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The Real World of Teaching in Hadrian's Virtual Villa

Lynne A Kvapil, *Butler University*

FORUM

THE REAL WORLD BENEFITS OF TEACHING AND LEARNING IN HADRIAN'S VIRTUAL VILLA*

Abstract: A virtual 3D simulation of Hadrian's Imperial Villa at Tivoli, created as part of the Hadrian's Villa Project, was the centerpiece of a course module that combined Problem-based Learning with virtual world technology. The module asked students to use different learning environments, like the virtual villa, to solve ancient world problems focused on the life of the emperor Hadrian. The benefits and challenges of combining PBL with virtual world technology in the classroom are discussed here. Sample lesson plans from the course are also included.

Pedagogy in the humanities has been for several years shifting away from a lecture format and increasingly embracing new styles of teaching and learning, including strategies like team-based learning, experiential learning or flipped classrooms. The stated goal of all these teaching methods is to engage and activate student learners while demonstrating that humanities courses, including those in the fields of classics, ancient history or classical archaeology, teach beneficial skills to students who leave college and enter a demanding and sometimes harsh job market. In 2009, the author joined a collaborative project with Bernard Frischer aimed at combining a teaching and learning methodology called Problem-based Learning (PBL) with the use of 3D virtual technology to teach Classics-related courses. Over four years this collaboration resulted in the development of a course module centered on the world of the emperor Hadrian. A study on the effectiveness of using PBL in combination with virtual world technology to increase collaboration skills and knowledge retention was carried out in conjunction with the classes. The results of the study and the wisdom gained throughout the design and implementation process are encouraging signs that pedagogical progress is worth the investment

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of time and effort and can alter the perspective not only of students but also those who remain skeptical of short-lived trends and fads in teaching.

What is Problem-Based Learning?

PBL is a learner-centered class, course unit or project that, as the name suggests, asks students to seek knowledge and use that knowledge to devise a solution to a problem.[1] Problems are meant to be ill-structured or messy with no single or obvious solution, and solutions should be equally complex.[2] The objective of PBL is to transform students into motivated learners whose solutions may fail, flounder, meet with partial success or work very well. Key learning outcomes also include improvements in communication, collaboration with peers and the ability to make connections between like and unlike pieces of information.[3] The role of instructors or professors is also transformed. Rather than disseminating information, teachers take on the role of knowledgeable guides or facilitators, in the problem-solving process.[4]

Problem-based learning was pioneered in the field of medicine,[5] and, in the realm of higher education, has spread to law, business, economics, engineering, architecture and many other disciplines; but, the use of PBL tends to prevail in fields that have clear, real-world applications for which simulated real-world problems can provide training and preparation.[6] It is less often used for the courses in the humanities.[7] Because applying PBL to courses related to Classics seemed rare, the author decided to try this teaching and learning strategy in a

[1] The bibliography for PBL is extensive, but these sources are both fundamental, useful and will enable access to the wider bibliography. Barrows (1986); Duch, Groh and Allen (2001); Torp and Sage (2002); Hmelo-Silver (2004); Amador, Miles and Peters (2006); Savery (2006); Stix and Hrbek (2006); Walker *et al.* (2015). Important online resources include the Problem-based Learning Initiative, housed at the Southern Illinois University School of Medicine (http://www.siumed.edu/dme/PBL-Home.html), and the Institute for Transforming Teaching and Learning at the University of Delaware (http://www.udel.edu/inst/). All links were accessed August 28, 2017.

[2] Duch (2001), for example, notes that well-written PBL problems should motivate students to think deeply in order to devise a complex solution and should require students to build on previously gained knowledge.

[3] E.g., Torp and Sage (2002) 18; Gijbels *et al.* (2005); Ertmer and Glazewski (2015).

[4] E.g., Torp and Sage (2002) 68–83; Hmelo-Silver and Barrows (2006); In PBL scholarship, teachers are often referred to as tutors.

[5] Barrows and Tamblyn (1980); Barrows (2000); Savin-Baden and Major (2004).

[6] Boud and Feletti (1991), for example, provides examples of articles devoted to PBL across all these disciplines.

[7] Some published exceptions include Constantino (2002) and Brush and Saye (2014).

