AN EDUCATOR'S HANDBOOK

for Teaching about the Ancient World

Volume I

Edited by Pınar Durgun

ARCHAEOPRESS

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(volume I)

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Cover: Teachers (inspired by ancient Assyrian, Mayan, and Greek depictions holding teaching tools) and students (holding various school supplies) in a classroom. The image imitates the style of painted ancient stone reliefs. The colors and details are worn off. Artwork by Hannah M. Herrick.

This book is available direct from Archaeopress or from our website www.archaeopress.com

Dedicated to all undervalued and underpaid educators…

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APPENDIX

(handouts, translations, examples, and extra materials for printing)

Editor's Note and Acknowledgements

I want to start by acknowledging that many of our university campuses, classrooms, and buildings where the teaching activities in this book were written and taught are located on Native lands[1] and/or on lands that have been bought with profits made from slavery and the slave trade.[2] As authors of these activities and educators on these lands, we would like to acknowledge, remember, and honor the communities and individuals who were made to suffer through slavery and colonialism, and those who were forcibly removed from their lands. We acknowledge this past and the privileges it has provided to white scholars and educators. We acknowledge that many of our colleagues and students who are BIPOC, LGBTQIA+, immigrant, First Generation, and are disabled continue to suffer in the hands of racism, colonialism, oppressive governments and institutions, police brutality, sexual abuse and harassment, xenophobia, exclusionary practices, and other systemic inequities in schools, on campuses, and in our societies.

Since February 2020, when this project started, 838 emails labeled as "teaching handbook" have accumulated in my inbox. But the amount of time and effort that went into this book is beyond calculation. I would like to thank each contributor and peer-reviewer for their input, time, work, support, and patience especially in a time of difficulty, uncertainty, and pain, when they had more important priorities in their life. It made me feel very humbled and proud to be part of a community of selfless hardworking educators. Their love for teaching and their students inspired me beyond words.

This book was created to:
1. Represent the ancient world as it was; diverse.
2. Provide open-access, accessible, and inclusive pedagogical methods and teaching activities about the ancient world for any educator to use.

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[1] Nash, M. 2019. Entangled Pasts: Land-Grant Colleges and American Indian Dispossession. *History of Education Quarterly* 59/4: 437-467.

[2] Wilder, C.S. 2013. *Ebony and Ivy: Race, Slavery, and the Troubled History of America's Universities.* Bloomsbury Press.

3. Highlight the importance of student-centered and object-based/hands-on teaching.
4. Showcase the possibility of a transparent, respectful, and collaborative peer-review process.

I am confident that this book has achieved some of these goals. And only time will tell us how successful it was in achieving some of the other goals. But I already know that I failed at least one goal. My goal to diversify what we mean by the "ancient world" is genuine. This was one of the reasons why the Call for Contributions to this volume was not by invite; it was an open call to any educator teaching any area, time period, and culture. But I acknowledge that I am guilty of sending the Call for Contributions of this volume to list serves and platforms I know or am part of.[3] This resulted in an imbalanced representation of geographical areas, with more activities on the ancient Near East and ancient Mediterranean. I wish I was able to include every single subject, area, and time period in this book. I wish educators from all backgrounds could contribute. But not every educator working on the ancient world has hands-on activities, has the time, energy, or resources to share them, is interested in publishing them, or publishing them in this book.[4] And many who are interested, may not have seen the Call for Contributions. I hope with your support there can be another volume, one that is more balanced in terms of areas represented. I would like to thank all my colleagues who reached out with suggestions, connected me with their colleagues, shared the Call for Contributions with their networks, who offered their help, their support, and their kind encouraging words.

The readers will notice that I excluded the names of the contributors' institutions. The goal with this conscious decision was to empower the

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[3] I am a Near Eastern archaeologist with a background in art history, anthropology, and cultural heritage. Due to my interdisciplinary education and interest in mortuary practices, I have some training in Egyptology, Assyriology, bioarchaeology, and Classics. I mostly teach in university classrooms and museums.

[4] I also had to limit the number of contributions by the same author to one essay, one individual teaching activity, and one collaborative teaching activity to include more voices.

educators as individuals and not give all the credit to their institutions. As educators, we do not always agree with our institutions' decisions, political stands (or lack thereof), value systems about what counts towards tenure, or how much time, energy, or resources we should be spending on our teaching, mentoring, public scholarship, or activism. Schools and universities also often do not protect their educators against wrongful or unethical policies. Many educators in the United States are currently being asked to return to their schools to teach and put their (and their loved ones') health and safety at risk. Another reason for this decision was that part-time contingent faculty in the United States do not have job security, healthcare, or funding for their teaching through their institutions. They keep on trying to make their teaching better for their students despite many limitations. They do this while applying for dozens of jobs, doing their research, and working multiple jobs. Adjuncts, post-docs, part-time instructors are often treated as disposable faculty, and will most likely not have the same affiliation and email address for longer than a year. Many graduate student instructors graduating this year will not have a job next year and therefore, will have no university or institutional email address.

If there are any activities you like and/or implement, please reach out to the authors. I encourage you to do this, because there might be educators out there self-doubting or being convinced by the wrong advisors or colleagues that it is not worth spending more time in making their teaching valuable and meaningful to their students and to their communities. Your email can change their minds. If you implement any of the teaching activities in your classrooms and would like to share photos or observations with other educators on this website, please send me a message there. You can also use *#teachancient* on social media.

The idea for this book formed when I was an adjunct; working at two-part time jobs, commuting for hours every day, teaching all day, and preparing new classes from scratch every evening and trying to come up with fun and informative teaching activities until I fell asleep on the sofa. As an international scholar on an academic visa, I needed to have an academic job, whatever it paid, to be able to continue to teach and live here in the United States, where I had spent the last 7 years of my life, building

networks, friendships, and a family. Many of my colleagues are in similar situations and therefore have to allow themselves to be abused by the adjuncting system. Therefore, I would like to acknowledge all the educators who contributed to this book despite being undervalued and underpaid. I also acknowledge dedicated educators who wanted to contribute but did not have the time, energy, or resources, because they were busy teaching at multiple jobs, were care-takers, were worrying about their visas, were protesting in the streets, were creating other resources, or were educating others to make a change in their families and networks.

I was fortunate to have had a fellowship this year, where I had enough time to work on this book project. I would not be able to edit this book if I was adjuncting or if I did not have the financial (or visa) security provided by this fellowship. That being said, I also acknowledge that the Metropolitan Museum of Art, which provided me with this fellowship through the generous endowment by J. Clawson Mills, as well as many of the museums we provided links to in our activities, have collections acquired through questionable means from questionable collectors who looted or illegally owned ancient objects. Many of these museums have benefited from the mistreatment, abuse, and looting of indigenous cultures. Museums have to do better. As museum educators we need to push our institutions for change and hold our administration and decision-makers accountable.

I want to acknowledge the makers of the ancient objects that inspired many of our teaching activities. I hope the teaching activities will provide some agency to these objects (especially those in museums that have lost their contexts due to illegal looting and trade) and the ancient peoples who created, used, and buried them. I am humbled and inspired by the skill, knowledge, creativity, and craftsmanship that went into making these objects.

The peer-review process of this book (just like its "cookbook" format) was a little bit unusual. As a result of my own experience and countless studies showing that "'Rude' peer reviews inflict most damage on women and minorities", I decided to have an open-review process. I connected contributors with other educators and scholars in ancient world fields who

agreed to be peer-reviewers (some reviewers are also contributors to this book). The goal of this open peer-review process was to increase collaboration amongst educators. It was more of a brain-storming communication, rather than the traditional review format, which is often one-sided and picky without providing constructive criticism. Many contributors told me that they appreciated the collaborative approach and that they received helpful feedback. In one case, the reviewers decided to write the activity together with the contributors, seeing that their activity could benefit from bringing together their forces (Barack, Edelstein, Beeler, and Gardner). I believe that this book will encourage many more collaborative teaching alliances.

Peer-review requires expertise, time, and hard work, but peer-reviewers are often anonymous and are not acknowledged for their volunteer work. Therefore, I want to thank the peer-reviewers of this book openly; Jen Thum, Rebecca Mendelsohn, Alena Buis, Christian Casey, Sara Mohr, Carl Walsh, Shane Thompson, Zach Rubin, Jennifer Bates, Christopher Jones, Kat Medill, Tine Rassalle, Anastasia Amrhein, Elizabeth Knott, Nick Cross, Christopher Jones, Sarah Barack, Beth Edelstein, Chelsea Gardner, Megan Lewis, Liat Naeh, Rebecca Stephens Falcasantos, and Eva Mol, for their time, diligent work, and thoughtful insights and suggestions in their reviews. Bilingual educators of this volume submitted their activities in Spanish, Mandarin, and Turkish so that educators using languages other than English could also make use of this resource (you can find these in the Appendix). I would like extend my thanks to Marina Escolano Poveda, and Erhan Tamur for their work and for getting these bilingual reviews done within a tight deadline. A special thank you goes to Hannah Herrick for her fantastic artwork that is the cover of this book. I encourage you to read her essay on *Dig Doodles*. I also want to thank the publishers of this book, ArchaeoPress, particularly David, for believing in this project and bringing it to all of you. Consider publishing with their open-access series, and open access in general, to make your research and teaching accessible.

Lastly, I would like to thank my partner, my sister, my parents, my friends, and my colleagues for empowering me to turn this idea into reality. I am forever grateful to all of you.

SECTION 1: PEDAGOGICAL ESSAYS

Introduction:
Why should we teach and learn about the ancient world?

Pınar Durgun

The world and our teaching are changing so quickly and so drastically around us in 2020. Online and open-access resources are becoming the only way students and educators can access and share information, while libraries, schools, and cultural organizations remain closed. Once campuses, schools, museums, and libraries reopen, educators will be forced to teach in entirely new or hybrid ways. The way we, as a society, see and understand the past is changing too: Historians are comparing historical pandemics like the "Black Death" to coronavirus. Archaeologists are joining in discussions about how and why we should remove racist monuments. We are once again coming to realize that the past is always present, and it is always relevant.

Those of us who study and teach about the ancient world know that ancient authors wrote about pandemics and death long before Shakespeare and Dante (for example, the Athenian and Antonine plagues). Bioarchaeologists and paleo-pathologists can tell you that epidemics and diseases were among the factors in the collapse of the Maya[5] and Indus Valley[6] civilizations. Classicists, Assyriologists, and Egyptologists know well that *damnatio memoriae* is a necessary and valid strategy that can inform us about oppression, conflict, and change. Archaeologists can tell you that racist monuments can be studied as ruins, as shameful things of the past that are no longer part of our present and future.

Studying the ancient world not only reminds us of the human struggles we share with people who lived and died on this planet before us, but it also teaches us about resilience. Despite collapse and oppression, humans

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[5] Wright, Lori E., and Christine D. White.1996. "Human biology in the Classic Maya collapse: Evidence from paleopathology and paleodiet." *Journal of World Prehistory* 10/2: 147-198.

[6] Schug, G.R. et al. 2013. "Infection, disease, and biosocial processes at the end of the Indus Civilization." *PLoS One* 8/12: e84814.

survive. They find solutions and rebuild civilizations. There are lessons to be learned from ruins, broken pottery, and fragments of texts. The buildings built on destruction levels we excavate, walls made of spolia we study, origin myths based on survival stories we translate are all testaments to how resilient ancient people were, and how they stood against oppression, war, violence and catastrophes. They are testaments to our own resilience, creativity, and potential.

Learning about the ancient world makes us more empathetic humans. I see this clearly when I teach hands-on classes, particularly in my experimental archaeology course. One of the lessons I want my students to learn in this course is that just because something looks simple, doesn't mean it is easy to make. This registers with them the day we do flint-knapping. Once students grab a piece of flint and a piece of antler to make their own stone hand axe, I do not need to explain to them why "primitive technology" is, in fact, not primitive. They get frustrated with hitting their core for hours and when they accidentally end up breaking their piece in half (Figure 1). They get excited if their core even looks close to being triangular in shape after three hours. They see that men do not have advantages over women in making stone tools.[7] They learn that the makers of these tools were

Fig. 1: "Live like it's 3000 BC: Experimental Archaeology" students are flint-knapping to produce an Acheulean hand axe. Brown University, 2018.

[7] For woman tool makers see this article.

people with high knowledge and skills and a lot of patience. The same happens when they work with clay. Once they make their own clay figurines, they know to call prehistoric objects "art" and their makers "artists," rather than calling them "primitive."

Ancient makers and artists inspire us and have inspired art for thousands of years. Frida Kahlo, for example, surrounded herself and her self-portraits with images of the Aztec past. She even had a built model of an Aztec temple in the middle of the courtyard of Casa Azul. Banksy's fake "cave painting" that they secretly put up on display in the British Museum in 2005 recently returned to the British Museum for an exhibit on dissent. These artists whom we admire and recognize for their artistic genius use ancient art as their muse. So can our students (Figure 2).

Fig. 2: A "cave painting" made by a group of students who used ochre, eggs, vegetable oil, and charcoal. "Live like it's 3000 BC: Experimental Archaeology" course by the author. Brown University, 2017.

We find connections to our ancient ancestors through their art and through simple objects they made and used, such as toys or drinking cups. Even pictures of ancient footprints captivate us; we instantly feel connected to someone who lived and left a mark in this world thousands of years ago. Recreating objects can also inform us further about the objects and their makers. The moment students realize that cuneiform is not drawn on the

clay tablet, but is impressed into it (Fig. 3, also see Mohr and Monroe in this volume), their understanding of the script changes completely. By learning about a Mesopotamian scribe who wrote about their depression on a clay tablet, students are encouraged to think of the pain and struggles that this individual experienced thousands of years ago. As teachers of the ancient world, we have the power to change the way our students see and understand the world, themselves, and other people.

Fig. 3: A cuneiform tablet made by a student practicing signs using a disposable chopstick. "Tablets, Temples, and Cities: Ancient Near Eastern Art and Archaeology" course by the author. Wesleyan University, 2019.

Learning about the ancient world helps us recognize human ingenuity. Once you make your own barely functioning hand axe, which early humans were so good at making, you are no longer surprised that humans thousands of years after the Stone Age would be capable of building pyramids. You can no longer watch *Ancient Aliens* without rolling your eyes or loudly disagreeing (if you haven't quit watching it already). You recognize that the people, who were able to build complex civilizations without technologies we take for granted today, did not need the help of extraterrestrials to build a stone monument. In any case, if you think aliens were behind all this human creativity and knowledge, you are only following the footsteps of a long history of colonialism and white supremacy: some of the "forefathers" of archaeology and anthropology assumed that a (white) lost race had to be responsible for the Native

American mounds or the walls of Great Zimbabwe. Indigenous people who lived for generations in the area, who knew local materials and resources better than anyone, who passed down knowledge for generations were considered too "primitive" for these accomplishments. Discrediting indigenous knowledge and skills is not mysterious or adventurous as the History Channel wants us to believe. It is racist. By talking about the wrongful pasts and mistakes of the past, we can empower our students to ask complex questions: Who creates knowledge? Whose voice is heard and whose is silenced? Who is represented and who is excluded?[8] [9]

When we study the ancient world, we do not only learn about art, objects, texts, and architecture; we learn about people. We learn about choices people make, their stories, and their agency. One of the ice-breakers I use on my first day of archaeology classes goes like this: "Pick an object from your bag. Turn to the person sitting next to you and exchange your objects. Write three things down about this person based only on the object you received. Once you are done, ask each other if your assumptions were correct." Some students pick their reusable water bottles. Their peers predict that they are "environmentally-conscious." Some students choose an enamel pin through which their peers can guess what their favorite book is. Sometimes they pick objects that have no meaning or are misleading. I had a student who gave her peer a ring in the shape of a letter. Her peer assumed that she liked customized jewelry. The truth was that the ring belonged to the student's late grandmother, who gave her the ring because their name started with the same initial. The point of the activity is to show students that objects can inform us about people who made or used them. But the information is never complete

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[8] Please watch this panel discussion by Maria Franklin, Justin Dunnavant, Alexandra Jones, Alicia Odewale, Tsione Wolde-Michael, and Ayana Flewellen on pedagogical and curricular strategies, capacity building and community engagement, and how we might diversify and critically rethink research themes and the presentation of archaeological heritages. Those of you on Twitter should also search for #blackinivory #blackinarchaeology to read more on how our black students and educators are being discouraged and excluded from academia.

[9] *Cripantiquity* has some great resources for making your classrooms and academic conferences more inclusive and accessible.

and sometimes misleading if you do not contextualize the objects with other information. This is one of the most essential lessons in archaeology. My students learn it through a seemingly non-archaeological activity.

Engagement with the ancient world does not need to take place only through recreating ancient tools or art. In my Introduction to Archaeology courses, I ask my students to bring a piece of pottery to class. Some bring a flower pot, some bring a fancy plate, and most bring their favorite mug. Then, in groups, they decide which one of their pottery is older, which one is newer. They learn about creating a relative chronology and typologies by looking at the shape, color, finish, textual information (like labels or decoration) with objects they are familiar with. As you will see in this book, students can benefit from role playing to understand linguistic diversity (Medill in this volume) or they can play with dolls to think about gender (Rassalle in this volume). They can learn to read ancient Egyptian hieroglyphs by looking closely at an object they have already seen dozens of times (Casey in this volume). You will see that sometimes breaking a pot, rather than making one, can teach valuable lessons about archaeology and object conservation (Beeler, Barack, Edelstein, and Gardner in this volume).

