and negotiation, of surplus and necessity, of, as Coupland et al. argue (2009), hierarchy and communalism. The legacy is a millennia-long trend of resource-managed sustainability (see for example Lepofsky et al. 2015; McKechnie et al. 2014) that was only inverted, as Bodley (2012) argues, with the arrival of a deepening disjunction between collective goals and economic self-interest consequent to the colonial era. The third is resilience. Though visitors to Vancouver may not easily see the people or hear the voices that echo this history, it is here.

Consider, for example, the Musqueam Indian Band’s reassessment of their place names and history on the urban landscape (www.musqueam.bc.ca/musqueam-our-history-web-map), the exploration of archaeology via the virtual museum of the Sḵwx̱wú7mesh Úxwumíxw (http://www.squamish.net) and Tstelí-Waaututh Nations (http://www.twnation.ca), and the City of Vancouver’s own First Peoples: A Guide for Newcomers (Wilson and Henderson 2014). Each of these initiatives attempts to bring to the foreground not what is hidden as much as what is missed.

The tours for the 82nd annual meeting engage these ideas directly and ask you to see beyond what you perceive and consider the challenges of seeing what is there. These issues were explored in the award-winning suite of exhibits of c̓əsnaʔəm, the city before the city (www.thecitybeforethecity.com). Integrated at the Musqueam Cultural Centre, the Museum of Anthropology, and the Museum of Vancouver, only the latter will be open during the annual meeting. This tour of the exhibit is co-hosted by co-curator and Musqueam community member Jordan Wilson and renowned anthropologist and museum board member Andrew Martindale is an associate professor in the Department of Anthropology, Peter Wall Institute for Advanced Studies, University of British Columbia, and the director of both the Laboratory of Archaeology and the Canadian Archaeological Radiocarbon Database.
Dr. Bruce G. Miller (UBC). čəsnaʔəm, known to archaeologists variously as the Eburne Midden, Great Fraser Midden, and Marpole Midden, recently made headlines when ancient burials were uncovered through urban development and the Musqueam strove to protect them. This collaborative exhibit project was developed to generate public discussions about heritage and indigenous history and to raise awareness of the significance of čəsnaʔəm for the Musqueam people and for Vancouver. The exhibition reexamines the historical collection and display practices of the museum itself within the context of colonial history, and the tour presents a rare opportunity to consider this effort in conversation with two of its leading scholars.

The urban landscape has not fully obscured the indigenous or archaeological past. Our second tour is a bus tour led by Dr. Rudy Reimer/Yumks (SFU/Squamish). This tour will visit three to four important indigenous places within what is now known as Stanley Park. Prior to and through the contact period with Europeans and other settlers, this area was central to First Nations cultures. It was well settled and used in a variety of ways. This tour will make stops at archaeological sites, traditional use areas, and places integral to Coast Salish belief. The opportunity to join Rudy as he navigates through archaeological, historical, urban, and spiritual landscapes is not to be missed. Be prepared to walk, rain or shine. Snacks recommended, water is provided.

Our third tour is to UBC’s Museum of Anthropology (MOA) and Laboratory of Archaeology (LOA). Both institutions are dedicated to world arts and cultures, and both have a special emphasis on First Nations of British Columbia. This tour has two variants. In the first, the focus will be on fiber and textiles. This tour, co-sponsored by the SAA Fiber Perishables Interest Group (but open to all SAA members), will be led by MOA conservator Heidi Sweiringa. It will include behind-the-scenes exploration of wet-site basketry and Peruvian textiles. The second variant will be led by Dr. Sue Rowley (UBC) and focus on the recently renovated research facilities and exhibits of LOA and MOA and the long history of engagement between these institutions and First Nations. Both tours will provide an opportunity to visit MOA’s exhibits including Layers of Influence: Unfolding Cloth Across Cultures, a cross-cultural display of clothing from MOA’s worldwide collections curated by Dr. Jennifer Kramer (UBC), MOA’s curator of the Pacific Northwest. Note that registrants for the annual meeting receive discounted rates to both the Museum of Vancouver ($9) and the Museum of Anthropology ($16) anytime during the conference.

In academic settings around Vancouver it has become somewhat rote to start any proceeding with the acknowledgment that we gather on traditional and unceded indigenous territory; the SAA is no exception, and its opening session will include First Nations representation. I suggest we consider more fully what is at stake in this declaration. The identification of an indigenous territory is an acknowledgment that colonization has usurped land and other rights, and I would argue that reconciliation in these terms remains unresolved. An invocation of the traditional nature of these claims reminds us that the legal and cultural arena in which reconciliation is to be effected includes and perhaps shifts to the legal systems of the indigenous communities. Thus aspirations of neutrality and objectivity in non-native courts and governance mask a double standard that perpetuates colonial asymmetries (Martindale 2014). Third, the acknowledgment itself asks guests to be respectful of our hosts, including recognition that the world we are in is not simply the world as we perceive it (Martindale and Nicholas 2014).

Thus, this now-standard acknowledgment toward indigenous hosts should be more than a gesture; it is implicitly a request to make the world a better place. This activism extends beyond how we act and includes challenges to how we understand. Archaeology is not simply a practice, but a way of knowing. For example, I work with Penelakut elder Jillian Harris using archaeology to identify the graves of children who died at the Kuper Island Indian Residential School on the Gulf Islands to the west of Vancouver, a government-sponsored institution that operated for almost a century and had the highest child mortality rate of any residential school in Canada. Though we look for unmarked graves, Jillian argues that our task is really an exploration of spiritual trauma across a sentient landscape (Harris et al. 2016). I cannot see and do not understand what this means, but I am unwilling to argue that her perception is wrong. Rather, I try to respect what she sees as we work together.

Those of us who embrace the challenge of exploring other peoples’ histories through archaeology are well aware of the situatedness of knowledge, even as we strive for objectivity, verifiability, and reproducibility of our results. The landscapes of Vancouver are numerous, and visitors for the meeting will find their own path and make their own history here. There is value in remembering that we are neither the first nor the only ones to travel these lands.

References Cited

Bodley, John H.
Carlson, Keith Thor (editor)
Introduction to the Theme “Video Games and Archaeology”

Video games are a growing concern in academic research and present a considerable attraction for archaeologists who wish to present their research in a media format that can incorporate multiple perspectives, alternate narratives, and 3D representation to audiences that may not be engaged with other forms of academic literature or media regarding archaeology. Since Watrall’s (2002) formative article in the SAA Archaeological Record and Public Archaeology, experimentation with gaming and archaeology has expanded considerably. The diversity of the articles featured in this dedicated issue reflects this growth.

Much of the research on video games and archaeology and heritage incorporates what could be characterized as “media archaeology.” Though media archaeologies are usually within a Foucauldian discourse that draws on tropes of archaeology without engaging with archaeological method or theory, it has recently been the topic of interdisciplinary work in contemporary archaeology. Archaeologists, it has been argued, are the prototypical media archaeologists, “studying media (in their broad conception, as discursive and material means to a plurality of different ends/processes), inventing and tinkering with media to progress such studies, and skilfully deploying other media to circulate this work” (Perry and Morgan 2015). Archaeologists who study video games illustrate the energy and creative potential within this interdisciplinary space, with research that investigates the history and materiality of archaeological games as artifacts, including the literal excavation of video game cartridges and other gaming material culture, the critique of archaeological content in video games, the use of gaming strategies to query past landscapes, collaboration with gaming studios and gamers to create archaeology-based games, and the creation of video games by archaeologists.

The authors in this issue show the nuance of video game research in archaeology through particular case studies. This collection also reveals a community of practice deeply involved in digital-making and participatory research, known in part under the #archaeogaming hashtag on Twitter and through blogs such as Play the Past. As the VALUE Project demonstrates in their article, many academic archaeologists play video games, though few connect them to their research. At Leiden University, 69 percent of undergraduate students, graduate students, and staff members play video games, yet many who responded to their essay felt that “real archaeology” is not exciting enough for games. Further, Graham notes that many colleagues do not find video games worthy of academic study, despite their obvious financial and cultural impact and the emerging complementary field of game studies. That there is controversy is surprising, considering archaeology’s early forays into and continuing engagement with virtual reality for producing archaeological reconstructions. Champion also notes considerable opposition to academic engagement with games but argues that virtual heritage projects and serious games have in fact failed, and that archaeologists should instead focus on the expected audience for digital media. He mentions a new UNESCO Chair of Cultural Heritage and Visualisation that will build a repository of 3D heritage models to improve public accessibility. This effort toward the curation and preservation of 3D models speaks to a growing awareness of digital materiality within archaeology and heritage.

Video games provide landscapes and objects that are productive for archaeological investigations of digital materiality. Reinhard explores the tools that can be used to “excavate” video games and suggests adapting GIS for survey and analysis in virtual spaces. He is leading a group of archaeologists exploring No Man’s Sky, a procedural video game in which landscapes, creatures, and objects are created by algorithms rather than manually. This builds on Graham’s suggestion of a link between landscape archaeology and the
investigation of the genre of walking simulator video games as a digital flaneur, in which the digital material culture is more important than the gaming mechanics. González-Tennant speaks to the utility of the walking simulator video game in constructing places and archaeological narratives. Yet it should be noted that most gameplay does not respect the integrity of digital artifacts. The respondents to VALUE’s survey mentioned earlier felt that any archaeological or historic themes were overshadowed by what they see as “loot ing” behavior within video games, such as crushing old pots or destroying tombs for treasure. This is further expanded on by Dennis, who writes about the applicability of current archaeological ethics to video games and virtual material culture. She also expands on aspects of gamer culture that are potentially abusive to academics studying video games, a caution for those who wish to engage with this particular medium.

Beyond the archaeological investigation of existing video game cultures and landscapes, archaeologists are increasingly modifying games or creating their own games. In my submission to this special section, I encourage an interventionist attitude toward popular games. After building Çatalhöyük in the open world of Second Life and Star Carr in Minecraft, I found myself surprised at the creativity and engagement that players had with the archaeological sites. Several archaeologists are using the Unity game engine as a platform to reconstruct archaeological sites and to make archaeology-themed games. As mentioned previously, González-Tennant explored the walking simulator by using Unity to reconstruct Rosewood, Florida, a community destroyed in 1923 in a week-long incident of race-based violence. As a testament to the flexibility of the platform, Hiriart used Unity to create an Anglo-Saxon landscape in England. Hiriart is not an archaeologist, but a game developer and lecturer interested in telling microhistories through games. Copplesstone also used Unity for a very different game, Adventures in the Gutter, that does not reconstruct an archaeological landscape but invites the player to assume the role of an archaeologist making interpretive decisions, one from the British Museum and the other as a field archaeologist. In all of these instances, the authors note the utility of making the game in provoking new questions regarding archaeological practice.

In this issue I have gathered voices from the #Archaeogaming community of archaeological explorers and makers that demonstrate the vibrant interdisciplinary research within the archaeology of video games. I encourage the readers of the SAA Archaeological Record to join the conversation and to come with us to explore new digital vistas. Note that not all publications mentioned in this introduction are included in this issue. Three articles by Colleen Morgan, Tara Copplesstone, and Erik Champion will appear in a subsequent issue in 2017.

References Cited

Perry, Sara, and Colleen Morgan

Watrall, Ethan
The thrill of discovery and exploration combined with the opportunity to relive the past is something that appeals both on an instinctive and emotional level. Video games have played into this desire in several ways. As with many instances of popular media appropriation of specialized fields, archaeologists are critical of how their discipline, as well as past places, people, and cultures, are portrayed. However, as also argued by other contributors in this special issue, we feel that archaeology and video games can be combined in ways that have a positive impact on society, education, and research. This is why, early in 2015, we founded the research group VALUE: Videogames and Archaeology at Leiden University. Even if video games are not on the radar as a serious research subject, this does not mean that there is no interest in the topic among individuals. Therefore, one of the first projects we undertook was a survey that charted the interest in and appreciation of games that incorporate archaeological and historical themes among students and professionals.