Mediterranean archaeology course that culminated in a PBL project. The final project of the course simulated the real-world problem of funding archaeological research by asking students to write grant proposals that required research spanning multiple disciplines. Reflections on the successes and failures of the project were published here in the *CJ Forum*.[8] After reading the article, Frischer proposed a collaborative project in which a PBL course would accompany a 3D virtual simulation of Hadrian's villa. An authentic learning environment, even though it may be simulated or virtual, is a desirable element in PBL problem design because it echoes real-world situations, immerses students in a particular context and keeps them motivated to learn.[9] In this case, the virtual world of Hadrian's villa would provide an authentic ancient world where real problems of Imperial Rome could be played out. The pedagogical question driving the project thus became determining whether the combination of PBL and virtual technology could increase student learning in measurable ways by helping students practice real-world skills while creating solutions to ancient-world problems.

Hadrian's Virtual Villa

Bernard Frischer had been working for several years to transform what modern visitors see as the ruins of the ancient world when he first began organizing the construction of Hadrian's villa.[10] The result of his work is a 3D simulation of Hadrian's imperial villa, which was created in AutoCAD and then imported to the Unity 3 game engine so that the villa world could be populated with avatars and non-player characters (NPCs). In the villa simulation, human-driven avatars enter Hadrian's villa the way an ancient visitor would have. They walk the villa grounds at will and experience the space as it would have existed in the time of Hadrian. The type of avatar chosen shapes the virtual experience. Options for avatars at the virtual villa range from actual historical characters, such as Hadrian himself, his wife Sabina and his friend Antinous, to unnamed characters, like slaves, attendants or friends of the emperor. The clothing of each avatar was carefully researched so that they would appear as historically accurate as possible given the rank and occupation of the character. The avatars are even equipped with gestures for use during conversation or actions like stabbing or crouching for scenarios like assassination plots in which the life of the emperor might be at

[8] Kvapil (2009).

[9] Duch (2001); Hung (2006); Parson and Bignell (2011).

[10] Frischer is well known in this regard for his work on the Rome Reborn project (http://romereborn.frischerconsulting.com).

risk. Most NPCs blend into the background not unlike the way many of the Roman slaves and staff at the villa would have done, giving the simulation an added sense of realism, as do sounds like the chirping of birds and splashing of water in fountains; others demonstrate the use of certain spaces, like two gladiators who spar in the villa's amphitheater. A final, added bonus of the simulation is the chat function, which gives players the ability to communicate with other players exploring the villa, whether they be in different rooms or different states.

The ultimate purpose of the villa simulation was to immerse students in the ancient world of the emperor Hadrian. In order to accomplish this, Frischer envisioned a course in which students who populated the villa would learn about topics as broad as Roman history, art history and archaeology and as specific as Hadrian's approach to the office of emperor or his personal aesthetic. Because PBL seemed to have not only the capacity to allow students to cover this broad intellectual territory but also seemed like it would work well with the immersive 3D environment, Frischer decided that it should be the guiding pedagogical strategy for the course module.

Making Problems for Hadrian

The planning and design stage for any PBL course is focused on the labor-intensive process of problem creation, resource gathering and assessment design. In the case of this project, it was also necessary to gather data relating to the question of the efficacy of using PBL in the virtual world. The course creation process began with the development of a series of ancient-world problems relating to Hadrian, his reign and life at the villa.[11] Each problem was focused on a broad question. How would Hadrian's staff manage a visit by the entire Roman Senate? Should the emperor approve a portrait statue to be erected in Ostia shortly after becoming emperor? What should this statue look like, and who should pay for it? The prompt for each problem consisted of a narrative explanation, a set of learning goals to guide research,[12] guidelines for the presentation of solutions, deadlines for assessment of each activity and a list of

[11] Duch (2001) 50–2.

[12] Some practitioners of PBL believe that learning goals should not be included in the prompt distributed to students (Hmelo-Silver, pers. comm). Others believe that they should be made transparent so that students fully understand the course expectations (Duch and Groh (2001)). For this course, learning goals were included on prompts given to students as a means of guiding student research and ensuring students could study for the quizzes that accompanied each activity.

print and digital resources.[13] The narrative for each prompt was imbued with details that enhanced the feeling of realism and antiquity.[14] Historical characters who would have inhabited the villa, such as Aelius Alcibiades, the emperor's *cubicularius*, play a prominent role in several of the problems. The city of Ostia, which served as an urban foil to the rural retreat and microcosm of the imperial villa, also figured heavily in the activity prompts. Characters like *duovir* P. Aufidius Fortis and an embassy of magistrates attempting to win Hadrian's favor appear regularly and add to the authentic feel of the problems.