Besides all of the above-mentioned higher learning goals, hands-on and interactive activities make learning undeniably more engaging and fun. Can we really expect our students to listen to us lecture for two hours and give us their undivided attention? Especially now that many of us required to teach over digital platforms? Students today are constantly bombarded with distractions on their phones and laptops. The distraction comes not just from social media as we would like to think, but also from school emails, job postings, and friends texting about an upcoming exam. I work with instructional designers in preparing my online courses, and they suggest that my lectures should be 10 minutes maximum. So do many other educators.[10] This is how long your students can focus on your lecturing voice and your "floating head talking" video. In the physical

[10] Also see: Mayer, R.E, L. Fiorella, and A. Stull, 2020. "Five ways to increase the effectiveness of instructional video." *Educational Technology Research and Development* 68: 837–852.

classroom, the maximum is around 15-20 minutes. So how do we communicate information and teach content for longer stretches of time?

Those of us who have taught for years know that some of the content is better learned by seeing, some by writing, and some by taking exams. But if my course evaluations and my own experience as a student are any indication, we all love learning by doing. I know this also because I give students options for assignments. They have the option to write a research essay or to come up with a creative way of presenting their research. One of the creative assignment options in my ancient Near Eastern Archaeology course is to make a video based on a primary source, like an ancient text, an archaeological site or object. Last year, my brilliant students worked in groups and produced videos such as a reenactment of the Descent of Ishtar (they had to read the different translations of this text) and a news story on Naram-sin's battle with the Lullubi with interviews from both the winning and losing sides (based on the famous victory stele). I did not have to assign more readings; students did their own research in finding sources and they actually had to read them to create their videos. At the end of the course, they said that this was one of their favorite activities.

"Tell me, and I forget. Teach me, and I remember. Involve me, and I learn."[11] is, therefore, a simple but effective teaching strategy. Students engage with the material and enjoy it if the learning activities involve them, ask for their input, and enable them to participate. In my classes about animal domestication and secondary production, I bring in a dozen spindle whorls and a bag of wool. I put students in groups and hand them their spindle whorls. Their task is to figure out how to turn wool into yarn using this object they have never used before (to my surprise, there is always one student who has experimented with it). They learn what secondary production means, just as they would learn in a lecture. But they

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[11] Often attributed to Benjamin Franklin, but based originally on a quote by Xun Kuang, a Chinese Confucian philosopher: "Not having heard something is not as good as having heard it; having heard it is not as good as having seen it; having seen it is not as good as knowing it; knowing it is not as good as putting it into practice." (Translation by John Knoblock, 1994. *Xunzi: A Translation and Study of the Complete Works*. Stanford University Press.

also learn how to work with each other, how to be creative problem-solvers, and how to spin! Sometimes all you need to recall information is sensorial memory. Eating ancient grains in the classroom or smelling ancient spices may help some students remember information about domestication or about inter-regional trade.

You do not need to compromise your content or your teaching goals to teach in engaging and immersive ways. Any subject can be turned into an interactive learning activity. You will find activities in this book where students play a ball game on the green to learn about warfare and religion (Thompson and Walsh in this volume). You will find activities where a mock debate can teach students about the facts of a historical council (Cross in this volume). These activities provide information, but they also provide students with critical thinking, public speaking, team-work, and physical dexterity skills. When my students make their "cave paintings" they learn how to conduct an experiment and how to test their hypotheses (Fig. 2). They are asked to examine how to make the best ochre-based paint that works for a stone surface. They can mix their pigment with water, vegetable oil, plant oil, eggs, or a combination. They have to document their results systematically. What they learn by making art are scientific research methods.

Learning about the ancient world does not need to happen within the confines of the classroom. There are connections between our past and our present everywhere. I take my students to local cemeteries and war memorials and ask them to apply the knowledge they learned in the classroom to the things surrounding them. Why do we commemorate fallen soldiers of the world wars with Roman-like columns and monuments? Why do government buildings in the United States look like Greek temples?[12] Take your students outside. They will appreciate it. Ask them to look closely at buildings and places they have passed a hundred times. Learning about their local history enables them to see that their knowledge about the past is relevant to their present. Some of these

[12] I developed this tour using Greek revival and Neo-classical buildings to talk about ancient Greek architecture, religion, and art. You can ask students to develop similar tours.

places and histories are painful. But excursions to local monuments are opportunities to point out the history of your university campus, your city's role in Civil Rights Movement, or the erased indigenous and Native settlements.

Teaching about the ancient world has so much potential in serving and connecting with our wider communities. We all want to learn about our past. Let students record podcasts (Price in this volume), let them host public events. Let them create meaningful products to help other students, researchers, and educators (Ben-Marzouk in this volume). And do not limit your collaborative teaching to your own colleagues. Connect with an Expert, Skype a Scientist, Request a Woman Scientist, Women also Know History, and Women of Ancient History are platforms where you can offer your teaching to other educators or invite scholars and educators to your classroom.

Our students know the value of public scholarship better than we do. An excellent example of this is the Ratty Blog, a self-initiative by two graduate students in Assyriology and History of Science. They showcase scholarship in their fields and help other students get the training they need to become public scholars. Another example is Save Ancient Studies in America, composed of volunteer students and early career scholars, who offer free online reading groups and create engaging content on social media while fundraising for more public programming. There are also individual scholars in our fields who dedicate their time to public scholarship. Digital Hammurabi, led by two Assyriologists, is doing a great job in bringing information about our (sometimes obscure) subjects to the enjoyment of the public. They do this by hosting podcasts and YouTube videos and providing scholarships for students. They have an important message at the end of their videos: "Resist poor scholarship. Always ask: How do you know that?".

These are perfect teaching and learning opportunities that happen outside the classroom and showcase what we as educators of the ancient world, as archaeologists, ancient historians, Assyriologists do, and how we know what we know, and how we can contribute to our societies. The reason

why so many people watch *Ancient Aliens* and seek information on YouTube is the natural human curiosity for the past. We, as scholars and educators, need to be better in responding to this curiosity. If we don't, people who don't see why dressing up in colonial outfits in their fieldwork in Egypt is glorifying colonialism will be the ones teaching Egyptology on YouTube. If we don't, Ancient Aliens is going to be the most accessible thing out there that people will get their "archaeological" information from. I have already explained why racist/colonial scholarship has no place in our present and future. As 2020 has shown, I don't need to explain why false information can be disastrous.

It is no secret that humanities degrees conferred are at a sharp decline. It is up to us, as educators, to show why learning about the ancient world matters. It is up to us to communicate that one can learn so much about today's world by studying the past. It is our job to teach academic, intellectual, practical, social, and digital skills that students need. Not only to students who decide to become historians, archaeologists, linguists but also to students who will be making our medicines, outlining our public policies, designing our schools and hospitals. Our fields matter in the well-being of our societies. Here is a recent Tweet by a science student that sums this all up perfectly:

> "*I didn't get why we were required humanities in undergrad. I was a science student! But now, when the world's attention is on a virus —a topic I've spent my whole adult life studying—what I think about most are social structures, inequality, and sacrifice. I think about people.*" (April 16, 2020)

I have tried to summarize some of the reasons why we need to help each other teach about the ancient world with examples I am aware of. There are of course, many more. There are many more creative educators among us who teach about the ancient world in new and exciting ways that aim to make an impact on students and our communities. I want to use these activities in my classes. And based on dozens of activity exchanges with my educator friends, I assume some of you do too.

This is why "An Educator's Handbook for Teaching about the Ancient World" was created. The first section of the book addresses some of these important issues in teaching about the ancient world: Why should we publish educational resources as open access (Buis)? How can we effectively make use of museums and ancient objects in our teaching (Thum)? Why should our research and pedagogy be collaborative (Laluk and Agostini)? Our teaching has broader implications. The essays provide great examples and case studies for educators to apply these methods and ways of thinking to their own teaching. The first three essays are geared towards any educator, whereas the last four essays have more specific case studies for university teaching. However, there are pedagogical lessons we can learn from each other regardless of the time periods, cultural or geographical areas, and subjects we study and teach. There are also lessons we can learn from each other no matter where we teach; a museum, a university lecture hall, a library, or a school classroom.

In the second section of this book, educators who teach about the ancient world from the ancient Mediterranean to ancient Americas put together learning activities they have used in their art history, archaeology, anthropology, classics, religion, social studies, and ancient language classes from elementary to graduate level courses. Some of these activities require materials, some do not. Some are designed to be prepared before class, and some require no preparation. Some can be taught online, and some require physical classroom interaction. They are designed in a format of a "cookbook recipe" so that any educator can pick up an activity and replicate it in their classroom. Some of the activities are very much tied to the culture, time period, or place, but some can be applied to any content. Some of the activities are written by a single educator, and some are a product of collaborative teaching. All of the activities, however, are tested in the classroom and peer-reviewed by another educator. More importantly, all activities are engaging, hands-on, immersive, and/or experiential. They are only a small portion of the endless possibilities of making teaching and learning about the ancient world fun, meaningful, and informative. I urge you to use some of these activities in teaching your students and in engaging your communities with the ancient world. I know I will.

Activating the Ancient World with Museum Collections

Jen Thum

Artifacts have the potential to play a special role in the lives of museum visitors and in museum pedagogies. For most people, museums are the only spaces that offer opportunities for direct engagement with archaeological material. These artifacts are likely to be the only primary sources from the ancient world that the average person will interact with, and they are arguably the most accessible of such sources, owing to their sensorial and material nature. As an archaeologist, I have always enjoyed teaching directly from artifacts and have never thought to do it any other way: their materiality and immediacy make them excellent touchstones for memory recall, direct comparison, and personal experiences with the past. Object-based learning[13] is so central to archaeology that it can be easy to forget that there are teachers, students, and members of the public who do not regularly engage with objects as educational tools.

This essay is geared toward translating what scholars of the ancient world see as common knowledge—that artifacts possess unique pedagogical value—into public knowledge that other educators can use in their own practice. I offer here a small contribution based on my experience developing museum programs for a variety of audiences: six guiding principles for engaging learners with the ancient world through museum collections, and some strategies to help put those principles into action. Those principles are: 1. quality (time) over quantity; 2. prioritize the material encounter; 3. address provenance and context; 4. give personhood to ancient people; 5. draw connections to contemporary issues; and 6. be clear about how we know what we know.

1. *Quality (time) over quantity*

One of the key ingredients to creating a meaningful learning experience in the museum is time (Tishman, McKinney, and Straughn 2007: 60–63).

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[13] For an overview of this method, see Chatterjee, Hannan, and Thomson 2015; Duhs 2010; and this short resource on "Object based learning for school groups in museums" from the Museums and Galleries of New South Wales.

Engaging with a single artifact for an extended period pushes students to go beyond *looking at* it and endeavor to really *see* it (Roberts 2013). Regardless of the age or level of learners I am working with, I almost always begin my object-based teaching with the slow and careful process known as *close looking* (a form of slow looking; Tishman 2018). This is exactly what it sounds like: taking more than just a passing glance at an object in order to connect with and explore it. Often this means that the group I am working with will see fewer objects than on a traditional museum tour. However, they will engage in deeper inquiries when given the chance to home in on a smaller number of artifacts that touch on key themes. For example, instead of attempting to mention every object in an ancient Egyptian gallery for an hour-long visit, I might pick three or four works that give the group the ability to address broader concepts together. These might include a single object from daily life as a touchstone for a discussion about ordinary ancient Egyptians and their homes; an artifact from a burial to talk about the afterlife; and an object from a temple as a gateway to ancient Egyptian religious practice. New museum visitors can be overwhelmed by their first experience to begin with, and students in general may not recall the date ranges, dynasties, and other specific information we might traditionally give about an object. I do not expect students to retain everything they learn about an artifact, but I do expect them to remember their experience looking carefully at a few key examples. Those objects can become helpful reference points for core concepts and can help jog students' memories back in the classroom. I encourage you to choose quality time with a smaller number of artifacts over more superficial engagement with a greater quantity.

2. Prioritize the material encounter

We should never underestimate the power of artifacts to entice learners through the sheer privilege of encountering them up close. Even a modest interaction with a remnant of the ancient past—such as from behind a pane of plexiglass—is considered a momentous occasion for many museum visitors. The object's authenticity lends it a sense of prestige and wonder (Tishman, McKinney, and Straughn 2007: 58–59, 63–64; Bunce 2016), and the ability to access the past in such an immediate, unmediated way can open doors to deeper engagement. At the museum, when

artifacts are right there in front of students, educators should take the opportunity to do things that they cannot do in the classroom. Think of the museum visit as an occasion to discuss topics that hinge on the physical characteristics of the object and the group's presence in the room with it, such as its size, craft process, and condition. Focus on *materiality*, not just "meaning"—prioritize the material encounter and let conversations about traditional or curatorial interpretations of the artifact follow later.

Harvard College student Sheridan Marsh uses raking light to explore a Cycladic figurine (photo by Jen Thum).

Prior to exchanging any social, historical, or art historical information about an object, encourage students to take their time exploring it on their own using all their senses. Pose open-ended questions that rely on personal observation—a strategy that can also alleviate concerns about being "right" or "wrong"—and ask students to provide evidence for their interpretations based on what they see in front of them, rather than what they may have read in secondary sources. For example, what material do you think this artifact was made from? How, or with what tools, do you think it was made? What do you see that led you to those conclusions? Can you point this evidence out to the rest of the group so they can see for themselves?

Some learners will have the option of the ultimate material encounter: museum visitors are sometimes allowed to handle or otherwise closely

Kate Smith, Head of the Paintings Lab at the Harvard Art Museums, leads a close looking exercise outside of the gallery for a small group of students with a Roman-period mummy portrait (photo by Jen Thum).

explore artifacts in certain contexts, such as with teaching collections. If you get the chance to offer your students a tactile or near-tactile[14] learning experience, I strongly encourage you to take it. Such experiences present a stark contrast to the cultural norms for engagement with other types of museum object and can create a sense of welcome and accessibility that students might not have envisioned from seemingly high-brow institutions. Having the privilege to touch objects that have managed to survive thousands of years despite their long journey from find site to museum can give students a better sense of how important it is to protect and preserve archaeological heritage. As Anne Tiballi puts it, placing one's fingers where the fingers of an ancient person once were "is a startlingly intimate act" that can connect a student to the ancient world more than traditional, passive learning activities (2015: 57). Object handling has also been observed to have a long-lasting effect on memory, often more so than text-

[14] Such as experiences where visitors watch museum staff or instructors handle or otherwise manipulate artifacts. 3D-printed models of artifacts also have a place in this type of learning, although the difference between their usually plastic material and that of the original artifact, and the encounter with a copy rather than an original, may alter the experience to some degree.

Yan Yang, Curatorial Assistant for the Collection of Asian and Mediterranean Art, leads a large group discussion about the production and symbolism of Chinese bronzes at the Harvard Art Museums (photo by Jen Thum).

based learning (Romanek and Lynch 2008: 284).[15] The same types of questions outlined above can be used when students handle or closely observe others handling artifacts, but the experience can be augmented with questions about an object's weight, texture, smell, inner surfaces, and other elements not fully comprehensible in a gallery setting. When learners undertake activities like this, I often like to ask whether anything surprises them about an artifact now that they have the chance to engage with it in such an intimate way. Asking this question of your students is one method to informally assess the differences between their material and non-material encounters with a certain type of artifact.

Material encounters like those described above can be structured in a variety of ways. I often like to do some initial close looking with a whole group of learners around a single object and then break participants up into smaller groups or pairs once they have a better sense of how to look from our larger group discussion. Armed with the tools and the confidence to explore these primary sources on their own, smaller cohorts can engage in "deep dives" with single objects of their choice, empowered both by

[15] For more on tactile engagement in museums, see Chatterjee 2008.

the ability to select an artifact based on their interests and by the more relaxed dialogue that often occurs between students when their instructors step back from the conversation. For example, I might prompt learners to partner up, find an artifact that intrigues them, and then spend 15-20 minutes with it aided by a handful of open-ended questions that parallel those we used in the prior group discussion. Writing activities can work well for this kind of engagement, too, such as See, Think, Wonder[16] or "open inventories" with bulleted lists (Tishman 2018: 12–20). If there is enough space to sit in the gallery or if the group is in close quarters with objects in a study room, I might ask students to draw the object or a detail that interests them as a way to explore it more deeply (Tiballi 2015: 62–65).[17] Any of these methods can be further structured as a Think-Pair-Share (Lyman 1981), allowing learners to make individual observations before engaging with their peers and then sharing them with the whole group so that everyone learns a bit about each of the artifacts the pairs selected.