Survey
This survey was conducted in February and March 2015 at the Faculty of Archaeology, Leiden University.1 One of the key questions was how many people at our faculty played video games and, if so, if they also played historical and archaeological games. Secondly, we sought to get an understanding of the perceived relevance of video games for archaeology and vice versa. Finally, we wanted to see whether people would be interested in actively taking part in future research within the field of archaeogaming.

We asked both bachelor and master students (123 students, average age 21 years old) as well as staff members (46 staff, average age 31 years old) to fill out the survey. In total, we collected 169 questionnaires, which contained both closed and open questions, as well as rating scales. The first half of the survey focused on playing video games in general: genre preference, gaming platforms, time spent on games, and preferred gaming elements. The second half was aimed more specifically at the intersection of archaeology and video games. These questions were aimed at uncovering the enjoyability, importance, and representativeness of archaeology in games.

The majority of the respondents, 69 percent, stated that they play video games. There was a difference between staff members, roughly half of whom play video games, and students, three-quarters of whom are gamers (see Figure 1). Interestingly, there is no gender gap in absolute numbers among these gamers. There is, however, a percentage difference in the gender of non-gamers, with the majority being female. Additionally, on average, women indicated that they spent less time per week playing video games, roughly under 6 hours. Male respondents play video games from 2 to 10 hours on average per week. Overall, the respondents cover a wide spectrum from hardcore gamers to more casual players, some having several pieces of dedicated gaming equipment (dedicated PCs or laptops, consoles, etc.), while others mainly play browser or smartphone games.

Archaeologists enjoy a variety of genres, with strategy games and massively multiplayer online role-playing games (MMORPGs) being the most popular. Exploration (68 percent),

1 November 2016 • The SAA Archaeological Record 11
the story (66 percent), and game characters (38 percent) are the three most important aspects of video games that attract archaeologists. The respondents were then asked to list three games they have played that were “historical” and three games that were “archaeological.” The phrasing was purposefully vague to allow respondents to associate broadly on the topics of archaeology and history. Respondents listed more “historical” (171) than “archaeological” (91) games. More unique historical games were mentioned than archaeological games (38 and 25 different games, respectively). Additionally, historical games were repeated more frequently (see Table 1). These results show that “history” is more apparent in or more commonly associated with video games than “archaeology.” It also seems to indicate that history was more broadly associated with the past in games, while archaeology was related more specifically with (stereotypes of) the profession and methodology. As such, there is a clear potential for video games to incorporate more archaeological elements or gameplay in order to make our discipline’s unique understanding of the human past more immediately apparent to players.

**Enjoyment/Importance Paradox**

When it comes to the inclusion of archaeological aspects in a game, the majority of respondents indicated that they highly enjoy them (see Figure 2): 51 percent stated that they found archaeology “a lot” or “extremely” enjoyable. Even so, they indicated that they felt neutral on average about the importance of these archaeological elements in video games. In other words, many archaeologists seek to play games that are linked to their studies or occupation, and they enjoy the incorporation of archaeology in games. This is the case even if the actual archaeological elements in these games are stereotypes, oversimplifications, or other forms of misrepresentation. This points to a paradoxical situation in which archaeologists enjoy games as entertainment but do not rate games to be an important and inherently valuable form of “infotainment” for archaeology. This paradox is further illustrated in the answers to an open question in our survey about the representativeness of archaeology in video games.

When asked about this representativeness, we received mostly negative responses, centered on three issues. First, it was noted that games are more about treasure hunting than

---

**Table 1. Historical and Archaeological Games as Identified by the Respondents.**

<table>
<thead>
<tr>
<th>Most mentioned historical games</th>
<th>Most mentioned archaeological games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Empires series (39)</td>
<td>Tomb Raider series (29)</td>
</tr>
<tr>
<td>Assassin’s Creed series (34)</td>
<td>Civilization V (11)</td>
</tr>
<tr>
<td>Total War series (22)</td>
<td>Indiana Jones (6)</td>
</tr>
</tbody>
</table>
collecting artifacts: “It is more looting than actual archaeology.” Secondly, respondents stated that “real” archaeology is not exciting or not popular enough for games: “Archaeology is not really exciting for most people, while video games should be exciting.” And finally, the biggest issue relating to representation was that video games are fiction, far from the truth or inaccurate: “Lots of things are popularized and not correct.”

There were a few people who responded positively on the potential benefits of representing archaeology in video games: “If done in a proper way it can be very useful for archaeology” and “It can create a lot of public awareness.” How can archaeology in games still be enjoyable, while also contributing some educational, scholarly, and societal value? Our survey did not provide an answer to this, but we have some suggestions based on our engagements with the intersections of games and archaeology over the past year. These took the form of thematic sessions in which issues of archaeological importance were featured in discussions while playing games that illustrated these topics.

Recent Examples

It is quite common for games to attempt to reconstruct monuments or cities of the past. With some notable exceptions (i.e. the Assassin’s Creed series), this is done without significant contributions by archaeologists and historians. This has resulted in chronological errors, inaccurate representations, and false perceptions of past societies. Dunstan Lowe, by surveying different games, has written about the practice of representing the Greek and Roman past as a landscape of ruins rather than as living cities (2013:84–85).

There are other examples of games that seek to provide authenticity in their gaming worlds through extensive historical and material research. A recent example, released in 2014, is Valiant Hearts by Ubisoft Montpellier. This game is set in World War I, a rare setting for a video game. It roughly follows the course of history, taking players through actual events like the battle of the Somme and the battle of the Marne. The perspective of the game is viewed through the personal stories of a few ordinary people who struggle on opposite sides of the war rather than a top-down approach of the player commanding armies and battles. To give players...
the opportunity to relate to these events and immerse themselves in the architecture and material culture of World War I, the development team not only did extensive archival research in collaboration with historians but also included the results of this research into the game as a collection of facts and artifacts that players can discover and browse.

Archaeology has more to offer than an “authentic” experience of the past. It can also provide exciting, untapped themes or designs. For instance, Apotheon, a platform released in 2015 by AlienTrap, is set in mythological ancient Greece (see Figure 3). The game borrows its design from the black figure pottery style (seventh–fifth century B.C.E.) of classical Greece. This creates the impression that one is playing a character as portrayed on an ancient Greek vase while moving through different mythological scenarios. Despite several chronological and/or mythological inaccuracies, the developers have created a beautiful setting based on ancient material culture, bringing the enjoyment of this style to a wider audience in a unique way. An interesting discussion piece by Gilles Roy (2015) analyzes the aspects that make this game interesting and compelling.

Video games equally have a lot to offer to the field of archaeology, particularly in two core areas: public outreach and research. At a basic level, video games can introduce the concept of archaeology to the public by implementing archaeology as a gameplay mechanic. The immensely popular World of Warcraft by Blizzard Entertainment, for instance, has incorporated archaeology as an in-game profession. Even if it provides a simplified version of archaeological practice, it does introduce archaeology to a huge and global audience.

Archaeological and heritage outreach has also been done extensively through the world-creating game Minecraft by Mojang. Here, archaeologists can learn from recent initiatives by museums that engage virtual and physical visitors through Minecraft projects. The Tate (2014) in the United Kingdom, for example, collaborated with artist Adam Clarke to virtually reconstruct not only the museum’s galleries but also the individual artworks. Players can enter the galleries and step into the paintings and works of art to explore the worlds behind the paintings. A similar project is currently being undertaken with the British Museum. Together with the public, they aim to reconstruct the entire museum through a large-scale crowd-sourcing project. The VALUE group has explored the possibilities of using Minecraft for archaeological reconstructions, by running a crowd-sourced event aimed to collaboratively rebuild the recently destroyed Temple of Bel in Palmyra, Syria, for example.

With regards to archaeological research, video games can be used as platforms for experimental archaeology. Colleen Morgan (2009), for instance, has rebuilt Çatalhöyük to investigate a number of topics. One of these concerned the reconstruction of ovens, which have been found extensively on the site (Morgan 2009:476). Morgan was able to experiment with these ovens and buildings in Second Life to test the effects of smoke on living conditions.

Figure 3. Screenshot from Apotheon. Image by AlienTrap Games (freely downloadable as wallpaper at http://www.apotheongame.com/).
Archaeological research is not restricted to virtual spaces that are copies or representations of real sites. Indeed, it can be equally valuable to conduct archaeological modeling or to test hypotheses in fictional spaces. For instance, World of Warcraft is an MMORPG set in an extensive world with a large player base. The large number of players, as well as the complex spaces that they engage in, have provided suitable conditions for many research projects in the fields of sociology (Bainbridge 2010), ethnography, and even epidemiology (Balicer 2005). Video games could prove to be a fertile environment for archaeological theory testing, for instance into human interaction with space or exchange networks (Mol 2014).

Conclusion

This article began by showcasing the results from a small survey about archaeology and video games conducted at Leiden University's Faculty of Archaeology. Through this survey, we were able to observe a paradox in the attitudes of archaeologists toward video games and their inclusion of archaeological elements. While the respondents enjoyed archaeology in these games, they did not find it particularly important. They noted a number of explanations for this, ranging from problems of accuracy to a lack of excitement.

The aforementioned examples are only some of a large number of current practices and developments taking place in the intersection of archaeology and gaming. They provide a glimpse of the value this field may hold for education, research, and society. This potential is currently held back by the general niche status of gaming as a serious topic to be tackled by (dedicated) archaeological professionals. On the other side of the spectrum, well-willing developers often have no access to archaeological resources and professional networks, effectively requiring them to explore the archaeological profession or the period their games take place in by themselves. In sum, we feel that closer collaborations between game developers and archaeologists are needed if video games and archaeology are to be of greater mutual value. Collaborations will increase public outreach of archaeology as well as provide new avenues for archaeological research. At the same time it will enrich video game development by creating a deeper and more accurate immersion into the past.

References Cited

Bainbridge, William Sims

2010 The Warcraft Civilization: Social Science in a Virtual World.

Balicer, Ran


Lowe, Dunstan


Mol, Angus


Morgan, Colleen L.


Roy, Gilles


Tate


Notes


2. Question 6: “What do you enjoy most in a video game?” The respondents could choose multiple answers. The percentage refers to the amount of respondents who selected this aspect out of the total number of people who answered this question.

3. These aspects may refer to archaeology as a subject, archaeology as a profession, archaeological interpretations, or anything else the respondents considered.


5. You can find our play-through of the game with commentary here: https://www.youtube.com/playlist?list=PLKbRwyeu6RQv7cFedPAF0u7pOGrVy-R-0j.

6. You can see the developing project, or sign up to participate, on their tumblr: http://museumcraft.tumblr.com/.

7. An extensive write-up of this event can be found on VALUE’s website: http://www.valueproject.nl/blog-posts/streaming-the-past/recap-of-the-palmyra-re-construction/.

8. Currently, the game has 5.6 million subscribers globally. At its height in 2010, 12 million people were subscribed to World of Warcraft, http://www.statista.com/statistics/276601/number-of-world-of-warcraft-subscribers-by-quarter/.
Tell the colleagues in your department, in your company, that you play video games, and you will be greeted with one of only two reactions: a polite murmur accompanied by the dying look of “this person is not serious,” or the enthusiastic embrace of the true believer. There appears to be no middle ground. Yet, there is a long history of using games in education, in museum outreach, and in public archaeology. There is even a (much shorter) history of using games to persuade (as “serious games” or “news games”). But there is practically no history at all of games being used to make a scholarly argument. This is to miss an opportunity.

It is important, however, to ask at the outset, what do games teach? What do games do?

The game, or any computer game for that matter, is ultimately about mechanics, and not about content. The content is window dressing, and deep playing of a game such as Civilization teaches little about history, but everything about how to manipulate the complex algorithms that model the simulation (Kee and Graham 274).