In the plan for implementation in the classroom, students would be divided into small groups to explore a variety of solutions for each problem, from which they would choose the option they deemed best. In order to make a comparison between learning in a virtual environment and a typical classroom environment, students were to present their solutions either in the 3D learning environment of the villa or in 2D using presentation software like Powerpoint or Prezi. The intent was to show that learning about Rome in the virtual world was more effective than through the use of slide presentations. To illustrate this, the activity called *Bathing Bureaucrats*, in which students are asked to outline a plan for the bathing and entertainment of the entire Roman senate when they visited the villa, would be presented by students speaking from slides in the 2D environment. Conversely, *Wining and Dining the VIPs* and *Home Town Improvements*, would be presented entirely in the virtual world.

The final activity, *Home Town Improvements*, is the most complex of those to be presented in-world. For this activity, which involves a visit from the Ostian embassy petitioning the emperor for funds to improve the city, a number of small groups are required to collaborate with other groups. One group plays the *duovir* and his attendants. Their problem is to determine what sort of improvement the city of Ostia needs and how to persuade Hadrian to support their cause. Another group is tasked with effectively leading the visitors through the villa, which requires navigation through the public areas of the villa, demonstrating the glories of Hadrian's architectural achievements and stalling the visitors to give the emperor time to send out spies. The spies comprise the third group, who are to find out the Ostian's request in advance so that the emperor and his advisors, the fourth and final group, might devise an appropriate response to the request. The presentation of the solutions had to be carefully planned so that all groups could present simultaneously in the villa simulation.

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[13] See appendix. The deadlines have been removed since specific dates changed each semester.

[14] Prompts for each activity mentioned here are included as appendices at the end of this article.

Initially, ten activities with presentation in 2D and 3D environments were to be completed by all student research groups, but eventually this number was reduced to five. Students had a week to conduct research and formulate a solution before presenting a slide show in the guise of historical characters or as avatars in the virtual villa. Diverse digital resources to get students started in their research were gathered and made readily available. Among them was an interactive plan of the villa, assembled by Frischer, with images of the archaeological site, interviews with villa experts and reconstructions of individual rooms and buildings.[15] Eventually, this site was linked directly to the villa simulation. With the prompt in hand, students would have a clearly structured assignment[16] and nearly all the resources necessary to complete the activity at their fingertips.

The hypothesis was that students would perform better on quizzes testing knowledge acquisition after virtual world presentations than they would on quizzes following slide show presentations, and that, in presentations carried out in-world, they would demonstrate better communication and collaboration within and between the groups. So, determining measures of assessment was integral to the design of the course. Besides assessing specific aspects of student learning, it was also important to the project to try to measure the impact that the course had on students who were learning about life in Imperial Rome. Assessing student learning and quantifying impact are notoriously difficult; and so, initially the plan was to cast a wide net and collect as much quantitative and qualitative data as possible. The result was that the assessment component of the course design, particularly in its first iteration, was overly complex and, therefore, occasioned the most changes during the time the course was offered. In the original course design, students were asked to critique and comment on the solutions of each group according to five criteria—whether there was evidence that several possible solutions were considered before a single solution was chosen, the overall complexity of the chosen solution, the responsible use of a wide-variety of good source material, to what extent students built on concepts already learned in class and how well each group used the assigned 2D or 3D technology. Each activity ended with a short quiz to determine whether students met the basic components of the learning goals required for each activity. Students were also asked to respond to questions asked on a course blog and to

[15] http://vwhl.clas.virginia.edu/villa.

[16] Sparrow, Blevins and Brunner (2011) 57.

complete exit interviews and a post-course survey at the end of the class.[17] All this was in addition to researching and preparing presentations that outlined their chosen solution. In practice, all parties involved found this amount of work to be overwhelming.

In order to streamline the assessment process, the number and types of data gathering instruments were reduced after the first semester the course was deployed, in addition to the reduction of the number of assigned prompts (see above). The first assessment instrument to go was the blog. This is not to say that having students blog as a means of reflecting on the experience is not valuable;[18] but, in this case, it was overly labor-intensive for the students to complete and for the professors to grade. Students who were presenting were no longer required to critique their peers on their presentation days, which gave them time to focus on their own solutions, while those observing could write thoughtful and constructive critiques without the pressure of future performance as a distraction.