Material engagement can also be cultivated through secondary hands-on experiences, such as the many making activities collated in this volume. Questions about sensory characteristics, craft process, and other aspects of the lives of artifacts that leave physical traces on them can be addressed with similar success in the presence of students' own creations as in the gallery or with object handling. Making activities can also serve as excellent connectors between the museum and the (art) classroom. In a recent professional development program for 6th-grade ancient civilizations teachers at the Harvard Art Museums, we workshopped the relief-carving activity in this volume (see Section 2, Thum). The activity was designed to be used as a follow-up to a future museum visit or to a classroom-based exploration of the museums' collections online. In their post-program assessment, the teachers noted that working through steps akin to those an ancient artist used to create a relief allowed them to better appreciate

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[16] For the mechanics and justification of this Artful Thinking routine, see "See, Think, Wonder: A routine for exploring works of art and other interesting things" from Harvard's Project Zero. For a full list of Project Zero's Artful Thinking routines, visit pzartfulthinking.org.

[17] The RISD Museum has published a series of short videos demonstrating a variety of drawing prompts for objects.

the difficulty of this process. Such activities get to the core of an object's materiality and open the door for students to connect what they see in the museum with the skills and techniques that produced it.

3. Address provenance and context

Over the past few years, as more people have become acutely aware of the destruction and looting of material culture in the media and on social media, I have noticed more museum visitors enquiring openly about the provenance of artifacts. Even small children sometimes ask me, "how did this get here?" Provenance may be a new word for your students, but the general idea—that artifacts have a geographical and archaeological origin—will be familiar to many of them. In the past, I did not always address how the museums I taught in acquired the objects I was teaching with, because that information did not always seem directly related to the goals of the session. However, I now realize that it is important to address both provenance as a concept and the individual life histories of the artifacts I am working with, regardless of whatever other direction the session is headed in.

Addressing provenance as a general concept can do a lot of work toward demystifying museums for learners who are not familiar with the chain of custody from excavation to (usually foreign) institution. Discussing this subject also implicates the history of collecting artifacts for museums and private collections, a practice whose roots lie in colonial endeavors. Beyond this, acknowledging the topic of provenance underscores our contemporary responsibility to course-correct in situations where artifacts were obtained by what we now consider to be irresponsible means, and to treat the places where our collections originate and the people who live there today with respect and sovereignty over their own material culture.

Addressing the provenance of an individual artifact at the center of your teaching can augment students' understanding of its life story and encourage them to view the post-ancient chapters as important parts of that story. Crucially, it can help learners understand that the artifact was decontextualized from its original context and/or from a larger group of objects that belonged together. With the aid of complementary resources—such as in the form of photographs, site plans, and maps, either from the

find site of the object in question or pertaining to similar objects—educators can use discussions of provenance as a bridge to discussions about archaeological context. How and where was the artifact used (or left) in antiquity? What was excavated along with it? What might these relationships to architectural features and other artifacts tell us about its place in the lives of ancient people? What information is lost when the object is removed from its archaeological context and isolated in a museum? Questions such as these help ground the object in the past, even as students encounter it in our present moment.

4. Give personhood to ancient people

Sometimes we get so wrapped up in talking about an artifact that we neglect to give space and a voice to the ancient people who made and used it. Whenever a personal name is attached to an artifact—in an inscription, for example, or by archaeological context—I encourage you to center that person in your teaching. In ancient Egypt, a person's greatest wish was for their name to be remembered forever. As an Egyptologist, I honor this wish in my own small way by referring to the ancient person by name when I talk about an object they once owned: for example, "this tomb relief" becomes "this relief from Niankhnesut's tomb." I regularly discuss this decision with museum visitors and encourage them to do the same when they engage with other Egyptian artifacts on their own, especially if they are discussing human remains in a museum. We will be less likely to forget that these were the possessions and remnants of real people with lives not unlike our own if we commit to using their names whenever possible.

While the names connected to most artifacts are lost to us today, there are other ways to acknowledge the people who were implicated in their creation and use. One is to commit to teaching with objects from daily life and those that were likely used by members of non-elite classes. Highlighting the importance of ordinary things to our understanding of the past can also help learners grasp the fact that archaeologists and other scholars of the ancient world are interested in people, not in rare or valuable treasures. Another way to give personhood back to ancient people is to put students in their shoes when discussing an artifact. For

example, if your group is looking at a Roman Imperial coin, you might ask them to imagine that they were ancient people living in a distant Roman province. They have just found this coin on the street—it must have dropped out of someone's pouch. What might you, a resident of this Roman province, think upon encountering this coin? What might its iconography signal to you? What implications might it have for you as a person living outside of Rome itself? Do you think that your understanding of this object would be different depending on whether or not you were literate? Artifacts can reinforce the idea that the ancient world was made up of ancient people, even if we are not able to call all of them by their names.

5. Draw connections to contemporary issues

Not everyone is a willing student of history, and even if all your students are motivated to study the past, it can sometimes be difficult to articulate why it is important to do so when it is far removed from the present day. Nevertheless, I encourage you to make connections between the concepts evoked by artifacts and the issues we face in our lives today. These links underscore the fact that we are not so different from ancient people, and they give students a more nuanced perspective on the lessons the past can teach us. One way to make these connections in the museum is through a straightforward comparison that draws on first-hand observations and personal analogies. Does this object's shape, material, or design remind you of anything you know from your own life? Is there a type of object that we use today to serve a similar purpose? Another, more theoretical way is to relate contemporary social issues to material from the ancient world. The whitewashing of Classical statues and the appropriation of the ancient past to further white supremacist agendas is a great example of one such connection (Bond 2017; Talbot 2018),[18] as is the idea that the ancient world was a diverse and interconnected place, as evidenced by objects made from imported materials and those whose visual elements are the result of cultural syncretism. Drawing connections

[18] See also Pigments of Your Imagination, a coloring book with works of art from the RISD Museum by the Museum's teen group.

between artifacts and our world today can unite personal experience, material engagement, and people across time and space.

6. Be clear about how we know what we know

I've saved this principle for last, but it is arguably the most important. In a world where expertise is increasingly disregarded or viewed with suspicion and can be invented by anyone with a social media channel, it is crucial for students to understand the well-researched theories, methods, and types of evidence that lead scholars of the ancient world to form the hypotheses and conclusions that they do. As tangible evidence of the ancient past, artifacts in museums offer an opportunity for educators to explain how the research process works in a comparatively concrete manner. For example, what signs might a researcher look for on a given artifact to form a hypothesis about its use? Its age? Whether or not it was once painted? These types of questions provide a nice analogy for students' own close looking with artifacts, as described above: scholars of the ancient world also use evidence to support their conclusions, just as we did in the gallery. They also offer the chance to explain that we do not always have enough evidence to draw a hypothesis, and that it's perfectly acceptable to admit that.

Discussions of how we know what we know about artifacts and the cultures they belong to can also serve to introduce learners to the scholars who work on them, reinforcing the idea that expertise is hard-earned yet accessible to those who want to learn from it. In 2015-2016, I co-curated an exhibition at the Haffenreffer Museum of Anthropology with my colleague Julia Troche that centered precisely on this idea. *Uncovering Ancient Egypt: Ancient Crafts, Modern Technologies* told the stories not only of the teaching collections at Brown University, but also of the scholars in Egyptology, archaeology, medicine, and materials science who are actively investigating these artifacts today (Thum and Troche 2016).[19] A major aim of this exhibition was to demystify the research process and humanize the researchers themselves, linking modern names and faces to the ongoing study of the ancient world. Visitors enjoyed learning about

[19] See the Haffenreffer Museum's page for this exhibition for more information.

the different methods scholars use to investigate the lives of artifacts and were able to dig deeper based on their own interests using an interactive iPad interface with modules for both Objects and (Research) Technologies.[20] Discussing the research process can introduce students not only to how we know what we know, but also to a cohort of role models and trusted sources to turn to.

Learning from objects first-hand is key to creating a deeper understanding of and appreciation for the past among learners of all stripes. Artifacts can take abstract concepts and make them real for students: these objects become material touchstones for questions, contemporary issues, and the people of the past. Museum collections have the potential to activate the ancient world for visitors, and with the above six principles in their toolkits, it is my hope that educators of all kinds will endeavor to create supportive environments for that activation in new and exciting ways.

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[20] The content of the iPad interface is available online as a clickable PDF.

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Dig Doodles: Teaching Archaeology through Accessible Illustration

Hannah M. Herrick

Introduction

Archaeology is a visually rich discipline that invites public interest and excitement. Consider the many depictions of the ancient world as published in news articles and embellished in documentaries—these segments are appealing both for the truth of their stories, but also for the imagination they inspire. Some archaeological finds such as golden Egyptian sarcophagi or Mesoamerican pyramids are recognizable worldwide, and yet the unfamiliar worlds they represent still spark a sense of curiosity for the observer. For the people of today, these objects have histories all their own, with the capability to reveal more about human life in past times and places. This is what excites us about archaeology: it is the quest to reveal these ancient stories held by beautiful, unfamiliar objects.

However, archaeology is a broad, multi-faceted science that typically involves less pomp and circumstance than the public imagination may anticipate. Many archaeologists never excavate ancient tombs or discover large monuments during their careers. Archaeologists aim to study people, rather than "find" objects from the past. Much of what archaeologists do involves activities such as reading, writing, measuring, counting, cataloguing, drawing, walking, translating, mapping, photographing, inspecting finds, and using scientific instruments. These activities may seem less exciting than the image of uncovering ancient treasure, but they offer a more valuable look into the science of archaeology and the conservation of world heritage. These activities tell us what archaeologists actually do. Teaching archaeology with an emphasis on the process of "doing" archaeology (rather than on the most exciting or monetarily valuable archaeological artifacts) translates this value into learning about the scientific method, biology, geology, environmental science, geography, history, culture, languages, and more. The issue then becomes: how can we re-instill some of the wonder and curiosity inspired by the public perceptions of archaeology back into teaching about its less-glamorous reality?

One approach to teaching the "nuts and bolts" of archaeology has been explored in the creation of Dig Doodles, a new public outreach project run by archaeologists passionate about education. Dig Doodles is a self-identified "community-based online learning project" with the goal of educating the general public about archaeology and the ancient world through illustrations and accessible information. These colorful images of archaeological tools, concepts, or objects are paired with descriptions using plain, clear language, making the information understandable to a wide age range (Figure 1). While Dig Doodles maintains a website, the project has also harnessed the use of social media to bring archaeology to a wider audience by sharing their content on both Twitter and Instagram (@digdoodles). Dig Doodles also solicits questions and requests for "doodles" from its users, creating a dialogue between archaeologists and individual learners to better teach about aspects of archaeology which people are eager to understand. Because of its focus on accessibility and community-driven inspiration, Dig Doodles is a powerful tool for teaching archaeology through its colorful illustrations created with approachability and appeal in mind.

Figure 1. A snapshot of some of the "doodles" created for Dig Doodles. Pictured (from left to right) are: "trowel", "site", and "notebook." Images courtesy of Dig Doodles.

The Power of Illustration

Thousands of years before we could take photographs or record videos, we drew pictures to visualize our world, and to share our experiences and thoughts with those around us (Figure 2). Illustrations are the cornerstone of Dig Doodles. Its playful illustrations of archaeological objects and ideas are a large part of what makes the project both useful and unique. The project's choice to place illustrations at the center of its educational efforts comes from the benefits of illustrations over other visual depictions. What are these benefits, and what makes them so powerful?

Figure 2. Rock art depicting animal-like figures on "Lion's Slab", probably created 6,000 years ago at the archaeological site Twyfelfontein or /Ui-//aes, Namibia. Image by Thomas Schoch, used under CC-BY-SA 3.0. (http://www.retas.de/thomas/travel/namibia2003/index.html).

While the meaning or purpose of ancient drawings like the rock art shown in Figure 2 may be more complex than the straightforward representation of animals an artist may have seen (Kinahan 2018), the illustrations of today usually depict an object, scene, idea, or concept in a concrete, recognizable way (Anglin et al. 2004). In short, we expect an illustration of an apple to look like the apple it is supposed to represent. However, if we are only after a perfect representation of an object, wouldn't we use a photograph to get the most accurate depiction? We value illustrations for a different reason: illustrations convey knowledge and perspectives about

their subjects beyond the visual depictions of a two-dimensional photograph.

a) A photograph of the Roman Period site Vindolanda, in Northumberland, England. Image by Steven Haslington, used under CC-BY-SA/2.0.

b) The Dig Doodles illustration for the term "site", loosely inspired by Vindolanda.

Figure 3. The impact of a photograph versus an illustration.

The special ability of illustrations to depict perspective as well as their subjects has been examined by psychologists in a few ways. In particular, the value of illustrations has been studied in research focusing on how humans see things, visualize them, and learn. One key finding is the psychological theory that illustrations are made by people with their own unique perspectives in order to share a message (Kenneth 1985). For example, Figure 3 shows two images—one a photograph and the second an illustration—with the same subject matter. In this case, the photograph depicts the Roman archaeological site of Vindolanda, and the illustration was inspired by the same site. While the photograph may show us the site's scale and surrounding landscape more closely to the way we might view it with our own eyes, the illustration shows us details about the site we may have missed in the photograph. We can see that the artist wanted the viewer to know that the site has more than one type of feature, including building ruins and a circular object (perhaps a well or kiln), in addition to an ongoing excavation unit. The illustration also shows us that

the artist believes that the hills on the surrounding landscape are a critical part of this site, rather than separate from the rest of the scene, as one might feel when viewing the photograph. As the viewer, we can then think about the illustration to create meaning in it for ourselves—for example, by viewing this illustration, we can better understand that Vindolanda is an active archaeological site with multiple types of material remains (Gombrich 1969). However, the illustration's journey doesn't end there. The visual details shown to us in an illustration can then become more apparent in our real-life observations (Gregory 1970). For example, we may notice that there are unique landforms—like Vindolanda's hills—close to other archaeological sites. In turn, we may wonder if those landforms are also important to the archaeological sites nearby.

Today, illustration's dual powers of visualization and perspective-sharing play a critical role not only in modern living, but in the practice of archaeology as well. Visually depicting archaeological sites, objects, and data through illustration is standard practice alongside newer technologies like photography and digital modelling (Goddard 2000). Archaeologists illustrate a number of things while "doing" archaeology, including sites, maps, trenches, stratigraphy (the layers of natural or human material found during excavation), features, and artifacts. Not only do these illustrations help to communicate information from one archaeologist to another, but they also serve as a valuable record of material lost by the destructive nature of archaeological excavation—after all, once excavated, we can never put a site back as it was found (Goddard 2000).

Beyond the process of excavation, archaeologists use the visualization of archaeological data through illustrations to help make sense of their findings (Gibbons 2010). They also use illustrations to help share the information they learn with the public. For example, illustrations are used to recreate images of past peoples or their lives, giving us a visual depiction of what archaeologists understand and imagine about the human past (Moser 1996).

Aiming for Accessibility

Using illustrations in teaching archaeology is a step towards making the everyday business of archaeologists more accessible. Not only do illustrations add meaning and perspective to their subject, but they also make technical or abstract concepts more readily understandable by a broad audience, especially when accompanied by clear descriptions (Mayer and Gallini 1990). Illustrations help us engage with their subjects and to understand and remember them more clearly; this is especially true for children (Anglin et al. 2004). While the content in Dig Doodles is targeted towards audiences of all ages, the colorful illustrations are intended to particularly appeal to the curiosity of younger students who may not have heard of archaeology before. In this way, Dig Doodles may help instructors create a culture of interest for archaeology as a subject.

However, an illustration cannot be an effective tool for teaching if it is not seen by an audience. Maintaining accessibility for a wide audience of diverse ages and experiences is a key goal for Dig Doodles. This equality of access is especially critical, given that students in public schools may not have the opportunity to engage with curricula covering archaeology or other "non-essential" subjects due to disparities in financial resources in different socioeconomic settings (Perry and Lubienski 2020). To counter this inequality in education, Dig Doodles is free and available to use on its own website. Dig Doodles is further accessible through the social media platforms Instagram and Twitter, making its illustrations and information about archaeology mobile and available in different formats.

As mentioned above, Dig Doodles takes a community-focused approach in its efforts. It aims to create content based on the needs and interests of its users. In its early stages, the creators of Dig Doodles based their content on questions about archaeology that they had been asked by elementary school-aged children. Now, users can submit questions about archaeology through the Dig Doodles website or social media accounts. The website also maintains a "List of Community Contributors," which displays the names of individuals whose questions or requests have resulted in the creation of new Dig Doodles content. This commitment to connecting with

their everyday audience creates a working dialogue between Dig Doodles creators and their users, and helps those users engage with the archaeology-based content in a more personal way. Additionally, Dig Doodles' creators seek input from other archaeologists with different backgrounds and specialties in an effort to reflect both accessibility and diversity in their content. This multifaceted approach to community-focused education makes Dig Doodles an evolving project, with the ability to continually improve its efficacy in teaching.

How to Use Dig Doodles

In practical terms, how can Dig Doodles content be used as a tool to teach archaeology in a more formal setting? The project's pared-down format (consisting of an illustration and accompanying text) allows for flexibility in how its content can be used. At a base level, Dig Doodles illustrations can be used in traditional lecture slides to add visual interest and increase understanding on archaeological topics. However, these doodles can also play a part in engaging learners with thinking about archaeology on a deeper level. For example, a Dig Doodles illustration could be used to introduce an unfamiliar topic to new learners, or to springboard a discussion on an archaeological subject to more advanced students. The attention-getting and exciting illustrations may spark curiosity in these situations in a way that reading or listening may not. Additionally, the ability to create questions about these doodles or other archaeological topics, submit them to the Dig Doodles team, and then see those questions answered by archaeologists in a similarly accessible manner deepens the engagement that learners have with the subject of archaeology. In this way, the users become part of the community education effort fostered by Dig Doodles.