In which case, there doesn’t seem to me to be anything odd about archaeologists interested in the possibilities of video games, or any “natural” reason why archaeology as a discipline should not be concerned with them. Manipulating algorithms, modeling societies through simulation: archaeologists have been doing this for years, within the ambit of GIS and Agent-Based Models. The difference is, games have better eye candy and production values. They should. Gaming as an industry generates more money than all of Hollywood.

A Potted Synopsis of Game Studies

Broadly, there are two camps when it comes to analyzing the affective import of games. The ludologists, as the name implies, are interested in the rules of the games, the possibilities (or not) for action within the game. Narratologists on the other hand consider the story of the game, the story that emerges, or the story within which the game action takes place. Both approaches are useful for situating what a game does, or what a game achieves.

Another (rather archaeological) approach is to consider typologies of games. This is not to be confused with “genre,” as genres (“first-person shooter”; “rogue-like”; “management sim”; “casual”) are largely marketing categories that conflate issues of game play, or perspective, or agency, for the purposes of gaining space in the various venues where games are bought and sold. There is voluminous literature on the typologies of games that try to distill essential features in order to understand the crucial ways in which games differ, the better to understand their narratological or ludological aspects. In the context of “historical” games, a more useful typology that helps us consider what aspects about the past we wish to communicate, to teach, might focus on categorizing how the game treats time and space.

Briefly, within the “space” category, we can ask how the game treats perspective, topography, and the environment. Within “time,” we can wonder about pace, representation, and teleology. The value of this kind of typology is that it would allow us to consider our archaeological representations of space and time in that light, to work out what conventions of game design would be most effective in communicating the argument about the past that we wish to impart.

Third Space

Despite the neat breakdown between “narratology” and “ludology,” which would seem to capture all there is to know about video games, there is a third space that games-about-history inhabit. Kappel and Elliott’s recent Playing with the Past (2013) neatly captures this aspect. They point out that
while games are systems of rules interpreted by the computer referee, and while these systems are enveloped within a narrative, games-about-the-past have a larger historical narrative within which the game’s narrative must take place. That is to say, the players and designers are working within historical frameworks from the outset that inform their understanding of the past. Hence to make the game, to play the game, necessarily involves the kind of historical thinking (about contingency, about causality, about equipollence) that characterizes professional thinking about the past. “Why did that happen?” and “What would happen if?” are questions that players ask about the game, which are very nearly the same thing that we ask of the past.

The fact of the matter is, while the content of a game is important, it is not as important as the system of rules and relationships that govern the emergent play, reflecting on why game play evolves the way it does forces the player to understand the rules of representation. This means that game players think about the past in ways that are the same as the kind of thinking about the past that we want in our students and publics. If one studies the communities of players that coalesce around particular games (especially games that allow for “modding,” or rewriting, of the game rules, e.g., the Civilization franchise), one finds quite heated discussions about how best to represent the past, debates over the consequences and meanings of modifications to the games, and—while maybe sometimes not the most factually informed debates—a keen understanding of process in the past.

Landscape Archaeology and the Digital Flaneur

There is one particular kind of game that I think makes the inverse argument to my general thrust here; that is, the exception that proves the rule. So-called walking simulators (a term of derision used by those who feel games should only be about killing things) are games where exploration and careful reading of the landscape are the prime mechanic (critically acclaimed examples include Everyone’s Gone to the Rapture, Journey, Gone Home, and Dear Esther). In these games, the environments, the artwork, and the carefully modeled buildings and digital material culture matter far more than the mechanics (in the sense I outlined above). Anthony Masinton (2015) has pointed out that these are more akin to museum dioramas in that they are carefully constructed vignettes designed to tell a story (Gone Home might by these lights be the most archaeological game ever). I think these games are even more important than that; they are a kind of performed landscape archaeology. These games encourage a careful reading of the landscapes and the material culture within those landscapes to tease out the story that happened before the player ever arrived. By contrast, games like the Assassin’s Creed series have beautiful reconstructions that make no real difference to the game play or the story. In these, they merely serve as backdrop for a digital parkour, an experience of the past as digital flaneur.

Flow

The training of archaeologists has long had an emphasis on the practical—we learn how to be archaeologists by doing archaeology. We perform the learning. Where, and from whom, we learn the hands-on aspects of archaeology has a deep influence on how we think archaeologically, how we understand the past. This is of course why we speak of “schools” of thought. To play a video game well involves that same aspect of performance, and the “who made this and how did they imagine the world” matters equally as much. When we play a game well, we have internalized how that game represents its world. We have internalized an understanding of the system of rules and relationships that we might not even be aware of. The learning that happens through video games is deep and is tied to what psychologists call “flow.” Games don’t just represent a world; they actively watch the player. The best games adjust their difficulty in such a way as to achieve a flow state, a sense of mastery that sits in the sweet spot where the challenge is just hard enough to be difficult, but not so difficult that the player gives up in frustration. The best learning, in whatever context, is tied to that same sense.

(In a nice connection with “media archaeology,” it is worth pointing out that Space Invaders, a game that has had a pronounced influence on the world since its release in the late 1970s, created a sense of flow completely as a side-effect of the physical nature of its processor. The processor was slow and couldn’t render the graphics and sound required by the game at the start. The emergent outcome was that the game was easy to play at first as the aliens plodded along, but as the player shot them out of the sky, processing resources were freed up, making the game run faster and become more challenging. There is a physicality to video games that we as archaeologists would do well to remember.)

In representing a world to use, the system of rules and relationships that govern the emergent game play are akin to the systems of rules and relationships that we as scholars use to construct our ideas about the past: game rules are historiography. They are method and theory, all in one. In the same way that an agent-based simulation of the past encodes our ideas about how phenomenon X worked in the past (so that we can see what the consequences are of that idea for house-
hold formation among the Anasazi, say), game rules do encode ideas about (inter alia) power, ideology, action, colonialism, and empire. The game theorist Ian Bogost calls these “procedural rhetorics,” the arguments made by code (2007); the historian William Urrichio explicitly called code historiography (2005). Games about the past will be played, experienced, and internalized by orders of magnitude by more people than who ever read our formal archaeologies. And the experience will resonate far more deeply than any visit to a site or museum. We ignore games as a venue for our scholarship at our peril.

The Payoff

I have been arguing by omission that the content, the window dressing (the pretty graphics, the hyperrealistic depictions of textures and atmospheres, the 3D sound, the voice acting) does not matter nearly as much as close experience and engagement with the code and its emergent outcomes. That engagement allows a connection here with the kind of archaeology argued for by scholars such as Stuart Eve (2014) that seeks to use the mechanics of games and allied technologies such as mixed or augmented realities to focus on understanding the systems of relationships among the full sensory experience of the past. Eve calls this an “embodied GIS” that does not focus on the archaeologist’s subjective experience of place, but rather explores how sound, views, and lighting (and indeed, smell and touch) combine or are constrained by the archaeology of a place, experienced in that place. This suggests a way forward for the use of games as both a tool for research on the past and a way to communicate that research to our various publics.

Finally, we can turn our critical apparatus back to front and consider games as a venue within which we may do archaeology. Search online for “archaeogaming.” The most succinct definition of what this could be comes from Meghan Dennis (Dennis 2016): “Archaeogaming is the utilization and treatment of immaterial space to study created culture, specifically through video games.”

Archaeogaming requires treating a game world, a world bounded and defined by the limitations of its hardware, software, and coding choices, as both a closed universe and as an extension of the external culture that created it. Everything that goes into the immaterial space comes from its external cultural source in one way or another. Because of this, we see the same problems in studying culture in games as in studying culture in the material world.

Archaeogaming is a subdiscipline that requires the same standards of practice as the physical collection of excavated data, only with a different toolset. It also provides the opportunity to use game worlds to reflect on practice, theory, and the perceptions of our discipline.

Video games are an extraordinarily rich tool, area of research, and effective mode of communication whose possibilities we haven’t even begun to explore. Yet, they are not so foreign to the archaeologist’s “formal” computational experience, with ties to GIS, Agent-Based Models, and reconstructions. Play on!

Acknowledgments

Thank you to Colleen Morgan for organizing this special issue; to Meghan Dennis, Andrew Reinhardt, and Tara Copplestone for #archaeogaming; and to Anthony Masinton and @_sorcha (https://twitter.com/_sorcha) for commenting on the public draft of this piece.

References Cited

Bogost, Ian

Dennis, Meghan

Eve, Stuart

Kapell, Matthew Wilhelm, and Andrew B. R. Elliott (editors)

Kee, Kevin, and Shawn Graham.

Masinton, Anthony

Urrichio, William
The prospect of “digging” as an archaeologist within a virtual world is a paradox: how do we excavate something that’s not really there? In considering the material culture of the immaterial, we must completely divorce ourselves from thinking of archaeogaming as another kind of “dirt” archaeology. We need a new set of tools to use that are the equivalent of the pick, spade, trowel, and brush, but for a space populated by pixels and sprites. Classic, real-world requirements as elementary as measuring become complex within the gaming space. Taking levels, recording GPS points, and even photography operate differently in this new dimension. As archaeologists operating in the virtual world, we not only need to define the questions that need answering but we also need to create a methodology for “excavation” that can be shared across platforms and games of all varieties. This article attempts to articulate the first unified methodology for actual archaeological survey/excavation conducted within video games, defining the tools needed and a new kind of mathematics to understand and explain virtual topography and topology.

Tools

Field archaeologists in the real world use some (or all) of the following tools in their day-to-day on site: shovel, trowel, screen, brush/dustpan, dental pick, pickax, tape measure, line level, plumb bob, camera, computer, notebook, transit/total station, and drone, as well as remote-sensing equipment and other specialized tools. Most of these tools are useless when in a gaming world, unless a game uses these as part of its archaeology game mechanic where players can pretend to excavate and recover artifacts.

What about tools used for archaeogaming? At the time of this writing it’s a computer or console (likely both), a pointing device, and software for capturing screens, audio, and video. Services such as Twitch and YouTube Gaming allow the archaeogamer to live-broadcast an expedition to the public, as well as host edited videos. Public engagement is a key to the survival of archaeology anywhere, so having a public channel for excavating in virtual spaces could be helpful. The YouTube channel Archaeosoup has already made a few attempts at broadcasting archaeogaming expeditions in real time including Elder Scrolls V: Skyrim (Archaeosoup Productions 2015a) and The Witcher III (Archaeosoup Productions 2015b).

Newer generation consoles such as Xbox One connect to an online account, which facilitates the saving of high-definition pictures and videos captured via voice command or button shortcut on the handheld controller. Macs and PCs currently come with screen-capture software as well, and there are for-purchase programs/apps such as QuickTime Pro and Camtasia and free apps such as Open Broadcaster Software that are loaded with professional editing tools. Mobile phones require still other apps such as Bluestacks for image- and motion-capture. Still images are just as important in archaeogaming as they are to real-world archaeology. The difference between the two is with the need for motion-capture. Even the oldest games contain moving parts within a context embedded with dynamic landscapes and sound. Still images contain only partial information.

For modern games, archaeogamers share something with their real-world counterparts: drones. Games such as World of Warcraft contain fully controllable flying mounts (i.e., creatures the player rides; Figure 1), while other games such as Minecraft allow players to fly and hover. The desire and ability to view sites from above is not new and was perhaps best practiced by the team of J. Wilson and Eleanor Emlen Myers in the 1980s and 1990s (Myers and Myers 1995).
The problem of imaging games, however, lies with the software built and played on legacy hardware. Perhaps the easiest solution is to set up a camera and tripod to record what is happening on-screen. A more elegant solution might be to feed audio/video from the old hardware (or television) directly into a computer for capturing there. The former might be the only option for recording games played on handheld devices such as a Nintendo Gameboy. While it is possible to play many older games through emulators, this removes the researcher one step from the originally intended method of play, in effect removing a core element of context.