Finally, the method of completing peer critiques was adjusted. The feedback from peer groups and professors was initially shared with the students only online. Unfortunately, in some cases, this caused unnecessary problems among students. Anonymous students who submitted online critiques were occasionally blunt or just plain mean, and the student reaction to the negative feedback was apparent in class; but, the professors felt that peer feedback, when constructive and delivered with sensitivity, could have a positive effect on student performance. Thus, there was a great desire to retain that part of the assessment. The solution that made the most sense was to make that part of the critiquing process fully transparent. Discussions of the presentations were carried out in class immediately after their completion. Then, the peer critiques were submitted online. This gave the professors the chance to have open conversations about the nature of constructive criticism and to model good critiquing behavior.[19]

Teaching and Learning in the Virtual Villa

The course module was taught five times at two universities, twice within a Roman civilization course at Xavier University, taught by the author, that was

[17] The courses were approved by each school's Institutional Research Boards, all those involved with the project completed the proper IRB training, and students signed informed consent agreements allowing their data to be shared anonymously.

[18] In fact, experiential reflections are used to assess learning in virtual worlds, as noted in Sparrow, Blevins and Brunner (2011); but, in the case of this study, reflections did not provide immediate quantitative data.

[19] Hmelo-Silver (2004); Ertmer and Glazewski (2015).

aimed at non-major undergraduates and three times at the University of Virginia, taught by Frischer, as part of upper-level art history and archaeology courses focusing on Hadrian's villa specifically or Roman villas generally. In all, 70 students were involved in the course and the study. Analysis of the data gathered from the students yielded a variety of results. The quantitative data from the first two classes, consisting mostly of scores from the quizzes taken by the students and questions on a post-course survey, were subject to preliminary statistical analyses with the help of educational consultant Dr. Lee Taylor-Nelms.[20] Of the data collected, the quiz grades yielded the least helpful results. The working hypothesis with regard to the quizzes was that, if quiz grades increased in the 3D learning environment of the villa simulation, this increase should indicate that the use of the virtual world had a positive impact on students learning. When the quiz scores were statistically 'crunched,' however, the results showed little to no difference between learning from 2D presentations and learning in the 3D villa. These results were discouraging, but not because they seemed to disprove the initial hypothesis. They were disappointing because they contradicted both what the professors observed in the classrooms and what was readily apparent in the vast amounts of qualitative data gathered during each class and additional quantitative data from the post-course surveys, all of which indicated that the combination of PBL and virtual world technology did positively impact learning, and not just the basic knowledge acquisition being tested in the quizzes.

The lack of either negative or positive impact in the quiz data was due in part to how the quizzes were written, distributed and completed by the students. Quiz questions for each activity were written in advance based on the learning goals listed on each prompt. They were then made available online for a limited amount of time after the presentations took place, and all the quizzes were graded by one professor to ensure consistency. In an ideal world, students would pay careful attention to the stated learning goals while preparing their solutions so as to cover each point, and then it would not matter when the quizzes were written. In reality, some students paid attention to the learning goals, but often enough some learning goals were left unaddressed, and others were not thoroughly covered. The students had only one attempt to take the quiz, but there was no time limit set for each attempt. Thus, students completing the quiz online had plenty of time to fish around the internet for answers when an unfamiliar term or concept arose. Writing the quizzes in advance and allowing students to complete them online with few restrictions were necessary primarily to aid in data

[20] See Taylor-Nelms *et al.* (2014) for a summary of the preliminary data analysis.

gathering and to mitigate the workload of professors. Even though these methods proved to be problematic in this case, there are solutions. In a standard classroom, where data is not being gathered, the quizzes can be written based on student presentations and questions can be fed into the quiz-making mechanisms of learning management systems, like Blackboard and Moodle, which are equipped with numerous functions that allow quizzes to be taken online but restrict the time allowed and can in some cases limit internet access.

Even though the quantitative data from the quizzes was less than indicative, other data revealed much more about the effectiveness of the Hadrian's villa simulation and the marriage of virtual world technology and PBL. One benefit that became apparent from the observations of the professors and from student comments was the impact of working in collaborative groups. Group problem-solving is a feature common to PBL,[21] and the size of the ideal group varies depending on the type of problem, the style of research, personal preference and class size. Some professors agree that two students per group is ideal, and three is too many, while some pedagogical literature on the subject suggests that five to seven students can be best when completing broad research projects.[22] These competing ideas were inadvertently tested during the first semester the course was offered. One class consisted of a total of eight students, while the other class consisted of 39 students. The class of eight students was divided into two groups of three and a group of two, and the larger class was divided into seven groups of five and one group of four.