Dig Doodles has taken measures to make its illustrations suitable to a variety of teaching situations. Each doodle is sorted into a specific subject category and tagged with keywords on the website. Users can browse a category (such as "Tools") to see all doodles relating to that topic. An instructor might choose to use these categories to inspire lesson plans or discussions. However, the Dig Doodles illustrations aren't permanently

divided into fixed, mutually exclusive sets—doodles from any category can be combined to create a custom set of illustrations for an instructor's unique needs. Dig Doodles content can easily be used alongside other supplemental materials from other educational content creators. Dig Doodles helps to facilitate this by tagging social media posts with relevant hashtags, such as "#stratigraphy" or "#artifact," which allows them to be virtually connected to other archaeology-related educational media on these platforms.

The Future of Dig Doodles

Archaeology is an exciting subject. Teaching archaeology should be equally exciting, even while teaching about the "behind-the-scenes" work separate from the artifacts and narratives that usually capture the public's curiosity. Dig Doodles attempts to instill some magic into the teaching of archaeology in a way that helps this subject become more accessible to learners of all ages.

This project is currently in its infancy, and there is still more work to do to continue making archaeology and the ancient world accessible to all. In addition to the development of more illustrations, the creators of Dig Doodles are planning new ways to further its mission. These improvements include translating the text descriptions into languages other than English; incorporating the stories and experiences of diverse archaeologists (with a special focus on the representation of archaeologists identifying as Black, Indigenous, and/or People of Color); sourcing and maintaining a list of free, online educational resources about archaeology; and continuing to develop a dialogue with the Dig Doodles user community to create an accessible learning space. The Dig Doodles creators also welcome input and suggestions for striving towards this goal. Archaeology can and should be available for any interested individual to learn—in a colorful and understandable way.

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Open Access to Ancient Worlds: Why Open Practices Matter

Alena Buis

Open educational resources (OER) are teaching, learning, and research resources in the public domain or released under an open license that allow others to re-purpose and use them freely. These materials include textbooks, readings, multi-media files, software, assessments, and even entire courses. This handbook is an open educational resource. Open educational resources and the open pedagogical practices they enable are increasingly important tools for the teaching of the ancient world. In this essay, I discuss strategies for using OER, rather than traditional textbooks, and why these strategies enable more accessible and inclusive pedagogies.

Since the fall of 2019, I have taught the first part of the art history survey covering Prehistoric to Gothic art using open educational resources. In the past, when I taught the first half of the survey course I assigned Janson's *History of Art: The Western Tradition* (Janson, Davies, Denny, Hofrichter, Simon, Roberts, 2010) as required reading. Like many other art historians, when I was hired I was given a copy of Janson's and used that to structure my survey courses. This text along with Stokstad's Art History (Stokstad, 2017) and Gardner's Art Through the Ages (Kleiner, 2013) have long served as the foundation of introductory courses and guide much of the pedagogical practice in first year art history classrooms.

Despite revisions in the late 20th or 21st century many the origins of these canonical narratives are ideologically problematic. In his tracing of the "Origins of the Art History Survey Text", Mitchell Schwarzer makes a direct link between the teleological narratives by some of the first survey texts written in the first half of the 20th century and contemporary identity formation in Germany. He noted that "writing art history on a global scale cannot be distinguished from nation building." Survey texts are not neutral. They reflect the biases of their authors and their times. I noticed like others had, Janson's approach privileged certain artists – white men – at the expense of a more inclusive approach to the diversity of visual and material culture from around the world. According to Larry Silver, in a

College Art Association assessment of teaching materials, "The standard textbooks do not begin to address our needs… students who take art history have become increasingly diverse—with interests more engaged with gender or social issues than a generation ago—and they have wider backgrounds."

Traditional survey texts are further inaccessible due to their costs. Janson's History of Art can cost students as much as $324.99 CAD ($225.00 USD). Stokstad's Art History Vol 1 is currently available on Amazon for $268.00 CAD and Gardner's Art Through the Ages hardcover is $199.95 CAD (140.00 USD), and the loose-leaf version is $240.52 CAD (168.00 USD). I have noticed that due to these exorbitant prices, students are not purchasing the textbook, or if they are they are purchasing a cheaper copy, of a previous out of date edition. It is very difficult to learn the material when you do not have access to the textbook. My anecdotal findings are further backed by research. One survey of 320 post-secondary students from 12 institutions in my province of British Columbia found that 54% of students had not purchased one or more required texts, 27% had taken fewer courses, 26% had dropped or withdrawn from a course, and 30% had received a lower grade, all due to textbook costs. Faced with this grim reality, I have made major changes in the materials I assign students. Like Michelle Millar Fisher, I have ditched the traditional art history survey textbook in favour of open educational resources. For each class of 35-40 students that is a savings of over $12,000 CAD (9,000 USD).

There are currently very few open textbooks available for the studying the ancient world in any discipline. Fortunately, the lack of easily accessible material leaves an opportunity for art historians, archaeologist, anthropologists, classicists, and educators in other related disciplines to contribute to the growing field of open education. This handbook is an important contribution to OER for teaching and learning for the ancient world. Hopefully it will inspire the creation, adaption, and adoption of open textbooks in a variety of different classrooms.

Another resource for the study of the ancient world can be found on Smarthistory.org. Created by Beth Harris and Steven Zucker, the non-profit

website provides over 880 videos and 2000 essays and has had over 48 million views. Ultimately it is a free, peer-reviewed online art historical text book. One contributor, Bryan Zygmont has explained it this way: "Free. For you, me, and for our students. Free, indeed, for the world… It's written by art historians. But not just art historians. It's written by art historians who have a sincere desire in teaching and pedagogy. It's a wonderfully useful site…" Sal Khan the founder of Khan Academy, an online educational platform that utilizes *Smarthistory* material recognizes Harris and Zucker's contribution to making art more accessible, noting they "have not just democratized art history in profound ways, they've helped democratize art itself."

Open education, however, is not just about open educational resources. For many teachers the real value in OER, is in the open pedagogies (OEP) it enables. Accessible resources like *Smarthistory* encourage innovative pedagogy. According to The Cape Town Open Education Declaration, OEP draw "upon open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues." These include promoting new approaches to assessment, accreditation and collaborative learning. Catherine Cronin has observed that it is not just the creation, use, and reuse of open educational resources (OER) freely accessible openly licensed text, media and other digital tools that are important. Perhaps even more significant is the "open sharing of teaching practices." This handbook, created in the spirit of sharing teaching practices is an example of open pedagogy. It invites other instructors to retain, reuse, revise, remix, and redistribute various lessons.

My contribution to the following portion of this handbook is based on an activity I have done in class (see Buis in this volume). Having students share their knowledge in small low stakes group activities is just one way to empower learners to find their own voice in a conversation on ancient artistic production. Doing so positions them as not only the consumers of content, but asks them to collaborate in the production of knowledge. I have also developed other "choose your own adventure" type of assignments that give options for students to choose their own method for

demonstrating knowledge. These resulted in assignments that were far more creative than I had anticipated. Here are a few examples of some of the ingenious ways they built on the content they reviewed on *Smarthistory* and synthesized their own understanding.

One student researched Ancient Roman hairstyles and documented her attempt to recreate them using similar techniques. She viewed the *Smarthistory* resources on *Portrait Bust of a Flavian Woman (Fonseca Bust) (early 2nd century CE)* and through the practice of close looking tied her exploration of hair styles and beauty practices to looking at comparables, or as Beth Harris describes in the video as "comparanda." This assignment is a great example of a student making connections between the objects and images viewed in class and her own visual and material culture. She reflected that the process provided her with valuable insight into the daily routines for a woman living in Ancient Rome. This project was awarded a runner up prize in Langara College's Open Student Scholar competition. The student explained in her reflection that "This non-traditional approach enhanced my enthusiasm, which in turn aided me immensely in the retention of facts, which is something I generally struggle with."

Another student was inspired by the very format of the *Smarthistory* videos I assigned, and used a similar format to demonstrate her understanding of Ancient Roman sculpture. Rather than regurgitate information in a standard essay, she wrote a script for a *Smarthistory* video based on a fictional Roman sculpture. She drafted a script for Steven Zucker and Beth Harris outlining the work's history, facial features, and support structure. Her outline even included references to the visuals that would be shown as a comparison, and of course the audio was indicated as "uplifting piano music." The student's work demonstrated her efforts in the highest register of Bloom's Taxonomy, create. Christina's work inspired me to create an option for students in future classes to write their own scripts, or even videos on works not yet covered by *Smarthistory*.

In her work on student-centred activities and team-based learning, Laetitia La Follette has summarized Bloom's taxonomy of Cognition and mapped it in terms applicable to art history. Create shows a student can "assemble

cogent, independent thoughts and form an argument based on various texts or objects described and discussed in class and put them together in a creative new design." And that's what another student did when he wrote a short story describing a nineteenth century archaeologist's discovery of an ancient Egyptian tomb. He reflected on the process, "I really believe I learned way more in writing stories than writing a regular standard essay. Being able to do what I love and being interested in my work instead of just fulfilling a required assignment helped me grasp the concepts in a way that helps my brain absorb information."

This student's writing is an example of a sustainable assignment. Unlike "disposable" assignments viewed only by the instructor during the evaluation process, work's like his short story are intended for a broader audience. First writing about "disposable assignments" in 2013, David Wiley has been critical of essays and other inauthentic types of assessment tools that both students and faculty alike dislike for they "add no value to the world, they actually suck value out of the world." Traditional forms of essays are typically written only for the instructor to grade, and serve no other purpose as they are quickly discarded. In *The New Education: How to Revolutionize the University to Prepare Students for a World in Flux* (2017), Cathy Davidson lists the public contribution of knowledge as one of the top ways to create active, student-centric learning (p. 267).

OERs have been made increasingly available in recent years, but since the COVID-19 crisis they have contributed to a much smoother pivot to online learning when the pandemic forced our college to end face to face classes. Because they are openly licensed, they can be easily compiled by instructors and provided to students for use in remote learning. For the summer semester, our Art History and Religious Studies Department at Langara rejected the use of traditional textbooks, in favour of open education. All ten sections of our art history survey, and surveys of Asian art are now using a combination of resources from Khan Academy, the Helibrunn Timeline of Art History, and other museum databases for required readings. And we were not the only ones. When the coronavirus pandemic closed galleries, museums, and cultural sites around the world YouTube views of Smarthistory content increased over 70%. While the

resources had long been a valuable addition to the classroom, it became a necessity in online learning overnight.

By my calculations our transition to open educational resources will save our students over $45,000 CAD ($31,000 USD) over the semester. This surely came as a relief to many students struggling with financial instability, limited library access, and delayed textbook deliveries related to the COVID-19 pandemic. The quick transition to fully online instruction in a matter of weeks, prompted our move to a zero text book cost model but it was not the sole reason. We need to commit to not only innovative pedagogy, but also the values that underpin the open education movement – affordable, accessible, high-quality education for all. As David Wiley has pointed out accessible content like *Smarthistory* requires new approaches to the content provided, "using OER the same way we used commercial textbooks misses the point." Open educational resources and the open practices they enable are more than cost savings measures. They have the potential to open students' access to ancient worlds.

Inspiring Student Motivation through Multimodal Learning

Robyn Price

Introduction

In my experience at the University of California, Los Angeles (UCLA), it is typical for the large, history-related humanities courses to be filled with undergraduates seeking to meet their general education (GE) requirements. Because many of my students from such courses are not majors in related fields, I endeavor to make clear the value of learning such material to students of all disciplines, from English Literature to Math to History. I do this by addressing the timeless question, "Why should I care?".

We as instructors of the ancient world are in a position to open students' minds to the importance of valuing diversity. We do this by revealing the culturally-constructed nature of our modern world by discussing how other times and places were created and maintained. By asking students to draw from history as a way of exploring their own implicit biases, we can learn to recognize and celebrate difference both inside and outside the classroom.

I suggest that by making course content exploring past societies relevant in this way to the modern person, the student will find the motivation to invest in this type of learning and, as a result, be inspired to grow as an individual. Specifically, in this essay, I will share my experience implementing a multimodal writing assignment that I created to explore this hypothesis. What became immediately apparent was that simply assigning a project such as this was not enough to witness an increase in students' willingness to pursue a deeper understanding of diversity and difference. Rather, it was important that the overall course design, including the multimodal assignment, both clarified and embodied the values I sought to impart to my students. Both fostering a classroom community built on trust and inclusivity and being direct with the learning objectives of each class activity were essential for grounding and clarifying our discussions of history's significance to our present. It was in this way

that the students were motivated to seek their own improvement by becoming fully invested in the course's content.

As will be discussed below, the multimodal assignment essentially asked the students to demonstrate in a single podcast episode the course content in miniature. This meant it was a showcase for the values and ideas we discussed in class and which I partially laid out above. Thus, it was important that the course itself left space for *each* of the students to explore through various modes the value of history to their *own* life. In that way, the course itself embodied multimodal learning. Thus, we combined learning activities, such as smelling ancient perfume recipes and perusing old photographs in UCLA's Library Special Collections, with listening, watching, discussing, and reflecting on various genres of media.

The course and its final assignment that I designed to investigate the effects of multimodal learning on student motivation was undertaken in the context of the Writing II requirement for undergraduate students at UCLA. The Writing II requirement at UCLA expects students to complete around fifteen pages of revised prose, helping them to become better writers and to be introduced to the ways writing helps us to "discover, evaluate, and disseminate new knowledge."[21] I have asked my students in such classes why they have chosen that course, and, while some do indicate a general interest in the course topic, the typical response by far is "to fulfill GE credits." No student response has indicated an interest in the writing skills to be learned, which might suggest a general unawareness of the applicability of such skills to their own disciplines.

So, I sought to develop a multimodal course that would offer Writing II credit that emphasized the general relevance of the past to the lives of all modern peoples. I hoped that presenting this course theme in a multimodal way would motivate students to become invested in the course material and to seek to embody the course's learning objectives. With this decision, I began to investigate the value of multimodal learning and its relationship to increasing student drive.

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[21] "Writing II Requirement." Accessed 17 July 2020.

Effects of Multimodal Learning on Student Motivation

Modes are the smallest cultural elements that still communicate meaning. They might be visual such as a shape, color, or text, but also might be received through other sensory organs, such as textures, movements, sounds, or spatiality (Gavelek and Roof 2016: 36-7). Therefore, multimodal learning is learning that takes place through a variety of modes, "combining several communicative mediums" (Darrington and Doussay 29). Often such learning takes place through the body and its senses, thus breaking down the mind/body dualism that plagues formal education in the United States (Lewis and Crampton 2015).[22] Multimodal learning pushes back against this essentializing perspective and seeks the construction of meaning through the incorporation of the student's mindful body. A mindful body, then, is one that learns by reflecting on the experience of and the exposure to one's environment.

Formal education in the United States is commonly verbocentric in that student achievement is largely based on their ability to read, speak, and write. While these are important skills, this method of instruction can be biased and non-inclusive of all abilities and backgrounds (Gavelek and Roof 2016: 37). Because modes are socially, culturally, and historically contextual, multimodal assignments and instruction methods promise to promote more inclusive practices in classrooms by making learning personal and experiential (Gavelek and Roof 2016: 39). Multimodal coursework allows for students who are composed of a variety of backgrounds and histories to experience learning in ways that both comfort and challenge them, dancing between the familiar and the unknown. In this way, they become exposed to new perspectives and ways of experiencing the world, learning how meaning might be created through multiple modes (Picciano 2009: 7; Gavelek and Roof 2016).

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[22] In the seventeenth century, during the Enlightenment, this dualism between logic and reason (the mind) and the senses (the body) became cemented in Western culture. Ultimately, rationality and positivist science won out over the emotional, sensing, body. See Zembylas 2016.

Multimodal composition is an assignment that asks students to incorporate a variety of modes into their research. A podcast assignment that asks students to use music, academic journals, modern cultural examples from a variety of contexts, archival materials, interviews, verbal descriptions of images, and their own ideas and experiences to explore a larger, cultural theme or pattern is an example of this. Such a project incorporates visual, aural, linguistic, and technological modes to explore a topic. Thus, "multimodal" describes the process undertaken to reach a goal, rather than the end-product itself. Students, therefore, can both receive instruction through multimodal methods and also employ multiple modes in their own work. While multimodal assignments can stand on their own, and do offer several advantages over more verbocentric practices, I would suggest that they function best when supported by and are integrated with a course design that is also multimodal.