As of 2016, our toolkit is now as big or as useful as it needs to be. We need archaeogaming software, and we need it now, but it's possible that we can borrow tools from other sources to help us accomplish our documentation. Eventually these tools will be open-source (via sites such as Github). Specifically we need the ability to record on-screen locations and measurements, as well as time.

Geographic information systems (GIS) need to be able to be adapted for survey and analysis in virtual spaces, specifically for large, open worlds in contemporary games. A subset of rules could be applied to games of the 1970s and 1980s. This might place a grid over the screen to assist with documenting where things are. It can also be a “smart grid” that can expand in three dimensions to reflect the landscape/topography of a space on-screen.

In-world distances vary game to game. Archaeogamers need an app to allow them to assign a unit for a distance of measure, converting it to English/metric units for perspective. The tool can be configured to record “as the crow flies” distances as well as real distances over in-world topography, much like what is available in Google Earth. Other parameters can include volume and area for a user-defined space, or guides can identify and snap to borders for a room or region. Some games (such as those in the Tomb Raider series) contain their own versions of GPS, which can be used for relative, in-game locations of finds and features (Figure 2).

One other variable shared across all games is the relative notion of time. Time works differently from game to game, and often does not reflect the passage of time in the real world. The clock app could keep track of both real-world time and its passage in the virtual world once set for a specific game. Screen- and video-captures can include this data for record-keeping purposes. Come to think of it, recording frame-rate and number might also be helpful to the professional archaeogamer. Until that app is created, archaeogamers must first record the length of a “day” in a particular game (for those that use diurnal/nocturnal cycles), and then convert that to real-world time. Other games (such as arcade cabinet games) have their internal, relative time dictated by processor speed, which can potentially vary from cabinet to cabinet, making for intriguing margins of error in reporting on these games archaeologically (Shawn Graham, personal communication 2015).

The reason time is so important to archaeogaming is because certain in-game events (which can include the appearance of glitches/bugs) can happen at a certain fixed time in-game, which is completely separate from the passage of actual time in the real world. If archaeogamers wish to reproduce the appearance of glitches (which I am calling “gamifacts” for lack of a better term; Figure 3), sharing these with colleagues, recording both in-game time and location are crucial.

Two problems loom large regarding data collection in games containing their own physics and concept (or lack thereof) of space-time. First, most games just have states and no real-time change, just a variable state of “does the player have object X?” What ways of documenting change exist in games that use state machines for events (a state machine being a software routine that given one set, stable condition can change to another defined condition based on player input)? Second, most games have no traditional topography or are just facades on top of modeled structures, skins, and textures stretched across digital armature. What ways can archaeogamers document this kind of time and landscape (Russell Aleen-Willems, personal communication 2015)?

Methods

Any tool used by an archaeologist (including Wii controllers) must help answer issues that are universal to archaeology in
both real and virtual worlds: recover and document artifacts and their context, analyzing assemblages and stratigraphy to make connections between their deposition and history of manufacture/use.

Archaeogamers need to be able to discover, identify, and record stratigraphy, context, features, assemblages, deposits, intrusions, spits, and artifacts, clearly defining what those are within the archaeogaming vocabulary, making these intelligible to real-world archaeologists and the public at large. There will be some natural overlapping with archaeological survey (fieldwalking) and landscape archaeology, and exploring the history of use, be it an entire game or something found within the game.

When archaeologists dig, they can either do so carefully, being mindful of stratigraphy, or they can dig “out of phase,” plunging straight down without regard to stratigraphic layers. It is possible for archaeogamers to “dig” in phase when treating the games themselves as artifacts, especially when dealing with variations in game-builds and versions. Seeing something in version 1.0 might be gone in version 2.0. Revisit the findspot between versions. This is not unlike removing soil above an artifact, recovering the artifact, and then continuing down. In games, there really is no gravity or centuries of accumulated dirt. There are, however, layers of versions. This creates archaeological context within a game when viewing the game as a discrete archaeological site.

What archaeogamers are doing now is very much in line with the New Archaeology of the 1960s—basically processual. Lord Colin Renfrew (1987) once noted that processual archaeology investigates “historical processes that are at the root of change.” For archaeogaming, we can explore change of the
games, and of the cultures within those games, using artifacts as evidence for that change, understanding the shared histories of games, gameplay, environments, created cultures, enclaves, and economies. This is really no different than what traditional archaeologists do each day in the real world. Archaeogamers just happen to be asking these questions in a contained world. Think of it as astrophysics and quantum mechanics: the universe without, and the universe within.

By the time procedural games (e.g., *No Man’s Sky*) reach the point of truly creating evolving cultures that contain everything from day-to-day goods to sacred architecture to everything in between, it is my hope that we will have also evolved our tools and methods to best record and explain what is happening and perhaps why. The archaeogamer can apply archaeological methods to understanding machine-created culture, and how computers and consoles interpret code to create things that the game itself will find of use and apply within the rules of a manufactured, open, virtual world. This is not to say that there is any advanced artificial intelligence at work in procedural games, only that games by their nature are complex systems, and the mathematical complexity of the code might in fact create unintended features/artifacts that should be archaeologically documented (Mitchell 2011).

That being said, the methods of recording archaeological data from digital games will not differ too much from archaeogaming’s real-world colleagues: pen and paper, word processors and spreadsheet applications, relational databases. The environments may be different, but most of the archaeological vocabulary is shared. The potential for applying archaeogaming methods to real-world archaeology is also a possibility. This methodology should be explained in a peer-reviewed article for a “traditional” archaeological journal as part of an end-of-season site report about a surveyed/excavated virtual environment.

**References Cited**

Archaeosoup Productions


Mitchell, Melanie

Myers, J. Wilson, and Eleanor Emlen Myers

Renfrew, Colin
This article discusses how the ongoing experimentation with 3D technologies for archaeology can benefit from a deeper engagement with developing trends within video games. I am particularly interested in the recent growth of a specific genre of video games referred to as walking simulators. While initially used in a pejorative sense to describe boring games, this term now refers to a rapidly expanding category of video games that diverge from traditional ones through a reliance on evocative treatments of mature themes. Whereas traditional games rely on linear narratives of the human experience, walking simulators encourage meaningful exploration of rich worlds. They allow users to experience the lives and worlds of others in new and critically informed ways.

My discussion of this intersection begins with an overview of the core aspects of walking simulators. I then discuss how the use of this technology supports the public’s awareness and appreciation of the African American experience in Florida. This interest in exploring walking simulators focuses on their potential for social justice, and I briefly describe ongoing work at the sites of Rosewood and Prospect Bluff. The article concludes with my thoughts on how this approach supports the goals of applied archaeology, by which I mean the process of drawing on archaeological data and perspectives to engage with modern social issues.

A Primer on Walking Simulators

Walking simulators represent a rapidly growing genre of video games, one that differs from traditional games in important ways. Whereas traditional video games have budgets and labor requirements rivaling those of major motion pictures, walking simulators are typically produced by independent game studios. Like independent film, indie games benefit from the increased availability of inexpensive computer hardware and high-speed Internet access. This is a part of the broader growth of new media, or the translation of traditional media into digital formats, which provides moviemakers and game developers alike an alternative to the industrial logic of traditional media (Manovich 2001). Although traditional games make use of new media, they also reproduce the earlier industrial logic of cinema by relying on large-scale studios, expensive equipment, and well-established narrative tropes. Walking simulators, like independent films and games alike, take advantage of new media’s postindustrial possibilities.

One of the primary advantages of this new approach to video games is the ability to concentrate on narrative in new ways. A common complaint leveled against walking simulators is their lack of a linear narrative structure. However, for many this is precisely what draws them to these sorts of games. It is this type of experience that made Myst so popular in the 1990s. Since walking simulators eschew common video game conventions such as combat, scorekeeping, and a clear win/lose system, they are able to produce a more lifelike experience wherein the player explores a new world without a scripted series of events. This is illustrated by the Fulbright Company’s game Gone Home, where players take on the role of Katie, a recent high school graduate returning home after a year of backpacking through Europe. Katie’s family has moved during her absence and she returns to an empty house. The goal of the game is to discover the whereabouts of Katie’s family. As players explore the home (Figure 1), clues are revealed explaining where Katie’s sister and parents have gone. The game refuses to use worn-out supernatural tropes to explain the family’s absence. Instead, its sensitive treatment of sexuality has been hailed by critics for its ability to “plumb the depths of experience outside of gaming’s typically targeted white, male, youthful core” (Braga 2013). This focus on new forms of storytelling within games means that walking simulators are capable of reaching new audiences by providing new experiences via a familiar technology.

The experience of this new narrative style is deeply affecting
because it centers on the player’s ability to freely explore new worlds. These are often visually stunning recreations of real places, or places based on actual locations in the non-virtual (“real”) world. An excellent example of such a game is *The Vanishing of Ethan Carter* produced by The Astronauts, a small company based in Warsaw, Poland. Their game’s visual appeal (Figure 2) is achieved through photogrammetry, which involves the use of special software to extract spatially accurate 3D models from a series of photographs (González-Tennant and González-Tennant 2016). This attention to detail creates a world that feels lived in, and the freedom to explore it and piece together the game’s narrative provides players with a world they want to explore. As with *Gone Home*, the game’s mature theme draws players in, and its powerful conclusion often leaves them with tears in their eyes.

Many consider the success of walking simulators in recent years evidence of the emergence of a new kind of gamer who is interested in exploring new worlds in a more flexible way. This is possible in part because walking simulators successfully draw upon new media’s postindustrial potential. Their exploration of new narrative styles and faithful creation of believable worlds leaves players with deeply affecting memories. The gamification of archaeology has yet to harness the ability of video games to simulate believable experiences. Instead, simulation in archaeological contexts tends to focus on mathematically driven analyses of the past (Lake 2014). The creation of archaeological walking simulators represents a wholly new terrain for archaeology, one that holds great promise for public outreach and education.

**Virtual Archaeology and Walking Simulators**

The use of the term *simulation* in archaeology typically refers to computer models “which represent some facet of the real world as a set of variables linked by mathematical or logical conditions and which are studied by repeatedly replacing those variables with numbers until some specified conditions are met” (Lake 2014:259). Simulation in this sense seeks to reproduce environmental and social conditions matching the material remains uncovered through traditional archaeological investigations. Lake groups the use of archaeological simulation into five categories: reaction-diffusion models reproducing the growth and dispersal of prehistoric populations, models to examine long-term societal change through the use of agent-based modeling, two groups drawing upon models from evolutionary theory, and a final miscellaneous group for projects that do not neatly fit the earlier four. Instead of placing archaeological walking simulators within Lake’s miscellaneous group, I propose a sixth category focusing on the experiential aspects of archaeological walking simulators. In this sense, walking simulators intersect the interests of cyber-archaeology, which tends to focus on the immersive and interconnective aspects of virtual worlds. Cyber-archaeology is less concerned with crafting authoritative reconstructions of the past than with exploring the ways we experience the “potential pasts” available via virtual technologies (Forte 2010:10; Harrison 2009).

The use of virtual technologies within archaeology, or virtual archaeology, explores the use of 3D computer models to represent archaeological objects and contexts (Reilly 1990). Although a handful of archaeologists began experimenting with these technologies in the 1980s and 1990s, it was not until hardware and software costs dropped after 2000 that use expanded outside a small number of elite research institutes. Today, virtual archaeology is a rapidly expanding sub-
field as the tools for its exploration become widely available. This availability is driving a new age of experimentation, increasingly undertaken by students whose status as digital natives allows them to intuitively merge interests in archaeology and virtual technologies. My own interest in this regard continues to focus on the technology’s potential for applied archaeology, and particularly the ways it can support social justice education (González-Tennant 2013). The rise of walking simulators in recent years demonstrates that a growing segment of the public are starved for nontraditional video games. This group seeks new experiences where self-exploration and novel forms of storytelling are central to the gaming experience. Archaeologists are in a powerful position to take advantage of this growth and to communicate the past to the public in immersive and interactive ways.