It was clear early on that groups of four and five students were far too large for this sort of activity. There were problems determining leadership in the group and dividing the workload effectively. Some of these problems were resolved by assigning specific roles to students and alternating them for each activity, but this did not solve the 'divide and conquer' approach to research often used by students. This method of divvying up the workload and then assembling a presentation from disparate bundles of information is extremely popular to students because it appears to be efficient; but, it was found to be ineffective even by the students who regularly practiced it in these classes. The failure lay mostly in collaboration, or lack thereof, during the assembly process. Both professors noticed that presentations concocted in this way clearly lacked synthesis and cohesion, and they often exceeded the allotted presentation time for just this reason. Student comments indicated that collaboration skills improved

[21] E.g., Allen, Duch and Groh (2001); Torp and Sage (2002).

[22] E.g., Michaelsen (2002) 28–30.

drastically when students worked together on solutions presented using the virtual world because they quickly realized they could no longer assemble their presentations on the fly and speak from a loose conglomeration of slides. This was particularly true for the revised version of the final activity, *Home Town Improvements*, which asked multiple groups to work together on a solution. One student, when reflecting on what was most memorable about the class, noted, "because we had to combine groups 5 through 8, we really needed to communicate. We got together and just went through everything. It was definitely a group effort. Although each group had their own specific task, we helped each other in coming up with information and sources." By the time the final problem was assigned, students' experience with the virtual villa had thoroughly impressed upon them that communication and collaboration, as well as preparation, were essential so that avatars and the audience did not "get lost" while they were presenting. On top of that, this activity became a fan favorite and was frequently mentioned by students on their exit questionnaire as the most memorable and enjoyable activity of the course, despite the fact that it required what might be considered the most work in their estimation.

Another feature of student learning emphasized during the study was students' ability not only to gain knowledge but to build on that knowledge and continue to use newly acquired information in their solutions as the course progressed. Just as was the case with the investigation into collaboration, however, the ability to quantify knowledge ownership remained elusive but was apparent in student reflections and observations by the professors. The capstone final activity again stood out to students as the best one to highlight their knowledge retention, in part because it was the culmination of a series of related problem-solving activities, all of which led to that moment. Students had multiple chances to research, problem-solve and critique the solutions of others before they were presented with the challenge of coordinating their grand finale. When commenting on how the course encouraged knowledge ownership, one student referred specifically to *Home Town Improvements,* noting that, "by this time we knew pretty much all about Hadrian's villa and the Ostian port. Therefore, continuing research added all the facts into my long term memory." This particular student had engaged with the material enough to suggest that they might remember Hadrian, his villa and his relationship with Ostia long after the course was over.

It was easy to observe students' growing command of knowledge about the villa through the use of the villa simulation. Immediately upon entering the virtual villa, students began to learn the geography of this immense place. Nor did

they know it only from its plan, recognizable from the familiar birds eye view of structures like the Canopus or the Maritime Theater. Students who regularly explored various sections of the villa with their avatars learned how to navigate through and between buildings in a way that even advanced students on the villa might not understand from a paper plan.

In their quizzes, certain questions aimed to assess navigational skills by asking, for example, whether students should make left or right turns to get to a certain location or what they might see on their way. Some questions asked students to consider not only the villa plan, but the status and role of the person walking or their reason for moving about the villa. One question asked, "If you were one of the villa staff who lived in a room on the lower level of the Praetorium and needed to get to the Serapeum to serve food for the banquet, what building would be on your right if you chose an above-ground route?" Another question asked, "If Hadrian was staying in the Winter Palace and planned to receive the public on his birthday, what reception area would be the easiest for him to reach and most appropriate for seeing the public?" When these questions relied on students' knowledge of frequently accessed parts of the villa, their answers were usually correct. For navigational questions on areas of the villa that were accessed rarely or were not fully actualized in the simulation, students struggled to read the plan and to visualize the location of viable routes between structures, let alone paths within buildings.

Each time the course was taught, when students reached the final activity, most had a mental map of the villa memorized in the same way that they might rely on a mental map of their college campus; and, their mental map of the villa was constructed on the knowledge of how to drive an avatar from one point to the next. They were thus able to figure out the best available routes to several locations, and, if ever a student could not remember the way to places like the Small Baths or the Piazza d'Oro, another student could happily give them accurate directions.