Incorporating multiple modes into a writing assignment can be beneficial for the student. By offering an outward-facing multimodal project, such as one to be published online, it might be possible to increase student motivation to participate. For example, Boscolo and Hidi (2007:4) argue students who struggle with writing often do so because they are unmotivated, seeing writing only as a "routine and rigidly scheduled task, aimed almost entirely at assessment" and unrelated to their own lives. In one case study, by having their students direct their writing to an authentic audience, the authors found the students were more motivated to learn to write and so there was a decrease in the number of failing students (Darrington and Doussay 2015). Community support for writing is also an important feature for such writing projects, providing students with a trusted space to discuss with their peers their experiments with different modes and to revise their writing.

Stimulating student interest in the act of writing by having an attractive, even collaborative project which is readily perceived as useful by the students themselves should increase feelings of competence and ability in participants (Boscolo and Hidi 2007: 6; Khoo et al 2013). Such projects, like that discussed by Faris et al (2019) demonstrate students do seem to thrive in such circumstances, though there is often more work required on the

part of the instructor. DePalma and Alexander (2015:185) on the other hand suggest that multimodal composition induces "frustration, anxiety, and feelings of failure" in students unfamiliar with this new-to-them way of communicating. It is for this reason, however, that I here stress the importance of developing your overall course to be multimodal, supporting the project and the values integrated therein

Motivation or the "will" to write, according to Boscolo and Hidi (2007) is often closely tied to the "writer's self-perception of ability, as well as to the ways and tools [they] can adopt for self-regulating" (2). While community-based learning might keep students driven to participate and perform, the variety of sources from which a multimodal writing project draws offers the student a vast toolbox from which to employ their strengths and develop the necessary skills needed to complete their assignments. Students will learn to express their arguments with their own voices, relating their own experiences and interests to their research. DePalma and Alexander (2015:187) note, however, that it is important for multimodal projects which are "creative, entertaining and relevant" to not be perceived as contrary to academic writing. It is for this reason, I found it very important to not discuss with my students their podcast scripts as something distinct from their past experiences writing academic papers. Rather they were asked to employ their knowledge of developing strong arguments and collecting and assessing source material in the presentation of their research findings. The difference was the sources they could consult were less restricted and the medium for communication was a public-facing podcast.

The Course and Project

I developed a course titled Now as Then: A Cultural Examination of the Reception of "Ancient Egypt" as Myth Through Time which was centered around students completing a major, multimodal writing project, namely a podcast. The seminar met once a week for three hours. The course itself was developed as part of the Cluster series course GE30: Multidisciplinary Approaches to Myth. The Cluster program at UCLA incorporates several different series of classes, each with an enrollment cap of 200 students and 5 Teaching Assistants (TA). Each series consists of three consecutive

courses which are taken by first year undergraduates. Opting into a Cluster is optional, but each series offers several General Education (GE) credits, including a Writing II credit. While all students of each series take the same course in the Fall and Winter quarters, they are asked to select a seminar designed and led by a Graduate Student Instructor in the Spring.[23]
Many students wait until their final years to complete their GE credits. By opting into the Cluster series, students free up their schedules in their upcoming years to focus on their areas of specialization. This results in a cluster series that provides STEM related GEs having mostly Humanities, Arts, and Social Science students, while Humanities or Social Science cluster series having mostly STEM majors.

I taught a Spring seminar twice. The first iteration had 20 students and was conducted in-person in the Spring 2019 quarter. The second iteration of the course had 6 students and was held remotely over zoom in the Spring 2020 quarter. Rather than teaching the whole cluster series across the 2019-2020 school year, I only joined to teach in the Spring quarter. Because of this, the students were not as familiar with me as they had been the previous year when I had been, for many of them, their TA for two quarters in a row. This is likely a contributing reason for the low enrollment in the Spring 2020 quarter.

The learning objectives for this class were as follows:

1. Researching Responsibly: Students will learn how to assess (multimodal) sources and how to interpret them within their own context. Skill development will include critically analyzing the strengths and weaknesses of arguments and best practices for supporting their judgements with additional research. Additionally, students will acquire project management skills, including how to tailor evidence in a way that is both concise and relevant to their arguments.
2. Reflecting on the relationship of the Past to the Present: Through an exploration of the reception of Ancient Egyptian culture through time, students will develop an understanding of the relevance of history to

[23] Note that UCLA operates on a quarter rather than a semester system. Three quarters make up the school year, each being 10 weeks long.

their own lives. In discussing how an individual's perspective and experiences alters their understanding and interpretation of contexts, students will come to understand how a 5000+ year old culture still affects them today.

3. Writing to an audience: Students will practice several types of writing throughout this course which will encourage them to consider how style changes depending on audience. From a script for a publicly listed podcast, to reading reflections, free writes, and outlines, students will develop a stylistic awareness for effective writing.

These learning objectives were developed with the concern that this class be perceived as relevant to a broad base of students with varied backgrounds. The first and third goals were written to be relevant for anyone in academia, while the second truly embodied the crux of this particular course. It was written to communicate my desire that students learn to recognize the dialectical relationship of the past to the present. It is this goal that I believe is crucial for anyone who operates in the modern world, negotiating relationships and consuming media.

The content covered in this class focused on how we can study Ancient Egypt and the biases inherent in the sources we use. We began by investigating Ancient Egyptian sources, focusing on the importance of recognizing the genre and context of ancient materials. Then we moved into the biases inherent in later Ancient Greek sources that discuss Ancient Egypt. This culminated in a detailed discussion of Edward Said's Orientalism (1978) and its relevance to the discipline of Egyptology. The last part of the class was spent discussing topics like Afrocentrism, consumerism, and religion, and the way these topics alter our understanding of and the histories written about the Ancient Egyptian people.

For the podcast assignment, students were instructed to select an element of Ancient Egyptian culture with which they had some familiarity, such as the pyramids, or 'King Tut.' The overall requirements for the assignment were left intentionally open. The students were tasked with developing a podcast that surveyed and analyzed how the use and reception of an

element of Ancient Egyptian culture changed across time: by the Ancient Egyptians themselves, by the Ancient Greeks and/or by early modern travelers, and by a culture today. They were asked the question, "How does context (space, place, time, etc.) affect the reception of cultural materials and how does this bias our interpretation of them?". I encouraged them to incorporate diverse media into their podcasts, but I left the general organization and content development up to them. In addition, I helped connect each group with a graduate student at UCLA that they could interview for their podcasts. Additionally, I worked with Courtney Jacobs of UCLA's Library Special Collections and Librarians Simon Lee and Katherine Kapsidelis to show the students how to incorporate archival materials and library sources in their studies.

In 2019, the students worked in groups of three or four. In 2020, the students chose to work individually, likely as a result of the limitations of the remote platform on which we were operating because of the COVID-19 pandemic. Small pieces of the final project were due each week. Each class in the first iteration of the course included time for the students to work on their podcast assignments collaboratively. This class time gave me the opportunity to keep track of their progress and group dynamics as the quarter progressed, as well as making it easy for them to approach me with their questions as they developed their projects. The second iteration of the course did not include this time. The project's scaffolding was designed to help prevent procrastination and to help demonstrate for them how writing is a process and requires planning, revision, and re-thinking in order to produce a finished product. After the submission of their audio files, show notes, and audio consent forms, the students assessed their final projects and self-progress. With their consent, the students' podcasts and show notes were then uploaded to the internet.[24]

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[24] All students consented to having their work posted online. If they had chosen to not upload their projects, it would not have affected their grades. The students' podcasts were organized and posted forming the series Now as Then, which can be accessed here: http://dal.ucla.edu/robynprice/category/podcasts/

The deadlines for the various portions of the project were as follows:

- Week 2: Proposal
- Week 3: Annotated Bibliography (5 sources)
- Week 4: Schedule and Outline
- Week 5: Annotated Bibliography (5 sources)
- Week 6: Script Draft with Interview Questions
- Week 10: Final script and audio file
- Finals Week: Individual Reflections

The overall organization of the class was designed to be a drawn-out example of what their multimodal writing projects were meant to be. Like their assignment, we covered three distinct time periods and the ways each of those cultures perceived and manipulated the history of the Ancient Egyptians (including the Ancient Egyptians themselves). Throughout the course we drew from a diverse set of media sources, including archival material, visual media like YouTube videos, VR, and the *Assassin's Creed Origins Study Tour*, academic and non-academic writings, podcasts, and material artifacts, such as scented oils and pottery sherds. Such diversity in sources helped students learn to identify sources based on genre and to recognize bias in its many forms. Additionally, we regularly made connections between our own lives and experiences with the content we were covering in class through discussion and forum posts.

The multimodal assignment was an essential part of this course, but without careful scaffolding, the clear presentation of course objectives, and the fostering of a community that valued trust and open communication, I do not believe this course would have had such an impact on the students. I found in order to increase student motivation for self-growth, regardless of whether or not the podcast assignment was completed in groups or individually, it was important to create a classroom environment that encouraged co-dependence among the students. In the classroom, this took the form of, for example, me asking the students to create the assignment's rubric or to write reflections on their responsibilities within their groups or simply as part of the class. Furthermore, the following considerations were also essential to the students' perceived success overall: 1) scaffolding the project across a series of small, doable tasks; 2)

inviting guest speakers proficient in audio recording and editing technology; and 3) asking students to analyze other podcast episodes to better understand the choices that go into designing them.

The Challenges

Online versus In-Person Multimodal Design

This course was first offered in-person in 2019 and then remotely in 2020. This difference was the result of the quick changeover to remote instruction instituted by UCLA for the Spring 2020 quarter in response to the COVID-19 pandemic. A project that was originally designed to be completed by small groups of students, now made more sense as a project undertaken individually. The assignment, which required the students to conduct an interview with an Egyptology graduate student as well as a trip to the Library Special Collections as an exercise in embodied learning now had to be re-envisioned. I could no longer expect my students to have the same kind of access to academic sources in order to conduct their research as I had the previous year. Additionally, certain multimodal activities such as the sharing of perfumes replicating ancient contexts or the handling of ancient pottery sherds seemed quite impossible at the time.

Additionally, from the onset, I found it much harder to cultivate a community of trust and openness over the remote platform than I had when working with students face-to-face. This seems to have resulted in a lessening of students reaching out to me and to one another for help. On the other hand, I found the digital platform much easier to navigate when it came to inviting guest speakers, graduate student interviewees, and diverse media for the students to digest.

As for the technical side of recording podcasts, students employed their own cell phones, computers, and headphones. Additionally, Deidre Whitmore from the Digital Archaeology Lab at UCLA offered to serve as technical support for the students as they began learning Audacity, a free audio editing software. While I did receive a small teaching grant with which I purchased additional headphones and a Zoom H1n field recorder

which the students could borrow, we found the quality differed little from them using their own devices. Having this option though was an important consideration when trying to develop a project that fostered inclusivity. I also provided the students with locations on campus from which they could rent for free the necessary equipment. In the second iteration of the course, the students recorded their podcasts using Zoom, the digital platform over which we held our course meetings.

Embracing the Multimodal

Despite incorporating multimodal design into the course overall, I found the students did have some difficulty with fully embracing the multimodal model in their projects. While I wholeheartedly believe the students grasped the larger themes presented in the course as laid out in the learning objectives, their final projects maintained a heavy emphasis on the (spoken) word. Though I encouraged them to incorporate diverse media into their final projects, including open source music or audio clips covered under "Fair Use," I should have spent more time emphasizing how non-verbal forms of media can create meaning distinct from the linguistic mode we so typically rely on. It would have been beneficial to have a small conversation with them about the verbo-centric system that we have grown up with and its limits when it comes to the creation of meaning. Additionally, some students were also hesitant to use their voices to incorporate their own emotions or reactions to the *academic argument* they were presenting, though many valued the ability to shade their meanings through voice play and tone.

DePalma and Alexander (2015: 188) discuss how multimodal projects are not about the what that is being communicated, but the how. Emphasizing this as the major distinction between a multimodal course design and project from a more traditional content-based course would likely have been a helpful way of pushing the students to take "risks" with their modes of communication. Decisions such as what your voice sounds like recorded, to what music you want to use to transition between sections, to the image you want to represent you on your show notes all affect the message being presented. It is important to be direct with students about

this distinction. Additionally, I might have emphasized more how the skills they already possessed with regard to essay writing were still effective for tackling multimodal projects.

Student Reactions

According to the student evaluations from both iterations of the course, the students recognized and appreciated the learning objectives set for the seminar. When asked what they found most interesting and valuable in the course, the most common responses included: the relationship of course themes to modern contexts; the emphasis on recognizing biases in published sources; the use of hand-on, non-book resources; as well as personal development, such as improving research and analytical skills and learning how to use audio recording and editing technologies.

A few responses even commented on how they appreciated the course was "disguised as a research project just fit for Ancient Egypt," but in actuality helped them to develop research skills and conceptual ideas which were "applicable outside of the classroom." One student commented, "Even someone who despises learning about history could find valuable information in this course."

While many of the responses from both iterations of the course did mention that they appreciated the podcast assignment, finding it fun and a creative outlet for exploring course themes, no one directly connected the implementation of such a multimodal writing assignment with their own perceived success of the course. I do not believe this indicates the assignment had no effect on student motivation, but rather suggests the students did not view the assignment as something separate from the course, but an integral part of their overall experience. For example, rather than commenting on the project or course content, another student shared how they felt "so comfortable" around their peers and how they could not "wait to carry out what [they] learned from this class and [to] tell others." This comment also points to how this student valued the community we had built together in the classroom and how that contributed to their desire to share what they learned with others.

The criticisms of the course were equally well considered, though much less consistent. Each student seemed to have a new point for me to consider when revising the course. Some of the comments responding to how the course might be improved suggested shorter class times, shorter readings, more/less time spent using technology, more time covering audio editing and script writing in class, and more time spent discussing modern issues. The Spring 2020 responses to this question focused mainly on the limitation of the remote platform and how it made it difficult to communicate and interact with their peers.

I asked the students whether they preferred podcasting to essay writing, and I was surprised to hear a mixture of responses. Most said that, though they greatly enjoyed the assignment and learned much, which format they preferred would be case dependent, suggesting for some classes an essay might be more appropriate. This opinion is in line with the findings of, for example, Khoo, Forbes, and Johnson (2013) who wrote that podcasting was particularly useful for "supporting multimodal ways of learning that value relational connections, student perspectives, and collaborative reflection" (481). Thus, it is notable that while a multimodal project such as the one presented here is a viable option for getting students engaged and invested in their learning, other types of assignments might be more appropriate for other contexts. Additionally, I found these reactions particularly enlightening given how it demonstrated that these students were considering genre and context with regard to their schoolwork, two of the essential concepts emphasized in this courses' learning objectives.

Overall, I was overjoyed with the students' careful consideration of the course as communicated through their evaluations. That several were able to identify my (not-so-) hidden agenda for increasing their motivation by presenting information in an interesting and relevant way was heartening. I do not believe the implementation of a creative and public facing final assignment that required the students to employ a variety of campus resources would have been enough to achieve the course goals. The emphasis on themes that translated ancient material into a modern context made clear how learning about the ancient world is relevant regardless of one's academic goals and personal backgrounds. For example, one

student commented on how their learning to identify bias in sources would be important because they wish to "pursue scientific research." Another student discussed how the major themes of Orientalism, Afrocentrism, and the relationship of the past to the present would help them in the future as they continue working toward "philanthropic change." What more could we ask of our students?

Conclusion

Humanizing history for our students might be the greatest calling for instructors of the ancient world. I have suggested here moving beyond the development of content-centered courses that place emphasis on the memorization of the cultural developments of long-dead societies.[25] Rather, coursework should make clear how the materials and skills being introduced are relevant to the students' lives.[26]

Such an approach to education emphasizes a desire to encourage the personal development of the student, ultimately seeking to affect the communities and relationships that they will form both inside and outside academia. Instead of assimilating unique and distant cultures into a single narrative that fits into the Western ideal, courses should ask students to study, analyze, embody, and apply critical ideas regarding diversity in its many culturally-constructed forms. Students will grapple first with such ideas in the classroom before taking what they learn with them when they leave.

In this short chapter, I have sought to demonstrate how, with some simple scaffolding and a little empathy, we, as instructors of the ancient world, might direct our students to discover for themselves the importance of humanities-based learning to their own lives and the lives of their peers. By emphasizing the value of self-directed inquiry, responsible research, and

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[25] Notably, those which focus exclusively on the lower orders of "Blooms Taxonomy." See Bloom 1956.

[26] An idea more in line with Fink 2003.

the importance of sharing knowledge with broad audiences, we are teaching our students invaluable technical and intellectual skills for formulating, writing, and presenting arguments. Additionally, by pushing them to draw from history to better understand their own worlds, we break down the barriers between the Us and the Them, between the familiar and the foreign—dissolving fear to make space for sympathy. Such destruction is not meant to de-value identity construction, but rather to highlight differences that do exist, both through time and across space. We should strive to understand these variable cultural contexts so that we might begin to build a more inclusive and equitable world.