Walking Simulators and Racial Violence

Utilizing video games for applied archaeology, especially as it relates to difficult heritage, is not without its risks. Many still consider video games to be a childish form of entertainment. Not only is this false—the average age of most video gamers is over 30—a growing body of research demonstrates that video games are capable of eliciting strong emotional responses while simultaneously supporting the development of critical reasoning skills (Bogost 2011). Utilizing entertainment technologies to commemorate racial violence can run the risk of essentializing complex histories of disenfranchisement. This includes the creation of one-dimensional characters or reliance on worn-out tropes drawn from major motion pictures. These pitfalls are avoidable through the flexibility and power of video games, which supports wholly new ways of communicating difficult histories to a new generation in sensitive and thought-provoking ways. A successful example of this potential is illustrated with ongoing work in Rosewood, Florida.

My exploration of archaeological walking simulators began in 2005 when I started researching Rosewood, Florida, home to a prosperous African American community that was destroyed in 1923 during a week-long episode of violence commonly referred to as the Rosewood race riot. In addition to documentary, ethnohistorical, and archaeological research, my ongoing work in Rosewood explores the use of virtual technologies to translate academic research into public knowledge. This includes the use of digital storytelling and the creation of a virtual world that reconstructs the vanished landscape of Rosewood. This virtual world remains one of the largest ever created by historical researchers and is available online at www.virtualrosewood.com. The current version of this virtual world recreates two square miles of landscape and includes nearly fifty structures representing homes, businesses, and public buildings (e.g., train depot, schoolhouse). While I was unaware of the term walking simulator when I began this project, my original virtual world is similarly focused on allowing users to freely explore the landscape. There are no non-player characters to interact with, nor any linear narratives to follow. Instead, users are able to learn about the town through the placement of historical signs at various points throughout the virtual world.

I am presently updating the Rosewood virtual world, and many of my design choices are motivated by a serious engagement with walking simulators. At the center of this process is a desire to create a believable world. In support of this goal, I am literally (re)building the virtual world from the ground up. This begins with the incorporation of LiDAR data to create a physically accurate ground surface. It is a

Figure 3. View of original and updated structure from the Rosewood virtual world.
relatively straightforward task to process LiDAR data with geographic information systems (GIS) and export the data in a format accessible by the software used to create video games (typically referred to as a game engine). The use of geospatial data supports a more accurate world upon which to place structures, roadways, and other features of the built environment. In addition, a massive update to the structures is designed to increase the virtual world’s realism. Figure 3 compares a structure from the original version of this virtual world with an updated version. This and other structures are based on the documentation of nearby, contemporaneous structures. Studying the historical architecture of north-central Florida is necessary to create as accurate a version of Rosewood as possible. Finally, new 3D models that more accurately re-create the region’s vegetation are being created and incorporated into the updated virtual world as well.

Engaging with walking simulators is particularly useful as it guides the creation of new interactive features within the virtual world. Relevant examples include the recent game *Everybody’s Gone to the Rapture*, by indie developer The Chinese Room. This game is a good example of how walking simulators can connect players with the experiences of others in sensitive and emotionally evocative ways. The game is set in the fictional village of Yaughton, a picturesque rural location seemingly devoid of life. The goal of the game is less about learning what happened and instead about uncovering the everyday lives of the inhabitants prior to their disappearance. *Everybody’s Gone to the Rapture* utilizes a simple, yet visually appealing device for players to interact with the vanished inhabitants. Small balls of light materialize as one moves through the landscape. Upon closer inspection these orbs coalesce into humanoid shapes (Figure 4), and the sound of the game changes to accommodate the voices of the vanished. Sound, typically an underutilized element in games, is one of the primary characteristics of this game. The entire tone of the game changes as the balls of light form human shapes. Once formed, the player begins to hear the final experiences of the town’s inhabitants. The haunting quality of this approach creates a deeply emotional atmosphere and connects the player to the lives of the town’s inhabitants in evocative ways.

This is similar to the use of “witness points” in the Holocaust Memorial Museum in *Second Life* (González-Tennant 2013:72–74). These witness points allow visitors to listen to the oral histories of Holocaust survivors in a virtual museum interpreting Kristallnacht. Ongoing updates to the Rosewood...
VIDEO GAMES AND ARCHAEOLOGY

virtual world incorporates this aspect of walking simulators (Figure 5). A series of oral histories with survivors and their descendants—collected through my and earlier research—provide an emotionally powerful method for users to better understand the lives of those affected. This technique also allows visitors to investigate the timeline of the riot, which extended over a period of seven days. Although there is no linear narrative in the planned updates to the Rosewood virtual world, it is possible to piece together the series of events that destroyed the town by exploring the virtual world. This interactive aspect represents the single largest update to the virtual world. The current version of the Rosewood virtual world provides users with an immersive experience. The update, guided by walking simulators, makes full use of the interactive potentials of video games to support an ongoing public outreach program.

Walking Simulators as Applied Archaeology

The rise of walking simulators points to powerful new potentials for applied archaeology. This growth demonstrates that projects connecting players to sensitive treatments of mature topics is not only commercially viable but also speaks to a growing demographic who yearn for something different than the linear stories common to video games. I hesitate to refer to this as some kind of growing maturity among those who play video games. Instead, I think the appearance of these games addresses a long-held interest that major game studios have neglected for too long. Walking simulators address this interest by crafting experiences that provide players with the opportunity to deeply connect to the experiences of others.

Heritage work in Rosewood has already benefited from a similar approach. Numerous write-ups in newspapers and magazines across Florida continue to generate public interest in the project and provide access to new, privately owned areas of the town (González-Tennant 2013:85–86). A similar project is nearing completion in regard to the Maroon experience in Florida, and particularly as it relates to the sites of Prospect Bluff and Angola (Baram 2012). Prospect Bluff, also known as Fort Gadsden or the Negro Fort, was a repurposed fort occupied by a Maroon community destroyed when forces under Andrew Jackson’s command successfully fired upon the fort’s powder magazine. The resulting explosion obliterated the fort and killed 270 of its inhabitants, a mix of emancipated African slaves and members of local indigenous tribes.

The virtual reconstruction of Prospect Bluff (Figure 6) allows users to experience this site as it existed for the first time in 200 years. The simple act of looking through the fort’s windows or over its walls along the Apalachicola River offers a unique opportunity to experience a past landscape that no longer exists. A virtual world is the only method for retrieving the experiential nature of life at the site, short of physically reconstructing buildings, which is unlikely given the site’s remote location. Techniques from walking simulators and the Rosewood virtual world are also being adopted for this project. The landscape is reconstructed from freely available LiDAR data, and visitors’ exploration of the site is accentuated through the use of on-site audio recordings and original 3D models accurately representing structures, tools, and crops dating to the period. The ability to experience common aspects of everyday life at this destroyed community is at the center of a series of public outreach events across the state. These events and the virtual world are designed to raise public awareness of the state’s unique Maroon heritage.

Figure 5. Updated version of the Rosewood virtual world.

Figure 6. Preliminary view of the Prospect Bluff virtual world.
The success of walking simulators demonstrates that archaeologists and the video game industry are moving toward one another in important and unexpected ways. As archaeologists continue to utilize these technologies we should be mindful of new approaches emerging in the video game industry. Walking simulators successfully engage the public’s imagination, and not in shallow ways. The topics, narrative style, and emotional impact of these video games can be harnessed by archaeologists for public education and outreach. Crafting virtual worlds based on historic pasts can similarly engage the public’s desire for serious content. The creation of virtual worlds representing minority experiences and hidden/erased histories supports a deeper contextualization of modern social inequality. Connecting the public with these historic moments is a form of historical memory that broadens our understanding of the ways the past continues to exert its influence in the present. Illuminating these intersections is crucial for archaeologists who wish to participate in positive social change. The use of video games by archaeologists produces experiences that are increasingly available to a wider range of people. This availability allows archaeologists to translate their research into public knowledge and supports archaeology’s growing interest in engaging with serious topics affecting the modern world.

**Conclusion**

Although a handful of archaeologists began using virtual technologies as early as the 1980s, only recently have these tools become widely available to the majority of us. The rise of new media means that we now have access to wholly new ways of representing the past. As with any new technology, this heralds a period of broad experimentation. The previous pages explore the potentials that emerging trends in video games hold for archaeology, and particularly as it relates to applied archaeology. The popularity of walking simulators highlights the public’s growing interest in engaging with serious topics via video games. Archaeologists are in a unique position to address this interest. Our broad knowledge of everyday life across time neatly intersects the growing public interest in exploring precisely those sorts of experiences. Ultimately, our ability to engage with these developments and communicate the diversity of past human experiences via video games is bounded only by our imagination.

**References Cited**

Baram, Uzi  

Bogost, Ian  
2011 *How to Do Things with Video Games*. University of Minnesota Press, Minneapolis.

Braga, Matthew  

Forte, Maurizio (editor)  

González-Tennant, Edward  

González-Tennant, Edward, and Diana González-Tennant  

Harrison, Rodney  

Lake, Mark W.  

Manovich, Lev  

Reilly, Paul  
Archeogaming?

Society, more and more, has become structured and integrated into the digital world, as we form and maintain relationships unbound by geographical distance and locate our lives and our memories within virtual spaces, such as social media, Internet webpages, and the virtual communities of our shared interests. How archaeologists function in this digital space is a topic that is increasingly being explored through scholarship in digital archaeology and digital heritage.

In light of the cultural and economic significance of the video game industry in today's society, archeogaming, or the application of archaeological principles and methods of data collection to the worlds of video games, is a natural outgrowth of archaeology as a discipline. As archaeologists, the search for material culture takes us many places, and increasingly, that material culture we seek to study, that material culture from which we draw our data, is located within video games.

According to the Entertainment Software Association, total US consumer spending on gaming content exceeded $22 billion in 2014. Data from that organization, which is the largest voice for the video game industry in the United States, indicates that 155 million Americans play video games, and demographically, that gamers are of all ages, genders, races, and sexualities (Entertainment Software Association 2015). Gaming is now, dollar for dollar and hour for hour, the most lucrative and utilized entertainment activity in the United States. Its reach is beyond film, beyond television, and beyond our best efforts, as archaeologists, at community engagement.

Archeogaming posits that immaterial worlds, such as those found in video games, are viable spaces in which to study material culture, recognizing that created cultures are the inherited product of cultural influences from within our own “real” world. By examining each game, we can isolate the particular culture of the created world, can apply archaeological and ethnographic data collection techniques, and can address larger issues of theory and practice in nondestructive, replicable ways. This article seeks to begin the task of determining what ethical concerns should be addressed in that framework, while taking into account current challenges in researching in video game worlds, including the Gamer-Gate movement.

The Applicability of Current Archaeological Ethics

If we are to consider archeogaming a legitimate form of archaeology, there are issues beyond the obvious concerns of methodologies and excavation techniques to address. As a new area of research, drawing on modern material cultural studies, ethnography, field archaeology, media studies, and digital archaeology, archeogaming has the opportunity to look at the mistakes made in the past and to counter the errors of colonialism and ethnocentrism that marked the beginning of archaeological scholarship, many of which continue to this day. To accomplish this legitimization, archeogaming has to be treated as more than just a fun exercise when unwinding after a long day in the field. It’s not enough to sign into World of Warcraft and look at Blood Elf architecture, or to ask Tomb Raider players on Twitter how they feel about new versus old Lara Croft as an archaeologist (Figure 1). Archeogaming requires, in the pursuit of archaeological research, interaction with the individuals and groups that make up gaming populations; it requires interaction with those who play games, those who create games professionally, and those who critique games as a modern form of art. Archeogaming has to be approached with all of the rigor and ethical consideration of formal ethnography. This begins, at its core, with determining ethical guidelines of practice.