Navigating the Virtual Past

It is possible to argue from the standpoint of a professor required to cover a set curriculum that understanding Hadrian's villa might not fulfill that requirement; but, this course was designed to incorporate multiple strands of inquiry even though the world of Hadrian's villa was the central focus of the course. Students began their exploration of Hadrian by learning about his physical appearance and his tastes through primary source material that undergraduates might not read, such as the *Historia Augusta*, Cassius Dio or Aurelius Victor; and, in designing a

statue, they began to comprehend how he compared to other emperors. Then, students were invited to explore his mind through activities that addressed emotions, especially with regards to his love of Antinous and grief at his demise, and how he wanted to be viewed by his friends, magistrates and people throughout the empire. By the end of the course, most students could answer questions on these topics in the guise of Hadrian or one of his retainers, and they would be able to justify their choices with examples rooted in Roman history. By encouraging comparison with other emperors and research into many facets of imperial Rome, Hadrian was used as a springboard for students to learn about imperial culture and history. When asked to predict Hadrian's behavior, they were encouraged to look at imperial precedent. How did other emperors interact with the Senate? What sort of petitions did Augustus entertain? How did Trajan manage his public image?

Overall, those involved with the implementation of this study and the courses that went along with it would call this combination of PBL and virtual technology a success, and those teaching courses on imperial Rome are encouraged to try the villa simulation for themselves.[23] There were, of course, some parts of this project which did not work as well as anticipated or desired. The failure of the quizzes to yield useful data, for example, mirrored their inefficacy as student assessments, which raises a vital question for any professor seeking to try new pedagogical techniques or to combine pedagogical strategies with technology. When encouraged to update teaching methods, how should methods of assessment also be revised?[24] At the least, shedding light on the need for effective means of assessing students who work in a variety of learning environments might bring attention to the issue.

The less successful parts of the course by no means overshadowed the positive results, as the students themselves articulated in comments made at the end of the class. "This classroom 'culture' also encourages students to think more critically, especially as we are forced to confront a problem-solving activity from different angles in order to create a complex and thoughtful solution." The critical thinking and group collaboration necessary for problem-solving are not only useful but are essential for success beyond the college classroom. More than that, students in the class felt that they were interacting with antiquity, which is always an important aim for those who teach about the past. One student said that

[23] It is possible to explore the Canopus at Hadrian's virtual villa by following this link (http://vwhl.clas.virginia.edu/villa/canopus.php) and clicking the VW icon.

[24] Swanson, Case and van der Vleuten (1991); Duch and Groh (2001); Gijbels *et al.* (2005).

"seeing the villa helped me think of solutions in more realistic terms." Another noted, "I find it amazing that the 3D world is shaped upon archaeologically supported details, and it makes me feel as though I am navigating the past." For these students, problem-solving in the virtual villa not only engaged them in the study of imperial Rome, it made them feel as if they themselves were part of the ancient world.

LYNNE A. KVAPIL

Butler University, lkvapil@butler.edu

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APPENDIX: SAMPLE PROBLEM-SOLVING ACTIVITY PROMPTS

I. Bathing Bureaucrats

Hadrian must meet with the Senate. He has returned recently from his travels, so he is exhausted and prefers to relax at his villa in the country rather than suffer the dusty journey into the city. So, he has invited the Roman Senate to meet him in Tivoli. When the senators arrive at the villa after a long day of travel, they will want to bathe before meeting their emperor. Your group is on the staff of the emperor's *cubicularius*. It is your job, therefore, to guide the newly arrived magistrates through the bathing process. Never have so many important people visited the villa before! Therefore, you have been asked to train a large group of slaves who will be assisting the senators as they bathe, to confirm that the baths will be supplied with any provisions (including water!) needed to accommodate such a large crowd, and to assure that the senators are well-protected while they are unclothed. To ease the nerves of *cubicularius*, Aelius Alcibiades, your group must present to him a plan for safely moving people through the baths (for training purposes) and an order for any additional resources that must be supplied for the occasion.

<u>Learning Goals</u>

By the end of this exercise you will learn about the following:

- The etiquette of Roman bathing
- Bathing structures at Hadrian's villa
- Water supply at Hadrian's villa and Roman water management systems
- Security measures at Hadrian's villa and responsibilities of the Praetorian Guard
- Primary and secondary sources associated with the above subjects

<u>Guidelines</u>

- DUE in-class.
- Use the 3DVW of Hadrian's villa, the Hadrian's villa website, and other resources to prepare your presentation to Aelius Alcibiades. You will present your training plan to him in the VW.