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Tools for Digital Pedagogy and the Ancient World

Caroline Arbuckle MacLeod

Introduction

In today's digital universe integrating technology into archaeological and historical research is vital – whether that is in reference to studying texts, objects or sites, storing data, sharing data, or engaging with the public (for a range of recent examples see Bigot Juloux, Gansell and Di Ludovico 2018). Despite this emphasis on digital tools for research and community engagement, however, many lecturers and professors have been less enthusiastic about using technology in their classrooms (see also Agbe-Davies et al. 2014). Significant integration of digital methods seems to be largely reserved for the courses that focus on specific tools, such as Geographic Information Systems (GIS) or Computer Assisted Design (CAD) (see also Watrall 2016, 2019:140). This has become particularly apparent during the recent global crisis due to COVID-19, as many professors found themselves struggling to move courses online while offering the same quality of education. As we move forward, we have the opportunity to reconsider the structure of our courses and integrate available tools based on a learner-centered approach to make classes more engaging, more accessible, and more effective. By integrating these resources, we can also foster media and digital literacy, skills that are increasingly required to enter the workforce, and to critically engage with a global online community (Hobbs 2010; Martin and Zahrndt 2017). In the following discussion, I will briefly outline a selection of the digital tools available for undergraduate pedagogy in general, as well as a few examples that relate to the study of the ancient world more specifically. I have chosen tools that can be implemented in a wide variety of courses, and which do not require significant specialized technical knowledge or training. While the initial transformation of our courses will require some significant effort, the final product has the potential to be much more valuable to our students, and may even lighten our workload in the long run.

Digital Pedagogy and the Transformation of Undergraduate Teaching

The goal of integrating digital tools into teaching is not simply to add impressive technology to the classroom in order to show that we are changing with the times. The goal is to first consider how our students learn, what skills they need to succeed, and the challenges we face in the classroom, and then to select the appropriate tools from the plethora available to encourage active, engaged learning. In other words, it is better to take a learner-centered approach to selecting digital tools (Mayer 2005:7-10). A few of the challenges that seem to affect all courses include: the need to keep students engaged; to encourage active learning, participation, and collaboration; to ensure that courses and course materials are accessible and inclusive; and to promote the critical thinking skills that students need in both their academic and personal lives. Starting from these considerations, I discuss the value of integrating multiple media into teaching strategies, before demonstrating how these elements can be organized online through Learning Management Systems.

The Integration of Multiple Media

As a number of researchers have been arguing for the last few decades, including multiple media, such as images, videos, and models, as opposed to just text, is not only more stimulating and engaging for students than traditional, text-based lectures, but also improves knowledge retention and comprehension (see for discussion Haarstad 2017: 84-86, also see Price, this volume). In a study by Richard Mayer (2001), for instance, students who were taught a lesson that combined words and animations consistently demonstrated both increased retention of information, and a more thorough understanding of the concepts than those who were given only written instructions (see also Papageorgiou and Lameras 2017). One basic means of incorporating media, is by introducing classes with a relevant video clip from a popular television series, movies, or the news. This can help to start a discussion, and set the right tone and atmosphere

for the rest of the lesson.[27] Asking students to consider the validity of the representation, and to understand how it affects the public understanding of the discipline, can further help the students to actively and critically engage with this media. This is particularly important in the field of archaeology and ancient history, where there are many inaccurate, sometimes racist theories shown on television and in documentaries (Anderson et al. 2013; Card and Anderson 2016). These representations, their context, and their audience, can and should be engaged in the classroom in an effort to help correct any inaccurate assumptions; moreover, selecting modern, popular examples of media also helps students to see the relevancy of the lesson, and connect it to their personal lives. This has been shown to enhance a student's perceived value of the information they are learning, and as a result, they are more likely to engage with the subject matter (Ambrose et al. 2010:75; Nilson 2016:133). As noted, such critical engagement with media has been a popular means of integrating multiple modes of communication in the classroom for some time. Advances in technology, and the increased digital literacy of today's students means that instructors can now take these experiences further.

Moving beyond film and television, interactive media such as video games, virtual or augmented reality, as well as audio resources such as podcasts, are also readily available to instructors and students (see below for discussion of archaeological examples). Drawing these more technical resources into lesson plans will allow students to critically consider different modes of representation. Moreover, incorporating different media as part of their required assignments in their own time will ensure that students can find, use, and assess these tools in the future, and not simply when their instructors are present. Additional tools will also help students interact and collaborate, while challenging them to express themselves and their ideas through different media as well (see also Wahleithner 2014). Combining these resources online, whether to create a hybrid online and in-person course, or for wholly online learning, will also encourage students to take a more active role in their education. This can

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[27] As with all resources, ensure you have the proper permissions to show and share selected media. You can speak to your institution's copyright librarian if you are uncertain.

include both synchronous and asynchronous assignments, discussions, and collaborations, allowing the course to be more flexible and accessible. As noted in the introduction, while online learning was already a substantial component of modern instruction, it has become a fundamental element of teaching, particularly due to the COVID-19 pandemic. One tool that can help to bring all these different components and media together online, and create a more engaging, inclusive, and accessible learning environment, is an online Learning Management System (LMS).

Online Learning Management Systems

Accessing resources online is no longer a considerable burden to the vast majority of undergraduate students. For instance, in a 2018 survey by the EDUCAUSE Center for Analysis and Research (ECAR), of the 54,285 undergraduate student respondents from 114 US institutions, only 65 individuals, much less than 1%, reported that they did not have access to a desktop computer, laptop, tablet or smartphone (Galanek et al. 2018: 7). This means that nearly every undergraduate has regular access to digital tools, which is increased even further with on-campus access to computers or laptop borrowing schemes. It is therefore not surprising that the vast majority of institutions are encouraging the use of online Learning Management Systems (Dahlstrom et al. 2014). A LMS is a powerful tool for teaching, whether to support face-to-face courses, or to manage online classes. Some of the most popular systems include Canvas, Blackboard, and Moodle. There are online tutorials to help instructors learn how to use these platforms (usually found on the initial construction page of the learning environment). Most institutions will also offer short courses and related technical support for instructors if needed. The LMS can be used as a collaborative, online community for your course, which can help with many of the challenges noted above; however, despite the ubiquity and promise of these tools, studies have shown that they are rarely used to their full potential (Klobas and McGill 2010; Dahlstrom et al. 2014; Kaufmann et al. 2017). In the following, I will briefly review how some basic adjustments to posted readings and assignments can improve course accessibility, before moving to more advanced applications designed to encourage collaborative and asynchronous learning with multiple media.

Many professors are familiar with some form of LMS, and are already using these platforms as a means to distribute course materials such as the syllabus, assignments, and selected readings (Klobas and McGill 2010: 115; Dahlstrom et al. 2014). Selecting readings that can be posted online as PDFs puts much less of a burden on students than requiring the purchase of print textbooks. As more courses move online, and access to campus bookstores becomes more limited, this may become more essential. Instructors should work with a copyright librarian to ensure files are selected and posted legally. Many LMS platforms enable professors to link to online course reserves that are accessed through their institution's library as well. This may require some additional advanced planning than assigning a single textbook, but there are a number of benefits to these efforts. For one, having readings easily accessible online, means that students can access course materials from any location – on long transit commutes, in work breaks, on campus or at home (Buckner and Norman 2017: 24). Updates or changes to readings or the course schedule can also be distributed immediately. Alternative media, and not just text readings, can also be assigned. A few additional efforts with selecting and posting these readings and media can increase the universal design of the course as well.

Universal design in education refers to "the creation of an educational environment designed to allow most students to fully participate without requiring individual accommodations" (Case 2017: 105). Digital distribution of materials as PDFs has the potential to make course readings immediately accessible to not only students with lower incomes, but also to those with vision impairments. Screen reading software, designed to read digital text, can easily make PDFs accessible for blind students, provided that the PDF is digitally readable. As Beth Case (2017: 108) has pointed out, scans of books that are basically images, pose challenges to these technologies. Many scanners these days, however, can create PDFs that are searchable through optical character recognition (OCR). Programs such as Adobe Acrobat Pro can be used for this purpose after the scans are created. Librarians or technical support at your institution can help with these tasks. Putting in this extra effort when first creating these readings

will benefit a greater proportion of students, and having searchable PDFs makes research easier for all users. A similar goal can be achieved with a few adjustments to other visual resources.

As noted above, integrating images, videos, models, podcasts, and other media to supplement text- based readings and lessons is a great way to improve student engagement and information retention. These can also be easily uploaded to a LMS, or instructors can post links to these resources that might otherwise be protected by copyright laws. If you are able to add captions, or select videos that already have that option (which is built into many YouTube videos, for instance), you further increase the accessibility of these resources. If this is not an option, you can add in a text summarizing the video, or a written description of an image. Again, this does not just benefit students with hearing impairments, but will also allow viewers to watch the videos in noisy environments, which are sometimes unavoidable for undergraduates living in busy, vibrant residences (Case 2017: 109). This is especially important if lectures are going to be delivered as videos for online courses. While this is a great option for allowing students to watch and re-watch lectures, and learn at their own pace, a written transcript will make these resources more useful.

Moving on from the considerations surrounding readings and visual resources, another benefit to the LMS is access to immediate feedback. Quiz applications are constantly being updated, and there are already many options for different styles of questions and responses. Again, these can be easily marked, and in the case of multiple-choice assignments, feedback is immediately accessible. Students can submit course work through the LMS, which is time stamped and reduces the chances of work being damaged or lost (Buckner and Norman 2017: 26). Instructors can quickly grade the materials online and add written feedback on assignments. Online quizzes or exams can help to encourage students to complete readings and check their comprehension of the materials. All these marks can then be stored and accessed by students so they can check their progress in the course at any time. This may allow them to better understand where they can improve.

So far, the LMS has made the course and materials much more accessible to a much greater proportion of students, and will allow for more organized and timely feedback; however, the real advantage that these tools provide, and where they are most underutilized, is their potential for allowing collaborative participation (Dahlstrom et al. 2014). This is especially important for online courses, where students often feel disconnected from both their instructor and peers (van Tryon and Bishop 2009; Haarstad 2017), but still need flexibility to work at their own pace. One of the most straightforward and popular means of connection is through the use of discussion boards. In response to readings or other media, professors can post follow-up questions for discussion. This will allow students to engage with both the material and each other in their own time. The use of these resources, particularly when professors are actively involved to help guide discussion, has been shown to improve student performance, and leads to a feeling of increased social presence – the feeling of building a community of trust and engagement with their peers (Klobas and McGill 2010; Haarstad 2017; Kaufmann et al. 2017: 159; Cleveland-Innes 2020: 90). This can also afford students who are too shy to speak in class the opportunity to interact with their classmates (Buckner and Norman 2017: 24). By allowing students longer response times, they can also contribute when it is convenient, making it easier for students who have additional time commitments, or who live in different time zones, to continue to participate. Professors have also found that students often contribute more thoughtful comments to these online discussions than in person, because they are given time to think through and organize their thoughts (Hiltz and Goldman 2004).

Newer options can also be used to help students collaborate and take a more active role in their learning. Through the LMS, professors can organize students into groups, where they can participate in semi-private discussions to talk about topics or group projects. Some platforms also allow group work to be completed through collaborative writing technologies such as Google Docs. Again, these permit students to work together, but at their own pace, and from different locations. As Google Docs is a free program, such collaborations are also possible if the plugin has not been activated for the specific LMS. While these programs can also

provide options for peer feedback through review tools, there are specific peer review plugins on LMS platforms, often simply as an option through the "assignments" settings. Many of these allow peer comments to be anonymous as well. Such peer review, when done according to a rubric, can also help students identify inaccuracies or organizational flaws in their own work (Yalch, Vitale and Ford 2019).

While recorded lectures and discussion boards are excellent for asynchronous teaching and participation, students can still benefit from speaking directly to their professors and each other. For online courses, this can again help with the feeling of social presence, and provide a connection to the instructor, which has been shown to improve the student experience (Haarstad 2017: 83). Some LMS platforms now allow for the integration of online conferencing tools, such as the plug-in *Collaborate Ultra*. Like the discussion boards, this can increase the feeling of social presence, and allows for more immediate conversations. If your students are in different time zones, you can also record the discussions to allow students to watch at their convenience. In such cases, you may also wish to consider varying the times of discussion, so that more students have the chance to participate. If your LMS does not have a conferencing plugin, you can always organize discussions through platforms such as Zoom as well, after reviewing privacy rules. Following larger discussions with the whole class, these platforms provide the option of creating "breakout groups" for more focused conversations. This is particularly useful if the course is very large. I have also used these platforms to hold virtual office hours for online courses, both at set times and by appointment, to help talk students through difficult challenges that could not easily be answered in emails or through text-based conversations.

In this brief discussion, I have only touched on a few of the basic tools that can be used in any discipline to address some of the challenges that we face as instructors (for additional resources see Beetham and Sharpe 2020; Strawser 2017). It may be time consuming to create these online environments initially, but they can be transferred over to the next course, and may save a great deal of time in the long run. It is also important to remember that while a LMS provides a convenient central hub around

which to organize these different tools and experiences, other online discussion groups (Slack), social media platforms (Facebook, Twitter), quizzing software (Kahoot!), and collaboration tools (Google Docs, Zoom) can be substituted if you do not have access to more formal platforms. In addition, other available online media, such as blogs and podcasts, can be used to increase the modes of submitting assignments (see below). Moving to the study of the ancient world, I provide some examples of how these different elements can be combined into both brief and more in-depth projects.

Digital Pedagogy and Teaching the Ancient World

In addition to digital tools that improve undergraduate pedagogy generally, there are a number of resources and activities more specific to archaeology and ancient history that can both improve a student's experience in the classroom, and help to prepare them to enter the workforce. As noted, digital tools have become a fundamental element of the field, so working these elements into courses is important for our students' future success (see also Watrall 2019: 141). I have selected two types of resources in particular, which I believe can be easily integrated into courses without placing a significant burden on the instructor: digital databases and online collections, and the exploration of virtual locales. These resources have the additional benefit of requiring interactions with multiple media, and will allow for critical engagement and improvement in both digital and media literacy.

Digital Databases and Collections

There are very few professions associated with the study of the ancient world that will not require a thorough understanding of how to engage with digital databases and collections. Whether your students are interested in archaeology, history, museology, or linguistics, they will need to be able to sift through collections if they are going to be able to complete advanced projects. As researchers, we often forget that many of our students have not been introduced to the databases we use on a regular basis. Instructors can create a selection of links to these resources

and post them on a LMS. Short assignments can then be used to increase the students' familiarity with these sources. For instance, I have created scavenger hunts for different collections, asking students to find objects based on specific types, regions, or accession numbers. This helps them understand the many ways such sources can be explored. They can then use these skills for more in-depth term projects. A major benefit to these types of assignments is that these resources are readily available. The British Museum and the Metropolitan Museum in New York, for instance, have excellent, accessible online databases, while other resources such as Open Context can provide different types of datasets.[28]

As with other media, instructors should also encourage students to think critically about databases and online collections. Students should consider the type of information that is included and what is missing, to help them actively consider how these databases are designed, and for whom they are intended. Instructors can encourage students to use this information to answer research questions, promoting the inclusion of primary data, a vital skill for their future work. I have found that students find this uncomfortable initially, but are soon excited to realize that they are able to answer their own questions using actual artifacts, all accessed online. A similar experience is discussed in an article by Agbe-Davies et al. (2014). In this, the authors describe their surprise at the students' initial lack of experience and ability to query databases. In response, they designed a number of activities and projects that they assigned to students at different levels, using the *Digital Archaeological Archive of Comparative Slavery* (DAACS) (844). Although the instructors needed to provide the students with extra time to become familiar with the concept, being able to work with collections of data is a necessary skill, and their students, too, seem to have found their hard work rewarding (845-7).[29] Once students are

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[28] The British Museum online collection: https://www.britishmuseum.org/collection ; The Metropolitan Museum online collection: https://www.metmuseum.org/art/collection ; Open Context: https://opencontext.org/

[29] For additional digital activities that involve databases, see the pedagogy page for the Database of Religious History at: https://religiondatabase.org/landing/about/pedagogy

comfortable with accessing and querying online databases, they can also present their work using different media.

Presentation options that promote the use of additional technologies might include the creation of a website or blog post using free platforms such as WordPress at wordpress.com. Many institutions now also have a version of WordPress that is hosted on a private server, and will better protect the privacy of your students (ask your IT department, if you are uncertain). Tutorials are freely available on these sites. Using these platforms, students can create virtual exhibits based on the collections and databases they have explored (for detailed instructions, see my teaching activity in this publication, Curating a Digital Egyptian Necropolis). To practice with more detailed database creation as part of online exhibits, instructors may also wish to consider using Omeka at omeka.org. This is a web-publishing platform specifically designed for sharing digital collections and exhibitions, created by the Corporation for Digital Scholarship, the Roy Rosenzweig Center for History and New Media, and George Mason University. Tutorials can once again be found on their website.

Omeka provides students the opportunity to include database design and entry as part of their digital exhibition, providing a more advanced level of professional experience. In one of my courses, students combined data from an online collection with their own examination of museum objects. They used this data to create entries for each object, and then created a virtual exhibit based on these artifacts. Once again, the students' unfamiliarity with the technology initially caused discomfort. I found that having them create a single entry for an object as part of a short group activity, before moving on to individual projects, helped them to work with one another to get familiar with the platform. All students, from different backgrounds, with different levels of experience, and at different ages, were able to complete the project, and seemed to find the experience rewarding (see also Cuenca and Kowaleski 2018). In particular, I found that this focus on entering data about objects helped them think more about the artifacts, and how to use primary data to back up their arguments. While my course included in-person and online work, as the platform itself

is online, these activities would be suitable for fully online courses. It is also another platform that allows collaboration from different locations.