Within archaeological and ethnographic fieldwork, there is an established canon of ethical practice in relation to securing
access, obtaining informed consent, guaranteeing confidentiality, and promoting the responsible publication of data, a set of norms developed through academic and commercial practice as to how work is to be conducted ethically. This set of norms, however, does not transfer directly into ethical practice within virtual spaces such as video games, presenting researchers within those spaces with new issues of appropriateness to consider (Wijaya et al. 2013). As archaeogaming attracts more scholarly contributions, it is crucial to establish an ethical framework that works within the particular challenges of researching in virtual spaces like games, and interacting with virtual communities, such as with those individuals who organize into highly stratified, closed-to-the-public, often competitive, clans and guilds for shared play in World of Warcraft.

Working within a game world is not that different from more traditional archaeological fieldwork, except for the potential comfort of one’s chair. The same problems in study arise. The same issues of ethical practice arise. Those the archaeologist interacts with may have monitors dispersed over the whole of the world, but they still have to be considered as a community and treated as actors with agency and rights. Appropriate measures for securing access, for obtaining informed consent, for guaranteeing confidentiality, and for promoting the responsible publication of data are all aspects of the archaeogaming process that require attention in planning and execution. Unfortunately, accomplishing those tasks can be made more difficult because of the digital format.

When operating within digital gaming spaces, there are two potential setbacks that must be overcome when setting a policy of ethical interaction. The first set of problems is technical in nature, arising from the particular bounds and limitations of how immaterial spaces of play function. The second set of problems is community-based in nature, arising from the ways in which dispersed digital populations organize themselves, behave, and often, misbehave.

Focusing on the technical issues is best undertaken on a case-by-case basis, as each game product will have different constraints inherent in its design (Reinhard 2015). In this way, the technical concerns of archaeogaming are as individual as each real-world fieldwork proposal, varied as they might be because of environmental conditions and country-specific legal requirements. The community issues related to archaeogaming research, however, can be more generally approached and wider issues of ethical practice addressed.

Researching in a Single-Player Environment

Digital game spaces come in two types, single-player and multiplayer. Single-player games are games in which the player is the only “real” person in the game, and all other “people” encountered are characters programmed by the game’s developers. An example of a single-player game is Super Mario Brothers. Multiplayer games are games in which many “real” people interact with each other within the game. An example of a multiplayer game is League of Legends.

For a researcher, single-player games require considerations of ethical versus unethical action and participation in a pre-determined narrative. Simply put, as the only player in those games, the researcher doesn’t have to consider how she interacts with other people, but instead how she behaves within the narrative and world presented by the game’s designers.

One area of concern with the ethics of archaeogaming is the potential for participation in game-located looting activities. When the practicing archaeologist is researching gaming, does the archaeologist engage in looting artifacts or objects of cultural patrimony, as that looting and collection is part of the predetermined game structure, or does the archaeologist abstain? Abstention means potentially missing access to content that may be gated through participation, or lack of participation, but participation means perpetuating an entertainment narrative of looting as acceptable behavior (Figure 2). While within the material world, the ramifications of looting are well established and understood, the question of whether to loot in a single-player environment where no one will be directly, immediately impacted but the

Figure 1. The artifacts in Tomb Raider are generalized depictions based on real cultural objects, lending an authenticity to Lara Croft’s discoveries that is made more problematic by how, as an archaeologist, she approaches their collection and retention.
researching archaeologist is more complex. Does an individual participating in an in-game looting scenario condone the practice overall? Is it a tacit encouragement to loot outside of the in-game scenario? Is it, even, perhaps a violation of the ethical codes of professional archaeological societies?

Another area of concern relates to interactions with representations of native populations. Is it the ethical responsibility of the researcher to note any occurrences of colonialism, racism, or ethnocentrism in the narrative or game environment? If such issues of design or narrative are present, do archaeologists ignore them in favor of obtaining data through play, or do they choose to refrain from engaging with created worlds that promote the misrepresentation of indigenous peoples (Figure 3)? As with the question of engaging in looting behaviors, there are legal, social, and professional ramifications for archaeologists who perpetuate negative interactions with indigenous peoples in the material world, but how should those relationships be negotiated in digital space, where the indigenous group may not have any recourse to protest their representation?

Single-player games can prompt, through play, questions about appropriate and inappropriate uses of violence, the presence of the objectification of women in modern and historical narratives, and the expression of political ideologies via the gamification of the political process. The field of “serious game studies” has addressed some of these issues, but as applies to players and game developers, not those who research within the game itself (Sicart 2013). If an action taken in a game would be unacceptable to undertake as an action in a traditional field environment, is it ethically permissible to undertake that action when researching in a digital space? Working within a single-player environment doesn’t limit the need for ethical guidelines, it refocuses them on the acts of the researcher in relation to a static environment, an environment in which they can interact but cannot necessarily affect change. The researcher can’t change the narrative or the world of study outside of interactions considered and allowed by the world’s creator, the game developer. This limits what the researcher can do and makes it her choice as to whether or not to participate overall.

**Researching in a Multiplayer Environment**

Working within a multiplayer environment provides a more traditional ethnographic fieldwork experience. Although some of the issues related to interaction with the game world...
are shared between single- and multiplayer games, the addition of real, thinking, feeling, reacting participants puts the researcher more soundly into the realm of practice as we understand it historically, and means that the consequences of one’s actions when interacting with the other participants in the world have to be considered. There is a duty of care inherent in conducting ethnography, and that duty is not necessarily invalidated due to the studied population being contacted via a video game.

Within multiplayer game worlds, player characters often operate in a pseudonymous form, taking on a false name that provides anonymity from their real identity while serving to integrate them into the scene or setting of the game environment. In light of this, is it ethical for the researcher to operate under a game-appropriate pseudonym, or should the researcher publicly represent that they are conducting data collection through the use of their real name? Should they indicate their university or institutional affiliation? How should any of that be conveyed, without ruining the immersion of gameplay for the participants? Virtual ethnographies such as those by Nardi and Boellstorff in *World of Warcraft* and *Second Life*, respectively, opted for total openness with their studied populations, but their work was also primarily about those populations and not about their material culture (Boellstorff et al. 2012). Their studies were also extended and allowed for long periods of immersion and acceptance into community life, which may not be possible (or even desirable) in the context of shorter-term archaeological fieldwork.

How should any players encountered in the course of study be referenced, if at all? Should the need for an interview or interaction with a player character occur, should they be listed via their chosen pseudonym as Sir Bumblefoot32, and that considered an acceptable degree of anonymity, or does that weaken the data collected because it can't be definitively sourced back to a particular real-world individual? Should more anonymity be provided? Should less? We know how to answer these questions when faced with them in fieldwork in Peru or Egypt or Texas, but determining the answers when the country is fictional and exists on a multitude of dispersed servers spread across the United States and Europe is more difficult. This is research that has been considered, but not extensively through the lens of archaeology, which historically requires grounding in physicality.

### Problematic Participants

The final challenge, and one that shouldn't be underestimated, is how to maintain an ethical grounding when interacting with the current climate of gaming culture online. Modeling archaeogaming research after standard methods of participant observation (which necessitates integration of the researcher into the community as a player, member, and observer of the group and its behaviors and norms), though an approach that may seem ideal, is significantly hindered by potential toxic actors within online gaming environments.

Since 2014, video-gaming culture has become bound up, through a movement called GamerGate, with elements of misogyny, white supremacy, and anti-intellectualism (Chess and Shaw 2015). The movement, which purports to be about ethics in video game journalism, functions as an outlet for those who believe that progressive and feminist ideologies are ruining society in general, and gaming in particular. Interacting with the GamerGate movement often results in becoming a target of focused online harassment, which may manifest offline through the practices of doxxing and swatting. Doxxing is the collection of personal information such as one’s phone number, home address, and place of business, with the goal of releasing that information to the wider Internet for use in harassment activities. Swatting, wherein an individual’s private information is obtained through doxxing and used to falsely report critical incidents to emergency services, can be dangerous. In swatting, the goal is to cause the target’s home or business to be raided by police or law enforcement, causing emotional distress and physical harm.

Current gaming communities are not necessarily friendly to academic participants, making ethnographic data collection difficult. Results can be skewed by the introduction of purposely false data provided by anti-academic informants, and some communities regard academic researchers as intruders...
to be ignored or forced out of the gaming space. While there are organizations, such as the Crash Override Network, that are working to combat the harassment that can result from participation with toxic Internet communities, any research undertaken within video games should be considered in light of the potential ramifications of engagement.

Moving Forward
Establishing ethical standards and guidelines of practice isn’t an endeavor that can be one and done. The Internet, considered not only a repository for disembodied data but also as a collection of the actions and desires of individuals and groups, changes with time. Ethical standards need to be determined for immediate work in archaeogaming but also need to be constantly reevaluated as the culture of Internet behavior and interactions changes. As we look at research concerning the Internet conducted in 1995, or even 2005, it’s obvious how much the environment has been altered and changed, especially with the advent of social media (Perry and Beale 2015). Trying to apply digital ethical standards from the past to the present isn’t viable, and neither will applying the standards of 2015 be necessarily applicable in 2025. This isn’t an area for complacency but one of constant review and vigilance.

As the subfield progresses, and the canon of published research focused specifically on archaeology within video games grows, the discipline would do well to look to other, parallel fields to compare standards of ethical practice and methods of obtaining data with respect for the populations involved. The distinction between archaeology and anthropology is amorphous and often argued, but looking to how cultural anthropologists conduct research online, as well as to how sociologists and scholars of game design comport themselves, gives us comparative standards of practice to examine. They may not be looking for the same data, but they’re increasingly looking in the same places, and where they are now is where we need to go . . . ethically, and responsibly.

Acknowledgments
Thank you to Colleen Morgan for inclusion in this issue, to the users of the #archaeogaming hashtag, and to the players and archaeologists whose many conversations encouraged this discussion.

References Cited
The past is a foreign country: they do things differently there,” wrote L. P. Hartley (2002 [1953]) in the opening lines of his novel The Go-Between. For me, the past has always been fascinating, and so the multiplicity of ways in which people connect with history in one way or another. From the reading of historical fiction, the watching of films based on past events, or the engagement and participation in highly demanding forms of reenactment, a surprisingly large number of people find pleasure and satisfaction in traveling back in time. For them, “the past is not only present,” as Rosenzweig and Thelen noted, “it is part of the present” (1999:178). As an avid gamer, and professional game developer, my interest in the past gravitated naturally to the study of the relationships between all these forms of historical engagement and digital games, arguably one of the most important media in the current cultural landscape.

For the last four years, I have been directing this interest to Ph.D. research investigating the dynamic intersections between history, learning, and computer games. Defined as practice-based research, this study builds up from the development of a historical game in which, giving myself complete freedom to experiment and put to the test different assumptions about historical gameplay, has become a useful tool to investigate the ways in which digital game technologies can be used to foster the meaningful and critical understanding of the past.

Following nothing more than my personal interest and intuition, I decided to situate my game in the early medieval period of Anglo-Saxon England. This turbulent moment of British history has always been interesting to me, as it was the time in which this land, although on the brink of being colonized by Danish invaders, became a single unified state with an identity that lasts to this day. Despite being very interested in this time period, I had to recognize that my knowledge of medieval British history was sketchy at best, so a good part of my energies at the beginning of the research were devoted to immersing myself in the complexities of the Anglo-Saxon world. To become myself an informed traveler in this particular period, I selected and studied a wide selection of historical sources and materials. These were not restricted to academic texts but also considered a heterogeneous collection of historical engagements, the type of which Katie King (2008:12) encapsulates as “pastpresents,” forms “in which pasts and presents very literally mutually construct each other.” Among these, I thoroughly enjoyed the research of heritage sites, experimental archaeological reconstructions, reenactment groups, television series such as the Irish-Canadian production Vikings, and the excellent collection of Bernard Cornwell’s books The Warrior Chronicles, very recently turned into a television series by BBC America.