- If you like, you may record your presentation in the VW by using Fraps or a similar style of program.
- Presentations must be no more than 10 minutes long (whether given live or prerecorded).
- A short annotated bibliography must be turned in with your presentation. Grades will be significantly lowered if unreliable sources are cited.
- Every group member must play a role in the presentation (staff member, Aelius Alcibiades, etc).
- The non-presenters will vote on which proposal they think was the best.

Quiz & Peer-assessment Survey

- After the in-class presentations, you must complete a peer-assessment survey and a quiz over the content in the activity using the links posted.
- Please include comments in your feedback - this is critical to the study!

Suggested Resources

Books on Reserve

- *Hadrian's Villa* (site guide), Electa, 2000, 2011.
- *Life and leisure in ancient Rome*, Balsdon, J. P. V. D., London, Phoenix, 2002.
- *As the Romans did: a source book in Roman social history*, Shelton, Jo-Ann, New York, Oxford University Press, 1988.

Sources available online

- *The Praetorian Guard at Hadrian's Villa*, S. Tennant.
- *Perambulations of Hadrian*, M. Ytterberg

Useful and acceptable websites

- Oxford Classical Dictionary Online
- Digital Hadrian's Villa Website

II. Wining and Dining the VIPs

Oh, that Ostian Embassy! They have deferred to his highness, asked him for money, even appointed him a *duovir* for the city! They have even arrived to meet with the emperor in person - how tiring! As the staff of the emperor's *cubicularius*, you must feed and water the visitors. It seems it is time for a lavish banquet. Aelius Alcibiades, the *cubicularius*, is swamped with other duties, including the production of a play with the worldwide organization of Dionysiac

performers in honor of Hadrian's birthday. So, he has delegated the planning and orchestration of the banquet to you and your group. What a task! The villa has so many dining halls, the menu options seem endless, and Roman dining customs seem a bit confusing to slaves and freedmen who come from all over the Roman world. It is, however, very important to wow the Ostians so that they continue to favor the emperor and keep goods moving smoothly through the port of Rome. To allay the fears of Aelius Alcibiades, you must present to him your plan for the event, including your careful choice of dining hall, some form of entertainment (it is a good thing Fronto and Favorinus are guests at the villa) and a menu fit for the emperor (and his flatterers).

Groups 1&2: You are in charge of designing a menu, serving the food and taking care of the seating arrangements for all guests at the banquet.

Groups 3&4: You are in charge of choosing and coordinating the entertainment and entertainment spaces for the banquet.

Because the entertainment and courses of the dinner should alternate throughout the banquet, Group 3 should plan their entertainment to dovetail with the menu of Group 1, and Group 4 should plan their entertainment to dovetail with the menu of Group 2. Both sets of groups must agree on the best space(s) for their banquet. Only one banquet proposal will be chosen by Aelius Alcibiades, so it is important that you put your best foot and best 'food' forward, as the losing group may be flogged.

Learning Goals

By the end of this exercise you will learn about the following:

- The classification of residents of the villa, especially the high-ranking elite
- Roman banquet customs, diet and cuisine
- Roman entertainments such as music and dance, gymnastics, epideictic oratory, poetry, etc
- Dining spaces in the villa
- Primary and secondary sources on the above subjects

Guidelines

- DUE in class

- Use the 3DVW of Hadrian's villa, the Hadrian's villa website and other resources to prepare your presentation to Aelius Alcibiades. You will present your plan to him in the VW, so be prepared to 'walk' him through your dining and entertainment plans.
- If you like, you may record your presentation in the VW by using Fraps or a similar style of program.
- Presentations must be no more than 10 minutes long (whether given live or prerecorded). Your grade will be docked for every minute you go over the time allowed.
- A short annotated bibliography must be turned in with your presentation. Grades will be significantly lowered if unreliable sources are cited.
- Every group member must play a role in the presentation (staff member, Aelius Alcibiades, etc).
- The non-presenters will vote on which proposal they think was the best.

Quiz & Peer-assessment Survey

- After the in-class presentations, you must complete a peer-assessment survey and a quiz over the content in the activity using the links posted.
- Please include comments in your feedback - this is critical to the study!

Suggested Resources

Books on Reserve

- *Hadrian's Villa* (site guide), Electa, 2000, 2011.
- *Life and leisure in ancient Rome*, Balsdon, J. P. V. D., London, Phoenix, 2002.
- *As the Romans did: a source book in Roman social history*, Shelton, Jo-Ann, New York, Oxford University Press, 1988.
- *The Roman Cookery Book*, Barbara Flower.
- *The Emperor in the Roman World*, Fergus Millar, pp. 410–33.