Finally, while students are working on these projects, instructors may wish to discuss image copyrights and permissions. While most of the British Museum and Metropolitan Museum images, for example, are free to use for non-profit projects, students can learn about proper attributions and best practices. This is vital information for their future work and publications. Together these different projects will also help them to consider how to collect and publish their data for a professional or public online community after graduation.

Virtual Explorations

The use of virtual reconstructions for sites and museums can add both a new dimension of multimedia engagement, and encourage students to consider the best means of communicating with a professional and popular audience. Once again, this will allow instructors to take advantage of resources that are freely available online. Many excavations, historical sites, and museums have created virtual environments that can be explored on their websites.[30] Instructors could encourage critical engagement with these sources by asking students to compare these reconstructions to two-dimensional line drawings, perhaps in group discussions, in online discussion boards, or for individual term projects. Students can also be encouraged to consider which audiences would benefit the most from such resources, and what they would change about the models or virtual exhibits to make them more valuable for communicating with different communities.

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[30] To give just a few examples, Egyptian tombs can be explored at: https://describingegypt.com/; the Giza Pyramids have been recreated by Harvard University here: http://giza.fas.harvard.edu/; a video showing the 3D reconstruction of çatalhöyük can be watched here: http://www.catalhoyuk.com/content/3d-catalhoyuk-project-animation; and discussions of Rekrei's projects to virtually reconstruct destroyed cultural heritage, starting with the Mosul museum in Iraq, can be found here: https://projectmosul.org/

Some excellent reconstructions are also available in video games. Scholarly reconstructions can be explored in modifications to online platforms such as Second Life (Morgan 2009) or Minecraft (McGraw et al. 2017: 167; Mol et al. 2017: 10-11; Politopoulos et al. 2019). The popular franchise Assassin's Creed by Ubisoft has also created "Discovery Tours", walkthroughs and curated tours of the ancient worlds of Egypt in *Assassin's Creed: Origins* (AC: Origins), and Greece in *Assassin's Creed: Odyssey* (AC: Odyssey). The Discovery Tours can be purchased separately from the full games for a reduced price, and can then be used in the classroom on a PC. Players have also posted clips on YouTube, which could be linked to online. I have led students through the walkthroughs in AC: Origins in courses on ancient Egyptian archaeology, and held optional lab nights to provide students additional time to explore the reconstructions. While the digital monuments are detailed, there are still inaccuracies and design choices that should be discussed as a class (see also Mol et al. 2016; Politopoulos et al. 2019). I have found that students are very receptive to such activities. I also led students through a comparison of the reconstruction of the Giza pyramids completed by AC: Origins with those by Harvard University's, *Digital Giza* (see note 4). This led to an active discussion about the value of different choices to engage different audiences.

Once again, the integration of such resources into projects and discussions would mean the inclusion of multiple media, connecting resources to interests from the students' personal lives, and encouraging a critical consideration of these reconstructions. While students could respond to such sources in traditional, text-based papers, they could also complete blog posts, or perhaps podcasts based on their experiences (for additional work with podcasts, see Price's chapter in this volume, or the activity by Ben-Marzouk and Candelora). For those students who own *AC: Origins or Odyssey*, or who have the ability to access the game on campus, there are also in game opportunities to record and create new video walkthroughs and challenges, which could be supplemented by voice overs or text commentaries, explaining the historical, or inaccurate, features seen in the videos. These can be shared and discussed with the class in the game or online. As students advance in this field, such work can also help prepare

them to decide how to best communicate their own interpretations of sites and objects to different audiences.

Conclusions

In this discussion, I have touched on just a few digital tools that can enhance the learning experience within the classroom. Integrating multiple media is an approach that has been recommended by educators for decades, while fully integrating an online Learning Management System can transform the classroom into an accessible, collaborative community. While these tools can be useful across the disciplines, teaching with online collections and databases, and the inclusion of virtual reconstructions or models, can elevate archaeology and ancient history courses, specifically. As noted above, these are just a selection of tools and resources that I believe can be easily integrated into courses – either in a blended, online and in-person setting, or those that are entirely online. Instructors might consider these a starting point, but with additional exploration on the internet, or through the resources cited above, educators can easily build a repertoire of diverse resources. The majority of the students that we have in our classes now belong to a generation that grew up surrounded by the internet and digital devices, and are entering a workforce that demands digital literacy. Ensuring that we are comfortable with technology in the pedagogical aspects of our profession will make our courses more enjoyable and prepare our students for the future. By adding these types of resources into our courses, we will not only make up for any lack of in-person teaching, but can also take advantage of the tools available to surpass the traditional classroom experience.

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Collaborative Archaeology in the U.S.: Research Experiences from the American Southwest as Pedagogy

Nicholas C. Laluk and Mark R. Agostini

Collaborative archaeology is an emerging field within the discipline of anthropology, and is characterized by consultation, communication, and collaboration as its set of core principles. However, because this form of archaeological project is variable in theory and in practice, we review a range of collaborative initiatives from the American Southwest to illustrate key differences and to argue how understanding the diversity of these archaeological approaches can broadly translate into more ethical and inclusive ways of teaching. As a tool to aid in the decolonization of education, this essay identifies key elements of collaborative archaeological research design and practice that fosters more equitable relationships between archaeologists and descendant community members. Moreover, we explore collaborative archaeological case studies from Ndee (Apache) and Tewa (Ancestral Pueblo) contexts to explore how these projects work to overcome theoretical and methodological challenges by applying Indigenous knowledge to traditional archaeological approaches. Lastly, we conclude with an overview of future directions for advancing and instructing students on Indigenous archaeology in North America and in other contexts, while also providing thoughts on how practitioners and instructors of archaeology can continue to improve upon disciplinary and pedagogical ethics.

Collaborative archaeology is an emerging field within the discipline, and is characterized by consultation, communication, and collaboration as its set of core principles (Liebmann 2017: 643). While this form of archaeological project employs a diverse set of terms such as community and community-based archaeology (Atalay 2012; Marshall 2002; Simpson 2010), public archaeology (Merriman 2004), Indigenous archaeology (Nicholas and Andrews 1997; Nichols et al. 2010; Smith and Wobst 2005; Watkins 2000, 2005), and collaborative archaeology (Colwell-Chanthaphonh and Ferguson 2008; Kuwanwisiwma 2008; Silliman 2008), we understand that these approaches share a common framework critical for advancing contemporary archaeological practice, including pedagogy. This uniting

framework can be used to provide various learned experiences from collaborative archaeological projects in the Southwest U.S. that might help researchers better prepare for their own collaborative research projects with Native American Indigenous groups in the U.S. and elsewhere in the world. Therefore, the goal of this essay is to (1) briefly highlight collaborative archaeological research in the U.S. Southwest; and (2) provide a list of issues/themes that have presented themselves as a result of collaborative experiences to better teach, plan, organize and put into practice archaeological projects with Native American and other Indigenous communities.

Our Own Experience: Collaborative Process in the U.S. Southwest

Recently, in the American Southwest collaborative archaeological research projects (Aguilar 2019; Colwell-Chanthaphonh and Ferguson 2008; Ferguson and Colwell-Chanthaphonh 2006, Ferguson, Koyiyumptewa and Hopkins 2015; Aguilar and Preucel 2013; Laluk 2017; Liebmann 2012) have worked to meaningfully integrate and involve Native American community members in all areas of research projects from the planning phase to the final stages. In reference to teaching, in-field collaborative learning experiences including field school focused on community-based and collaborative archaeology have been critical (Silliman et al. 2008). Moreover, students are being exposed to the dynamics of the collaborative process as summer interns and project research assistants as well, which in turn sometimes leads to long-term collaborative projects for students involved. This is a significant step in working toward responsible and respectful research activities through archaeological pedagogical practice and a change from past interactions between archaeologists and Native American groups that seemed to be fueled by required consultation through heritage resource law regulations (i.e., NAGPRA) rather than truly voluntary collaborative projects. As Colwell-Chanthaphonh and Ferguson (2008:1) suggest "archaeologists have become more engaged in emerging forms of collaboration, projects with descendent communities that radically challenge the disciplines theoretical, methodological, and ethical foundations." Our research projects attempt to fully embrace such

inclusive, reciprocal, and respectful collaborative work that directly benefits and contributes to the goals, needs and wants of Indigenous communities.

Throughout our professional research experience various issues/themes have presented themselves. Some are more common to the collaborative process ranging from logistical and monetary issues to those that became manifested as the project progressed. Laluk has experienced various issues as a result of his Native American identity—being a tribal member of one of the groups involved in his research, his status as a student, appointment as an archaeologist/tribal relations federal employee, and sporadic consultant for the White Mountain Apache Tribe. As a PhD candidate, Agostini has experienced challenges as a result of his traditional archaeological training, which in both theory and method does not always adhere to the values and perspectives of Native American communities. For example, his collaborative work with the Pueblo of Pojoaque (Agostini 2017, 2018) applied a chemical analytical method to distinguish between local and non-local ceramics at archaeological Tewa villages in the Northern Rio Grande region of what is now New Mexico. While the project questions were directly in line with the Pueblo of Pojoaque's community values and research interests, the analytical technique applied was minimally destructive and therefore permanently altered their material culture heritage. Tribal permission to conduct the research passed before their Tribal Council, however several community members expressed that any destructive testing of their cultural patrimony outweighed the value in answering the questions posed in the project.

A lesson learned from this collaborative process is that the methods and objectives of the archaeologist will not always perfectly align with those of Indigenous research partners. However, paramount for moving forward in any collaborative process is to allow for multivocality from the learning process to collaborative project implementation. Disparities between Indigenous and non-Indigenous approaches, interpretations of archaeological practice, and its ethics may therefore be improved by integrating multiple perspectives on establishing the meaning of artifacts, creating educational content of museum exhibits, and explaining the relevance of archaeology to Indigenous and other stakeholders (Merryman

2006, Nicholas 2010). The next section of this essay outlines various issues/themes to provide some direction as a result based on our own experiences with the collaborative research process with Native American Nations that will assist others conducting similar research projects. Our goal in this section is not to provide overarching solutions or outline a model for "best practices in collaboration," but to list some of the issues/themes we have encountered during our own collaborative research experiences, and discuss them in greater detail to assist archaeologists with their own collaborative and pedagogical undertakings.

Communication, Respect, and Responsibility

Effective communication in any type of collaborative project is critical. However, at times archaeologists can become stagnant or even fail to consider the research potential in meeting with Native American community members to determine what goals and questions they wish to answer regarding their archaeological heritage. In March of 2020, Agostini presented his doctoral dissertation research proposal to the Tribal Historic Preservation Officer (THPO) Advisory Board at the Pueblo of San Ildefonso, New Mexico (Figure 1). The research proposal outlined a project for investigating the archaeological relationship of San Ildefonso's oldest village in the Rio Grande Valley called Perage (Harrington 1916:263) with an earlier settlement on the nearby Pajarito Plateau called Otowi. Importantly, the basis for this study is rooted in oral histories that suggest Perage was "inhabited by their ancestors before the coming of the Spaniards'" (Bandelier 1892:78) and that when drought and famine impacted ancient life on the Pajarito Plateau, "a detachment from Otowi founded the pueblo of Perage" (Hewett 1906:20).

Members of the THPO advisory board communicated that a strength of the proposal was the emphasis on oral history as a springboard into a collaborative archaeology project and partnership. Several THPO advisory board members noted that they knew of the ancestral village of Perage and had visited it in the past, but were not familiar with the oral histories recorded by early anthropologists and archaeologists. As such, a perceived benefit for carrying out the project was to further educate San Ildefonso

Figure 1. Mark Agostini presenting his doctoral dissertation proposal before the Tribal Historic Preservation Officer (THPO) Advisory Board at the Pueblo of San Ildefonso. Photograph by Joseph Aguilar (March 11, 2020).

youth and other community members about the history of Perage and its likely ties to Otowi. Other tribal members raised concerns about conserving Perage for the future, expressing the desire to seek out any material culture that may have been removed from the site during the early twentieth century that could then be returned to the community. Lastly, while Agostini's project proposal focused on the main architectural area of the archaeological villages, tribal members raised critical questions about the possibility of there being extra-site features (i.e., rock art, shrines) at the periphery of the villages. Adding this goal to the research design critically situated the archaeological sites within the broader Ancestral Pueblo landscape. Moreover, this perspective shifts attention away from a traditional archaeological definition of a site as being both spatially and temporally delimited to a more dynamic and historically interconnected understanding of the term.

Here, such examples of communication, respect and responsibility can be translated into teaching through various mechanisms. For example, inviting

guest speakers to give in-class lectures allows such collaborative practices to become more real in a sense. Indigenous guest speakers can engage the class from their own perceptions which often lead to crucial learning opportunities for students beyond text book understandings of effective collaborative work. Distributing guiding questions beforehand on what students believe are effective communication and respectful research skills can also help students form better understandings of the collaborative processes an promote classroom dialogue. Another useful teaching example is for educators to utilize tribal protocols in-class. Various tribes in the U.S. Southwest have developed tribal protocols for cultural resource management and associated research activities. Distributing and discussing examples of certain tribal protocols not only will allow students to better understand the various ways tribal entities manage and care for resources but shows the diversity of tribal management activities as well. Finally, in learning about communication, and respect a useful assignment might be having students create a project proposal for collaborative research with an Indigenous community of their choice and then having them take the human subjects university training and write reflective pieces on the experience to see what they learned or how their thought processes on communication, respect, and responsibility might have changed.

Critically-Reflect

In our minds critical-reflection is one of the most powerful ways archaeologists can allow themselves to attempt to better understand. Critical reflection allows archaeologists to rethink their own research goals and interests to better address contemporary issues of the utmost importance to Native American communities. For example, in his own dissertation research Laluk's project goals initially focused on forming a better understanding of Apache material traces in the Chiricahua Mountains using a pluralistic approach. Although various sites were visited and interpretations were made, what became clear is a lack of understanding and failure of the academy to really look beyond what is needed objectively and empirically to what is needed humanistically in the present day. Beyond forming diagnostic checklists for Apache materials or

even speculating temporal components of Apache presence in the Southwest there were other issues such as cultural affiliation, place-making, ancestral and family ties, ceremonies and stories, plants and animals, contemporary health issues, technological advances, ongoing colonial activities, and substance abuse issues that directly came up during Laluk's own collaborative research. Such internally driven and experienced issues from contemporary tribal communities demonstrates the need for archaeologists to critically examine and reflect on their own work and training because issues of extreme importance are constantly highlighted by tribal individuals that go beyond archaeological project agendas. In the context of teaching, guiding students to critically reflect is often a part of the overall responsible learning process as educators. In reference to teaching collaborative archaeology we offer a couple recommendations. First, group exercises in the form of ethical scenarios are extremely useful. Breaking students up into groups and having them argue or take a stance on a certain issue allows students to critically-reflect from various standpoints.

Evolving Administration and Politics

Researchers who have spent extended amounts of time with tribal communities on reservation lands usually have formed some understanding of the inner workings of tribal politics and the immense effects politics can have on research projects. Because federally recognized tribes are sovereign nations, tribal administration evolves on a regular basis similar to branches of the U.S. government. As Davina Two Bears (2006: 385) points out for the Navajo Nation, "since the Navajo Nation Council members are elected every four years, re-education of the newly elected Navajo leaders, including the Navajo Nation president, must be done on a continual basis if Navajo Nation Archaeology Department desires continued community and tribal government support." Similarly, concerning their work with museums and tribal communities Luby and Nelson (2008) suggest, "tribes and museums are constantly changing in terms of leadership, membership, funding and institutional and programmatic priorities." Due to this constant evolution of tribal government both tribal and non-tribal researchers face the reality of

getting their projects approved, not approved, or even worse, possibly terminated. Therefore, long-term collaborative archaeological research can be better planned if archaeologists consider the everyday political and social realities of Native American communities including administration changes. Here, we think working through ethical case studies is important to instill this issue. For example, providing a scenario where your project has been approved but is up for renewal. However, the new tribal administration might not believe your project should be re-approved. How do you as a researcher approach such a scenario? Such an exercise deals with adaptability, communication, tribal politics, respect, benefits all of which can assist researchers to creatively think about the collaborative process.

Assumptions, Expectations and Stereotypes

Assumptions, expectations and stereotypes often are interrelated and can make collaborative research projects difficult if researchers fail to change their mindsets or get beyond text-book informed notions of what Native American cultures need to be. Such texts abstract how Native American communities define themselves and the types of research that would be useful to them. Saitta suggests that what we should be focused on as archeologists working with underrepresented communities "are questions about everyday life— its conditions, variations, rhythms, and disjunctions— with answers developed in such a way that they are accessible to those living peoples having a stake in the interpretations" (Saitta 2003:13). However, these "answers," if at all achievable, and the questions precluding them need to be tribally derived/constructed and addressed/answered in ways that are useful from the respective tribal entities they are derived from. Otherwise, the research process associated with Native American communities becomes a continuum of re-hashed anthropological jargon that never fully embraces, appreciates and critically addresses the contemporary needs and issues of Native American communities through such actions as building tribal capacity and contributing to each tribe's unique overall self-representation and determination. Learning from living tribal communities takes time, but is necessary for archaeologists doing collaborative work to better understand and ask questions that inform the

past in ways that contribute to tribal culture, identity and heritage beyond assumptions, expectations and potential stereotypes that may have been learned and perpetuated in academic settings and popular discourse. For example, Agostini's collaborative partnership with the Pueblo of San Ildefonso often involves traveling to areas on tribal lands that are principally of interest to the THPO advisory board and other community members. During a research visit, archeologist Dr. Joseph Aguilar of San Ildefonso Pueblo investigated areas that may have been used in the past for agriculture with Agostini (Figure 2).