A key part of any design process is the writing of a program, loosely defined as a “wish list” containing a set of criteria on which the design is based, and by which it will be evaluated. In this case, the design program had to consider at least four interdependent and interconnected in-game systems: representation, simulation, narrative, and play. As representation, the historical game had to allow players to visit the Anglo-Saxon world, granting the exploration of representative buildings, the meaningful interaction with believable characters, and the manipulation of objects and tools of cultural significance. As simulation, the world needed to be augmented with procedural algorithms communicating “how things worked” at the time. Non-player agents had to exhibit believable behaviors, communicating social and cultural patterns of interaction with other agents and the environment and reflecting the complex layers of meaning associated with the struggle of surviving in the harsh living conditions of medieval time. As narrative, the game had to convey factual information about the historical period while also letting players participate in the construction of a nonlinear storyline. Finally, and perhaps most importantly, the game needed to work as a game. It needed to be engaging and fun, setting into motion all the mechanisms that make games intrinsically motivating.
Having an initial list with the components that would form the basis of the player experience, the task that followed consisted of devising initial ideas—gameplay and game mechanics—that could make it concrete in a digital artifact. At this stage, the temptation of following existent industry-led game genres was very strong but needed to be restrained. A review of literature quickly shows how researchers facing a similar endeavor very often fall into the making of direct connections between existent commercial games and learning or epistemological approaches to history, without taking the time to consider historical gameplay as a new design space. Certainly, the analysis of games that already have been built is always useful, but in order to understand the “wicked” problem of designing historical gameplay, a different approach was needed. As a design process, the development of historical gameplay required experimenting with new ideas, establishing a productive dialogue between theory and praxis.

Admittedly, a project of this nature would have been impossible only a decade ago, where the building of a functional game, even in a prototype state, would have been an almost impossible task for a single developer. Fortunately, the “democratization” of game development technology, a process led by game engine providers such as Unity, Unreal, and Crytek, has moved game development to a point in which even a single developer, without the extensive budget, knowledge, or specialization from big 200-team studios can quickly construct games exhibiting many of the state-of-the-art technologies available in top commercial titles. For this project, I chose to work with the popular Unity game engine, a platform with which I have been working since its early versions were released. In my opinion, this engine and editor offer important advantages when trying to find creative solutions to complex design problems. Within the engine, every game entity can be malleably shaped by the addition of components, very much like adding blocks of new functionality as playing with Lego bricks. This component-based system greatly facilitates quickly implementing and evaluating new design ideas, introducing changes, or removing functionality without seriously compromising other systems already working in the game.
As the project progressed, a sequence of different prototypes was developed and evaluated. This process led not only to concrete “products” but also to the conception of provisional theories about historical gameplay. In this article, I would like to center my attention to one particular theory: the spatial perception of the game world and its relation to different historical conceptualizations.

The perception of space in video games is interfaced by the metaphor of the camera, which at a functional level dictates how the player sees the world and what he/she can do. In first-person shooters (FPS), for example, the camera is positioned at the player’s head, remediating many of the cinematic conventions from the subjective shot. Moving the camera slightly backward, it becomes a third-person perspective, a point of perception that allows for a different type of embodiment and gameplay interaction. As the camera moves far away from the character and higher in altitude, the perspective becomes omnipresent, allowing the player to de-center his attention from the character to the game world. Interestingly, these shifts in distance, scope, and spatial perception can be productively associated with two separate historical epistemologies, also defined as a function of their distance to the object of study: micro- and macrohistory.
Microhistory, defined as “the intense historical investigation of a small area” (Szőjártó 2002:209) studies a particular historical period with a high level of detail, many times centering the attention into a single person, place, or event. It concentrates on the personal experiences of everyday life, with the conviction that these small narratives provide a good standpoint to look into the broader sociocultural structures of past societies. Within the game, the player would assume the role of a particular Anglo-Saxon individual—a powerful ealdorman, ceorl, or even a slave—looking at the world through his eyes and experiencing his everyday life, problems, and limitations. As the camera moves further away from the character, the game allows the player to connect with a macrohistorical perspective. At this level, the emphasis is less on personal narratives and more on ideas of space, size, and distance in historical interpretation, allowing the player to explore the multiple relationships of interdependency between agents, resources, and game geography. The game offers multiple instances to make decisions, which reflect in long-term effects on the environment, resources, and larger social structures (Figure 1).

Within the Anglo-Saxon game prototype, both instances of play are implemented through nested simulations, an approach that has been used in physical war games (Sabin 2012) but to my knowledge not yet sufficiently explored in digital historical games. Digital implementations of this pattern consist of a series of relatively independent but interconnected simulations running historical processes at different scales. In more concrete terms, a first simulation runs an immersive, navigable third-person interface, which allows the player to walk around and interact with non-player agents and other objects from the environment. The player experience focuses on surviving the harsh life conditions of early medieval England, something that can only be achieved by establishing a successful, self-sustainable village. To do this, the player needs to interact with a second level of simulation, which drives the point of perception to the perspective of the entire game world. This system is modeled in more abstract terms through a hex grid, in which each hex represents a specific patch of land and contains detailed information about the village’s physical environment. Although separate, the interaction at both the immersive and village levels is necessary to achieve the game goals and any change in either the upper or lower simulation level have a substantial effect on the other (Figure 2).

Although still not finished, the game prototype currently is at a state in which most of the systems responsible for interacting at different scales can be played. Looking ahead to the project’s plan, development will continue in iterative cycles of design, implementation, and evaluation. Through this process, my goal is to validate the gameplay ideas that allow users to interact and create meaningful links between with micro and macro perspectives, through the interplay between narrative and simulation systems and different levels of representation. Hopefully, the research project will yield design patterns and design principles that could be implemented in both historical and nonhistorical games, expanding to related domains of application, such as virtual reconstructions, museums, exhibitions, and formal learning contexts.

References Cited
Brewer, John

Hartley, Leslie

King, Katie

Rosenzweig, Roy, and Thelen, David

Sabin, Philip

Szőjártó, István
Robert “Bob” Porter Powers was born in 1952 in Laguna Beach, California, and passed away January 2, 2016, in Santa Fe, New Mexico. It was his mother who suggested that he enter the field of archaeology. As a high school graduate, Bob was more interested in taking his partly functional jeep on a trip to South America than a college education. His mother bargained with him: if he completed a year in archaeology (she noted his affinity for dirt) at the University of Arizona, he could take his trip. The trip was started with two friends, but the vehicle failed; Bob, however, eventually earned an M.A. in archaeology.

Bob’s first fieldwork was with the School of American Research crew excavating Arroyo Hondo Pueblo. His career with the National Park Service (NPS) began at Chaco Canyon National Monument in 1974, where he took part in the excavation of Pueblo Alto, among other sites, and later led the Chaco outlier survey. He is remembered for his commitment to the Chaco Project, which extended throughout his career as he authored, oversaw, or enabled numerous projects by park service colleagues, students, and other professionals, including a final synthesis of Chaco Project contributions.

In the mid-1980s, he began work as project director on the Bandelier Archaeological Survey, a five-year, 14,000-acre effort reported in technical papers, bachelor’s and master’s theses, and dissertations, and concluded with the award-winning popular book The Peopling of Bandelier: New Insights from the Archaeology of the Pajarito Plateau, in collaboration with the School for Advanced Research and David Grant Noble. In the late 1990s, Bob returned to school for his M.A. at the University of New Mexico (2000) and pursued a doctoral degree there until 2014. His planned dissertation examined agricultural strategies, population mobility, and village formation in Bandelier National Monument.

As an archaeologist for the Intermountain Region of the NPS, Bob also oversaw major inventory projects at Pecos, Natural Bridges, Bryce Canyon, and El Malpais national monuments and at Amistad National Recreation Area. The people who worked with Bob in the field or in the office recall the high-functioning teams of people he created, his intellectual and personal generosity as a manager, and his remarkable work ethic.

Both as a NPS employee and as a volunteer, Bob was a tireless advocate for New Mexico archaeology. He worked with the Bureau of Land Management to protect archaeological sites in the Galisteo Basin and served on the Society for American Archaeology’s task force, working to protect the sites and traditional cultural properties associated with the Greater Chaco Landscape.

Bob was a regular at the annual Pecos Conference and helped organize the 1989 meeting at Bandelier. In 2013, noting the increasingly gray heads of fellow attendees, Bob came up with the idea of offering a prize for the best paper presented by a young archaeologist. Originally named in honor of Linda Cordell, a dear friend of Bob and his wife, Willow, this year it has been renamed the Cordell/Powers Prize. In the three years since its inception, Pecos attendees have marveled at the dramatic effect Bob’s idea has had on the quality of papers presented and at the enthusiastic mob of young people who now attend.

Bob is survived by his wife, Willow, an anthropologist and archivist, whom he met at Chaco Canyon and married in 1985. Their rambling adobe house in Santa Fe is a testament to Bob’s enormous talent in every sort of craft; the wide circle of friends entertained there is a testament to their enjoyment of and curiosity about the world around them.

Thanks to Willow Roberts Powers, Paul Reed, David Grant Noble, Jon Sandor, and Signa Larralde.

—Sarah Herr, Desert Archaeology Inc., and Catherine M. Cameron, University of Colorado, Boulder
Douglas W. Schwartz, 86, died on June 29, 2016, in Santa Fe, New Mexico. Doug was president of SAA from 1973 to 1974, received the SAA’s Distinguished Service Award in 1991, and received the American Anthropological Association’s Distinguished Service Award in 1992. He was an archaeologist and a champion of anthropological scholarship, but he was also a magician. Doug began practicing magic as a boy in Kentucky, specializing in sleights of hand, and he never quite abandoned this early career, performing at various Santa Fe functions under the stage name “Dr. Magic.” Dr. Magic seems right for Doug Schwartz, because as the president of the School of American Research (now School for Advanced Research [SAR]) from 1967 to 2001, he conjured up a place that was very real and yet fostered magical intellectual work.

Schwartz received his doctorate from Yale in 1955 and was a faculty member at the University of Kentucky when he was selected to direct SAR, a keystone research center for southwestern anthropology in the first half of the twentieth century that that been reduced to a one-room office without a clear purpose in the 1960s. From that nadir, Doug built a unique and widely admired (and imitated) campus through astute fund-raising, prescient planning, and a philosophical commitment to the idea that scholarship flourishes in an environment that combines opportunities for contemplation with the power of collective interaction. SAR matured through the latter half of the twentieth century from the initial gift of a private residence, adding residential housing for scholars, an in-house press, and a world-class curatorial center for Native American arts. Now a coveted and prestigious destination for scholars, it is difficult to imagine that SAR was almost an historical footnote.

Two of Doug’s first initiatives provided the backbone for this transformation. The Advanced Seminar Program brought groups of scholars to the SAR campus for a week of intensive interaction and uninterrupted collaborative work in the Seminar House, while the Residential Scholar Program provided fellowships for pre-doctoral and senior scholars. It is difficult to adequately calculate the impact these two programs have had for archaeology, with almost 100 archaeological seminars and dozens of scholars, but from these experiences have come some of the field’s seminal contributions (Elliott 1987; Scarborough 2005).

Schwartz directed two major archaeological field programs at SAR. The first was a systematic survey and excavation in the Grand Canyon between 1967 and 1970, a collaborative effort with the National Park Service that produced the foundation for current interpretive models of Grand Canyon prehistory. Then, from 1971 to 1974, he directed a major excavation at Arroyo Hondo Pueblo, southeast of Santa Fe. Both projects were extensively documented in monographs, dissertations, and professional and popular articles. In the months before Doug died, he organized and chaired a series of seminar discussions around the continuing archaeological legacy of the Arroyo Hondo research.