Articles/Books on BB

- *Dinner of Trimalchio*, Petronius.

Useful and acceptable websites

- Oxford Classical Dictionary Online
- Digital Hadrian's Villa Website

III. Home Town Improvements
Presented by ALL GROUPS (Groups 1–4 together & Groups 5–8 together)

The city of Ostia does so much for Rome. It is high time the city itself reflected its importance to the Empire! As a *duovir* for the city, you know that the best way to get funds for city improvements is to petition the emperor. Luckily, Hadrian has just arrived home from a long journey, so it is possible to see him face to face. As you survey your port city, it is easy to see that there is a lot to do—so much that it is difficult to know just where to start. So, you form a committee of local citizens to help you determine how imperial funds might best help update the city so that it is on par with other up-and-coming cities around the empire. The emperor has even agreed to grant you an audience at his new villa in Tivoli. You and your committee must prepare a concise, but formal petition, to be presented directly to the emperor, that describes your modest plan for improving Ostia. Hopefully, you can persuade the emperor to shower you with sesterces!

Group 1, 5: The Ostian *duovir* and his committee: Your goal is to generate a formal petition that will persuade the emperor to provide funds for your plan. You should also be prepared to gain any advantage possible so your petition will be approved, possibly by snooping around the villa and asking nosy questions of your guides about the emperor's mood, his likes and his pet peeves.

Group 2, 6: The emperor and his closest advisors: Your goals are to decide where you want to hear the petition, communicate this decision to the *duovir*, consider the petition, decide whether or not to grant it in view of the imperial precedents and your own assessment of Ostia's needs, and to announce your decision in the appropriate manner with an explanation for your decision (including imperial precedent if possible).

Group 3, 7: The emperor's *frumentarii*: Your goal is to obtain, on the sly, key information about the Ostian embassy and their petition in advance of their formal presentation and get the most important information to the emperor and his advisors as quickly as possible so that they have the maximum time to think about how to handle the Ostians' request.

Group 4, 8: Members of the office of the *ab admissione*: Your goal is to meet the Ostian embassy and guide them through the public parts of the villa to the meeting place. Be sure to impress the visitors with your knowledge of the layout,

design and meaning of the features of the villa. Remember that you control who does and does not see the emperor. Perhaps you can use this power for your personal advantage.

Learning Goals

By the end of this exercise you will learn about the following:

- Public architecture typical of a Roman city and the city of Ostia (architecture, city plan)
- The members of the imperial court and their duties
- Historical examples of petitions to the Emperor
- Modes of petitioning the emperor and appropriate etiquette
- Hadrian's titulature
- How to give a guided tour of the villa
- The duties of the imperial *frumentarii* and the office of the *ab admissione*
- Primary and secondary sources on the above subjects

Guidelines

- DUE in class.
- Use the 3DVW of Hadrian's villa, the Hadrian's villa website and other resources to prepare in advance for your role in the meeting of the Ostian embassy with Hadrian. Script out what you can, but be prepared to ad lib if necessary. Whatever happens, stay in character and remember that this is being recorded!
- Meet in the virtual world at the entrance to the villa at the beginning of class so your attendance can be counted. Then, proceed to your designated location.
- Since the groups will be in the classroom, and the confidentiality of information is important to the dynamics of this PSA, members of groups may only communicate by chatting, not by speaking.
- A short annotated bibliography must be turned in with your presentation. Grades will be significantly lowered if unreliable sources are cited.
- Every group member must play a role in the presentation.

Quiz & Peer-assessment Survey

- After the in-class presentations, you must complete a peer-assessment survey and a quiz over the content in the activity using the links posted.
- Please include comments in your feedback - this is critical to the study!

Suggested Resources

Books on Reserve

- *Hadrian's Villa* (site guide), Electa, 2000, 2011.
- *Guide to the Excavations at Ostia Antica*, S. Gallico.
- *Life and leisure in ancient Rome*, Balsdon, J. P. V. D., London, Phoenix, 2002.
- *As the Romans did: a source book in Roman social history*, Shelton, Jo-Ann, New York, Oxford University Press, 1988.
- *The Emperor in the Roman World*, Fergus Millar, pp. 363-446.

Useful and acceptable websites

- *On Benefits*, Seneca: http://www.stoics.com/seneca_essays_book_3.html
- Oxford Classical Dictionary Online
- Digital Hadrian's Villa Website