Doug’s guidance at SAR created an organization to enhance anthropological understanding of the human story. A conjurer’s gift is making the difficult seem easy, Schwartz’s remarkable success at SAR belied an extraordinary amount of hard work, a rare talent for raising private funds, and the skill to manage a complex scholarly enterprise. It may be one of archaeology’s best ever magic acts.

References Cited
Elliott, Malinda

—W. H. Wills, Department of Anthropology, University of New Mexico

IN MEMORIAM

DOUGLAS W. SCHWARTZ
1929–2016
### Society for American Archaeology

#### Statements of Financial Position

**December 31, 2015 and 2014**

#### Assets

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$2,774,712</td>
<td>$2,538,110</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>16,152</td>
<td>18,724</td>
</tr>
<tr>
<td>Accrued interest receivable</td>
<td>2,200</td>
<td>1,445</td>
</tr>
<tr>
<td>Prepaid expenses, current portion</td>
<td>92,474</td>
<td>87,637</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>2,885,538</td>
<td>2,645,916</td>
</tr>
<tr>
<td>Prepaid expenses, net of current portion</td>
<td>16,629</td>
<td>8,932</td>
</tr>
<tr>
<td>Investments</td>
<td>4,920,993</td>
<td>4,898,599</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>94,385</td>
<td>92,440</td>
</tr>
<tr>
<td>Deposits</td>
<td>11,031</td>
<td>11,031</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$7,928,576</td>
<td>$7,656,918</td>
</tr>
</tbody>
</table>

#### Liabilities and Net Assets

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$140,336</td>
<td>$75,176</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership dues, current portion</td>
<td>482,832</td>
<td>429,394</td>
</tr>
<tr>
<td>Subscriptions</td>
<td>141,277</td>
<td>125,746</td>
</tr>
<tr>
<td>Meetings and other</td>
<td>506,399</td>
<td>583,080</td>
</tr>
<tr>
<td><strong>Total deferred revenue</strong></td>
<td>1,130,508</td>
<td>1,138,220</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>1,270,844</td>
<td>1,213,396</td>
</tr>
<tr>
<td><strong>Other liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred lease liability</td>
<td>64,812</td>
<td>63,161</td>
</tr>
<tr>
<td>Deferred membership dues, net of current portion</td>
<td>20,279</td>
<td>22,558</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>1,355,935</td>
<td>1,299,115</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undesignated</td>
<td>3,049,904</td>
<td>2,851,180</td>
</tr>
<tr>
<td>Board-designated</td>
<td>721,695</td>
<td>705,489</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,771,599</td>
<td>3,556,669</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td>6,572,641</td>
<td>6,357,803</td>
</tr>
<tr>
<td><strong>Total assets and liabilities</strong></td>
<td>$7,928,576</td>
<td>$7,656,918</td>
</tr>
</tbody>
</table>
Society for American Archaeology

Statements of Activities and Change in Net Assets
Years Ended December 31, 2015 and 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue and support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership dues</td>
<td>$ 907,114</td>
<td></td>
<td>$ -</td>
<td></td>
<td>$ -</td>
<td></td>
<td>$ 907,114</td>
<td></td>
<td>$ 835,098</td>
<td></td>
<td>$ -</td>
<td></td>
<td>$ -</td>
<td></td>
<td>$ 835,098</td>
</tr>
<tr>
<td>Annual meeting</td>
<td>871,539</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>871,539</td>
<td></td>
<td>731,852</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>731,852</td>
</tr>
<tr>
<td>Publications</td>
<td>281,160</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>281,160</td>
<td></td>
<td>270,644</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>270,644</td>
</tr>
<tr>
<td>Public programs and services</td>
<td>24,872</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>24,872</td>
<td></td>
<td>27,444</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>27,444</td>
</tr>
<tr>
<td>Organization and administration</td>
<td>76,993</td>
<td>726</td>
<td>26,163</td>
<td></td>
<td>103,882</td>
<td></td>
<td>152,762</td>
<td>49,405</td>
<td>35,349</td>
<td></td>
<td>238,516</td>
<td></td>
<td>-</td>
<td></td>
<td>238,516</td>
</tr>
<tr>
<td>Member programs and services</td>
<td>32,991</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>32,991</td>
<td></td>
<td>3,365</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>3,365</td>
</tr>
<tr>
<td>Awards</td>
<td>34,169</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>34,169</td>
<td></td>
<td>5,583</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>5,583</td>
</tr>
<tr>
<td>Loss on uncollectible pledges receivable</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td>(8,390)</td>
<td>(8,390)</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Net assets released from restriction – Public programs and services</td>
<td>26,981</td>
<td>(26,981)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25,065</td>
<td>(25,065)</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Total revenue and support</td>
<td>2,255,819</td>
<td>(26,255)</td>
<td>26,163</td>
<td></td>
<td>2,255,727</td>
<td></td>
<td>2,052,813</td>
<td></td>
<td>24,340</td>
<td></td>
<td>26,959</td>
<td></td>
<td>1,104,112</td>
<td></td>
<td>1,104,112</td>
</tr>
<tr>
<td>Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership</td>
<td>55,251</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>55,251</td>
<td></td>
<td>48,095</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>48,095</td>
</tr>
<tr>
<td>Annual meeting</td>
<td>514,224</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>514,224</td>
<td></td>
<td>404,296</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>404,296</td>
</tr>
<tr>
<td>Publications</td>
<td>308,224</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>308,224</td>
<td></td>
<td>331,235</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>331,235</td>
</tr>
<tr>
<td>Public programs and services</td>
<td>333,501</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>333,501</td>
<td></td>
<td>261,982</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>261,982</td>
</tr>
<tr>
<td>Member programs and services</td>
<td>81,568</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>81,568</td>
<td></td>
<td>58,197</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>58,197</td>
</tr>
<tr>
<td>Awards</td>
<td>32,500</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>32,500</td>
<td></td>
<td>8,770</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>8,770</td>
</tr>
<tr>
<td>Supporting services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management and general</td>
<td>688,732</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>688,732</td>
<td></td>
<td>640,726</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>640,726</td>
</tr>
<tr>
<td>Membership development</td>
<td>26,889</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>26,889</td>
<td></td>
<td>40,146</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>40,146</td>
</tr>
<tr>
<td></td>
<td>715,621</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>715,621</td>
<td></td>
<td>680,871</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>680,871</td>
</tr>
<tr>
<td>Total expenses</td>
<td>2,040,889</td>
<td>(26,255)</td>
<td>26,163</td>
<td></td>
<td>2,040,889</td>
<td></td>
<td>1,815,446</td>
<td></td>
<td>24,340</td>
<td></td>
<td>26,959</td>
<td></td>
<td>1,104,112</td>
<td></td>
<td>1,815,446</td>
</tr>
<tr>
<td>Charge in net assets</td>
<td>214,930</td>
<td>(26,255)</td>
<td>26,163</td>
<td></td>
<td>214,838</td>
<td></td>
<td>237,367</td>
<td>24,340</td>
<td>26,959</td>
<td></td>
<td>288,666</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Net assets, beginning of year</td>
<td>3,556,669</td>
<td>387,660</td>
<td>2,413,474</td>
<td></td>
<td>6,357,803</td>
<td></td>
<td>3,319,302</td>
<td>363,320</td>
<td>2,386,515</td>
<td></td>
<td>6,069,137</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Net assets, end of year</td>
<td>$ 3,771,599</td>
<td>361,405</td>
<td>$ 2,439,637</td>
<td></td>
<td>$ 6,572,641</td>
<td></td>
<td>$ 3,556,669</td>
<td>387,660</td>
<td>$ 2,413,474</td>
<td></td>
<td>$ 6,357,803</td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
OUR PREMISE IS SIMPLE:
the stronger your business, the greater your chance of achieving your heritage goals.

We bring heritage-specific business consulting, data, and training to strengthen archaeological organizations like yours.

CONTACT US
to increase your organization’s value, sustainability, and heritage impact.

Australia 2 6188 5507
Canada (613) 518-8062
United Kingdom 0203 807 2626
United States (415) 466-2980
Email: inquiry@heritagebusiness.org
Web: heritagebusiness.org
Twitter: @HeritageBiz
Coupland, Gary, Terence Clark, and Amanda Palmer

Economist Intelligence Unit

Harris, Jillian, Kirsti Bowie, Stephen Daniel, Alex Maass, and Andrew Martindale

Lepofsky, Dana, Nicole F. Smith, Nathan Cardinal, John Harper, Mary Morris, Gitla (Elroy White), Randy Bouchard, Dorothy I. D. Kennedy, Anne K. Salomon, Michelle Puckett, and Kirsten Rowell

Lyons, Natasha, David M. Schaepe, Kate Hennessy, Michael Blake, Clarence Pennier, John R. Welch, Andy Phillips, Betty Charlie, Clifford Hall, Lucille Hall, Aynur Kadir, Alicia Point, Vi Pennier, Reginald Phillips, Reese Muntean,Johnny Williams Jr., John Williams Sr., Joseph Chapman, and Colin Pennier

Martindale, Andrew

Martindale, Andrew, and George P. Nicholas


Wilson, Kory, and Jane Henderson
## CALENDAR

### 2016

**November 10**
Online Seminar: Working with Metal Detectorists: Citizen Science at Historic Montpelier and Engaging a New Constituency (3pm–4pm ET)

**November 15**
Online Seminar: Yes, You CAN Do That! Creative Mitigation and Section 106 Undertakings (2pm–4pm ET)
SAA Annual Meeting: Nonmember Participant Join Deadline

**December 1**
Online Seminar: Tribal Consultation Basics (2pm–4pm ET)

**December 7**
Knowledge Series Online Lecture: Campus Archaeology Programs: Why and How to Create Them (3pm–4pm EST)

**December 15**
SAA Annual Meeting: Advance Registration Opens

### 2017

**December 15**
Deadline to register a team for the 13th Annual SAA Ethics Bowl at the Annual Meeting in Vancouver, BC, Canada. E-mail saaethicsbowl@gmail.com to register.

### 2018

**March 1**
SAA Annual Meeting: Advance Registration Closes

**March 29–April 2**
SAA’s 82nd Annual Meeting in Vancouver, BC, Canada

**April 18**
Online Seminar: Introduction to Archaeological Damage Assessment (2pm–4pm ET)

**April 26–29**
Tercera Conferencia Intercontinental

**May 4**
Online Seminar: Archaeological Curation for the Twenty-First Century (2pm–4pm ET)

---

## NEWS & NOTES

The Geoarchaeology Interest Group (GIG) invites students attending the 2017 meeting to “ask the experts” in Vancouver. Students at all levels are welcome to ask questions at its Friday evening interest group meeting. Serious feedback will be provided on any topic, but thesis and dissertation themes are especially encouraged. Up to three PowerPoint slides can accompany the questions.

To learn more about SAA’s Online Seminar Series and lectures, visit www.saa.org and click on the SAA Online Seminar Series banner.
SAVE THE DATE!
MARCH 29–APRIL 2, 2017

Visit www.saa.org for details

SOCIETY FOR AMERICAN ARCHAEOLOGY
82ND ANNUAL MEETING
VANCOUVER, BRITISH COLUMBIA, CANADA
VISIT WWW.SAA.ORG FOR DETAILS
13th Annual SAA ETHICS BOWL
March 30, 2017
AT THE 82nd ANNUAL MEETING OF
THE SOCIETY FOR AMERICAN ARCHAEOLOGY
Vancouver, BC, Canada

As members of the SAA, archaeologists agree to uphold the Principles of Archaeological Ethics, but what do stewardship, accountability, and preservation look like in the real world? Interested?

Each year, teams of 3–5 graduate and undergraduate students engage in debate about solutions to real-world ethical dilemmas faced by archaeologists, academics, and curators. Solutions to these dilemmas are judged on their application of the SAA’s Principles of Archaeological Ethics, personal experience, legal precedents, and laws.

Are you up for the challenge?

Register a team by December 15, 2016 at SAAETHICSBOWL@GMAIL.COM