Figure 2. Joseph Aguilar investigates areas of potential agricultural use in the past on Pueblo of San Ildefonso lands. Photograph by Mark Agostini (March 12, 2020).

We should present students up front readings on the histories of colonialism and imperialism in United States and Canada. Discussing the legacies of colonialism during the first week or two of class sets the tone for the rest of the semester. Moreover, teaching through Native American run social media is a powerful tool for students to move beyond general perceptions and stereotypes they might have about Indigenous communities. Some of these online platforms provide useful tools—discussion, videos, personal experiences that discuss issues such as appropriation or stereotypes. Another useful way to assist students in

forming better understandings of the Native American past is to assign students a region of North America and discuss how archaeology has been done in that area. From what they can find: Do archaeological collaborations exist? What kinds of archaeological research have been conducted in the area in the past? Based on affiliated tribal entities, what are some potential ways archaeology can benefit these communities? Such an assignment not only helps students gain better understandings of Native American communities but the types of collaborative work that need to happen.

Build Relationships

Relationality is a necessary component of collaborative archaeological work. However, building long-term trustful relationships takes much time, often years of ongoing commitment. Inadequate time spent with communities can lead to distrust and misunderstandings that might fracture the future of the collaboration. Researchers need to spend extended periods of time within Native American communities to really attempt to form better understandings of the various issues communities face in the past as well as the present. Otherwise, issues of crucial concern and importance will continue to be ignored or ineffectively addressed in final research products or policy that can substantially make a difference for tribal entities and the collaborative framework overall. In Laluk's own research such commitments have taken form beyond archaeological-project related activities from actual furniture delivery to dealing with contentious issues like decimation of sacred sites and seeing tribal members brought to tears due to potential loss of powerful and significant areas. Oftentimes the contemporary issues underpinned by past experiences and circumstances continue to manifest themselves within collaborative and consultation contexts. As a result, collaborative archaeology requires an overwhelming commitment by researchers to work with tribal communities to potentially help redress such issues. A good way to teach relationship building in collaborative archaeology is to instill to students early on the importance of building and maintaining relationships with Indigenous communities. Often times Indigenous ontologies stress maintaining reciprocal relationships with tangible and intangible

components of culture and heritage as well as the intricate associations such components that are often inseparable. Again, a good way for students to be exposed to such ontologies is for educators to provide field trips to certain areas with tribal cultural or natural resource experts. Here, tribal experts can perform in-field discussions on not only the importance of protecting and preserving cultural resources but how the land and ecosystems are equally important and should be cared for collectively.

Past Equals the Present

The acknowledgment that the past equals the present is extremely important for anyone conducting archaeological collaborative research. In many Native American and Indigenous contexts ancestral sites and materials are directly related to contemporary and future well-being. Moreover, when archaeologists objectify ancestors and their personal possessions as material this does not fully address the personal, ongoing and reciprocal relationships many Native American communities have with their ancestors. In Laluk's own community the extraction of ancestors and their possessions from their resting places has very real sociocultural consequences for his community. Archaeologists need to understand that in many cases what they designate as objects or materials are living, breathing entities and they need to be treated with the utmost respect. Place-based site visitations are very useful to stress how the past equals the present to students. Daily journals are also useful throughout the semester. Overtime students can evaluate their own thoughts about how their own past bears onto their own understandings. Site and museum visits can further be elaborated in journal entries to show how certain areas and materials are still very much a part of contemporary tribal communities.

Maximize Benefits for Tribes

Atalay (et al. 2014:15) points out that some scholars (Welch 2000; Welch and Riley 2001) have recognized that "archaeology could do more to become socially relevant and responsive to extra-archaeological communities' needs and concerns regarding the discipline." However,

archaeology should consider this question beyond the discipline as well to creatively and innovatively push projects beyond archaeological benefits alone. In their collaborative archaeological field-school with the White Mountain Apache Tribe the directors followed the "Kane Rule," which works to provide benefits for the White Mountain Apache Tribe following the tribal standard "51 percent rule" (Mills et al. 2008:44). This rule states that all proposals and projects on tribal lands the majority of the benefits—economic, managerial and educational—must accrue to the tribe and its members. Although benefits such as training, pedestrian survey, damage assessment, curation, and data protection may have been addressed to an extent, the authors state, "the list of what the tribe wanted to see resulting from the field school still reads like a list of things the Heritage Program needs on an annual basis" (Mills et al. 2008). This example demonstrates the need for archaeology and its need to focus on the past collaborative projects to become "an archaeology that embraces its political nature and harnesses its ability to be a thoroughly engaged, authentically collaborative endeavor with the ultimate goal of serving non-archaeological, community-based needs" (Clauss 2014:31). By focusing on non-archaeological community-based research, archaeologists can strive to maximize project benefits for Native American communities that truly embrace the goals, needs and wants of communities involved. Teaching can benefit tribal communities in a number of ways. A good way to start is for institutions to really focus on hiring more Indigenous scholars in anthropology or archaeology programs. Such emphasis on hiring benefits tribal communities through having more tribal voices telling their own stories as well as comfort levels for many Indigenous and other students of color. In Laluk's own teaching experience, he has had powerful moments when Indigenous students thanked him and told him how appreciative they were that he was teaching a class where they felt comfortable discussing various issues because he had lived such experiences himself. This also has a mutual benefit in that students can learn from individuals who have direct experiences with their own communities and can share their experiences as teaching mechanisms to instill in students various issues that might not always be covered by non-Indigenous scholars. Finally, class exercises are often useful that explore the types of benefits Native American communities receive from collaborative projects. Listing

various project benefits such as tourism, short-term employment, or providing a "Native" voice and expanding this list as the class goes on helps students think creatively beyond solely "project-related" benefits but other social and political community needs as well.

Own Identity/Multiple Responsibilities

Thinking about your own identity and responsibilities to yourself as well as your collaborators is something we think all archaeologists should contemplate before conducting collaborative research. In Laluk's case, as a member of a Native American community, his identity has often guided his own thought processes and worldviews regarding research and protocol. For Agostini, being an outsider to the communities he works with requires reflexive thinking about how his own interests and skill sets align or are incongruous with the values and goals of Pueblo people. Kovach (2009:164) suggests a fundamental challenge for Indigenous researchers is "the inevitability of being accountable to culturally and epistemologically divergent communities." In Laluk's experience this type of "dual/multiple accountability" has been a difficult situation to navigate. For example, while in graduate school, as a member of the White Mountain Apache Tribe and being employed at the U.S. Forest Service, Laluk always continued to affirm his overall goals of attempting to expand upon what is known about the Apache past through Apache knowledge systems. His inherent Apache identity is a continued blessing that he is constantly and forever thankful for. Being not only a member of the White Mountain Apache Tribe, but a member of one of the 566 federally recognized American Indian communities in the United States, there was an opportunity at a young age to cultivate an understanding of the unique history of Native American people and the continued effects of colonial and U.S. governmental policies of genocide and extermination.

However, one persisting problem many Native American professionals including Laluk himself have and continue to deal with in academia and other professional milieus' is the stereotype that as an American Indian person "we are able to speak on behalf of all tribal people" (Lippert 2010:185). Laluk talks about constantly dealing with such situations

throughout the duration of his graduate career and through his work at the U.S. Forest Service. There are many levels to this stereotypical concept as well. Not only could Laluk talk on (1) behalf of all American Indian people, but he could talk on (2) behalf of all Apache people, and (3) his own White Mountain Apache people as well. In a way, he had a three-pronged American Indian identity, which he found very difficult to negotiate in various contexts throughout his work with the Federal government, White Mountain Apache Tribe, and as a graduate student. However, due to this identity and graduate school experience Laluk suggests an effective way for academic archaeology programs to prepare non-Indigenous students who might be interested in doing collaborative work with Native American entities. His suggestion is to provide a required core class for archaeologists and students working in North America on Native American Studies and Federal Indian Law. Teachers should utilize various texts that discuss collaborative research in the U.S. including but not limited to Atalay 2012, Watkins 2000, Colwell-Chanthaphonh and Ferguson 2008. Introduction to American Indian Studies courses are useful because they often discuss the legacies of colonialism in the U.S. and various issues Native American people are still dealing with as a result. In Laluk's own experience reaching out to communities you want to work with can be effective as well. Communicating with tribal cultural programs of historic preservation offices and introducing yourself and your interest in collaborative research with the tribe can help build positive relationships.

Such a class would be beneficial and begin the critical work of alleviating some naivety and possibly enlighten students from each department to contemporary issues and continued disconnect between much of archaeology and the lived realities of Native American communities. It would be beneficial to have a co-taught class with three professors. One from the School of Anthropology, one from Native American Studies, and a Federal Indian law professor. A class of this nature would be especially beneficial to first year archaeology anthropology graduate students working with contemporary Native American communities.
Furthermore, we fear a perpetual problem within academia today is that graduate students who are working with American Indian communities either directly or indirectly are not trained properly, or cannot see how

Native American communities are still being affected today by the legacies of U. S. colonial efforts. As Duran and Duran (1995:1) point out "without a proper understanding of history, those who practice in the traditions of social sciences operate in a vacuum, thereby merely perpetuating this ongoing neocolonialism." Is it necessary for students of archaeology to learn the "so-called" core of anthropological thought from past scholars such as Franz Boas, Michel Foucault, or Karl Marx without having to learn the basic underpinnings of the legal history and the formation of contemporary cultural heritage resource law under the racial supreme court decisions referred to as the "Marshall Model," American Indian activist movements as well as works by such scholars as Arthur C. Parker and Vine Deloria, Jr.

Due to this bias, not only do the graduate students planning to work with Native American communities doing so-called "collaborative" work suffer, but more importantly, the tribal communities involved continue to suffer as a result of this lack of understanding and education. Because of this ongoing problem we think students need to receive "required" core coursework so they can begin to understand the unique legal relationship between the federal government and Indian Tribes, set forth in the U.S. Constitution, treaties, statutes, executive orders, and court decisions.

We realize that it might not be the "job of archaeologists" to solve the vast community issue within tribal communities, but the continued reference to these issues and problems stated time after time by tribal cultural experts during consultation and collaborative issues demonstrates that, in Apache and Pueblo world views, archaeology (the past) is strongly related to the present. Archaeologists need to become "enthusiastic learners and dedicated listeners" (Willow 2010:83), not only toward material remains and formed empirical and theoretical frameworks, but to the real-world everyday concerns and issues during consultations and collaborations with Native American communities that are more often than not, a direct result of U.S. colonial and imperial efforts. Pyburn (2014:212) makes a good point in that in doing collaborative work it is "crucial to be clear about who you are, why you are there, what you can offer and what is beyond your scope." She goes on to suggest that in the context of teaching she asks

students "to think honestly about what they might have to offer a community suffering from some sort of social injustice" (212). This is an important issue that educators should raise in classroom settings because it forces students to critically consider issues at their own personal experiential level that work to decolonize the archaeological discipline.

Many of these common themes/challenges/problems we have delineated in this essay overlap. We have outlined and discussed in greater deal some of these challenges we have encountered and how we as archaeologists can somewhat ameliorate and be prepared for them. However, each research project will be unique and will present its own set of challenges that the researcher has to be highly adaptable to in any context. Although the distinctiveness of each project will contribute to what Ferguson and Colwell-Chanthaphonh (2008) have termed the "collaborative continuum" — the broad spectrum of collaborative archaeological research, due to this "distinctiveness," there will always be something to contribute to the interminable nature of the continuum.

Conclusion

This essay has outlined various issues and themes that we think are critical and useful for any archaeologist attempting to do collaborative research with Native American and Indigenous communities. Although the list is by no means exhaustive, it comes from years of experience working with tribal entities in the Southwest U.S. from various academic, professional and Federal contexts. Other equally important issues/traits that can help positively contribute to collaborative archaeological projects including being accountable, adaptive, reflexive, responsive, and non-paternalistic should also be considered when doing collaborative research. These processes can help educators to teach students to creatively and critically evaluate their own work by questioning agendas, goals, plans and processes. In-class dialogues through ethical case studies, field trips, and guest lecturers are very useful ways for students to better understand collaborative archaeological processes. By teaching underscored by such themes as well as others we feel that individuals willing to learn and

educate themselves about collaborative archaeological approaches can be better prepared to plan and eventually put-into-practice archaeological collaborative projects with Native American and Indigenous communities.

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SECTION 2: TEACHING ACTIVITIES

Identifying Centers of Domestication

By Christopher W. Jones

Materials: You will need to make and print a set of cards for this exercise.
Preparation time: 4-6 hours for first time set-up.
Expenses/budget: Minimal, enough office paper or cardstock for 25-30 cards plus printing costs. If you will re-use the cards frequently you may want to have them laminated.
Level of students: Undergraduate.

Sites and map: Worldwide, early domestication centers in the Near East, the Yangtze and Yellow Rivers in China, the New Guinea highlands, the Niger River in West Africa, the Andes mountains in Peru, Mexico's Oaxaca Valley, and the Ohio River valley.

Map by Christopher W. Jones

Dates: Beginning of the Neolithic, 9000-7000 BC (Syria), 8000-7000 BC (China), 8000-7000 BC (Mexico), 8200-5200 BC (New Guinea), 7200-6000 BC (Peru), 4500-2000 BC (West Africa), 2000-1000 BC (Ohio Valley).

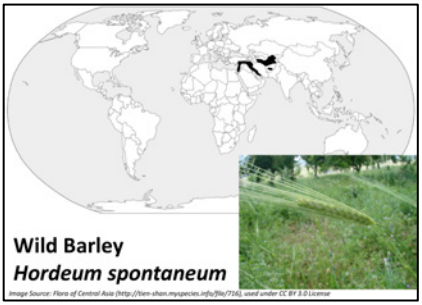
General background/discussion information:
First theorized by the Russian botanist Nikolai Vavilov, Vavilovian centers are regions of the world where we see evidence for the early, independent domestication of plants. A full transition to agriculture requires a variety of crops, and so Vavilov argued that domestication first took place in regions where the wild ancestors of a variety of domestic species naturally occur.

He identified these areas through identifying the wild ancestors of various crops and noting the regions where their natural ranges overlapped.

Domestication is a necessary step towards the development of agriculture, and these centers suggest where archaeologists should search for the remains of early agricultural societies. The number and location of these centers has been debated for nearly a century: Vavilov proposed seven, while others have proposed as few as five or as many as eleven. This exercise uses seven (see map) and simplifies the available crops.

Instructions for the activity:

- Make two sets of cards (examples below, additional cards and table in the Appendix):
  - One set contains domesticated founder crops, their food groups, and the regions where they were cultivated.
  - The other set contains their wild ancestors, including a map showing where these species naturally occur.
  - Two pairs are wild cards which did not originate from a Vavilovian center.



Left: U.S. Department of Agriculture. Right: Flora of Central Asia, used under CC BY 3.0 license. Map by Christopher W. Jones.

- Provide students with a blank outline map of the world as well as pens, markers, or pencils.
- Students should first match the domesticated crops with their wild ancestors. The species names may not always match, but the genus names always will. Geography is also a clue.

- Once students have matched all the crops, the next step is to compare maps from the wild ancestor cards and find the smallest possible area where the natural ranges of these species overlap. Have students shade this area on the blank outline map. Try to define the smallest area which includes the natural ranges of plants representing as many food groups as possible.
- Once students have completed the map, compare their results to the map shown above.

Learning Outcomes:

- To understand the concept of centers of domestication and how they were identified.
- To better understand the origins of the foods that we eat every day.

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Online resources:

Plants of the World Online.

Notes or suggestions for instructors: Works best with 10 students per table. Can be used in a variety of classes to begin a discussion of domestication and the origins of agriculture, including World History, World Prehistory or archaeology surveys, and courses on archaeobotany or human geography.

Life on the Farm: How can we reconstruct past agricultural choices?

By Jennifer Bates

Materials: Idealized diagrams of an Indus village and fields (see Appendix), tables of regions and crops (see Appendix), colored pens.
Preparation time: printing.
Expenses/budget: printing costs (black & white) - suggested B paper size (11 x 17″), but can work on Letter size paper.
Level of students: High school to graduate.

Sites: Indus Civilization (Pakistan and northwest India) and the broader context of the South Asian subcontinent (for map see Appendix). Suggested maps could include rainfall maps and climate maps found in the references below.
Dates: Indus Civilization, Mature Harappan/urban period (c.2500-1900 BC).

General background/information: Agriculture can be defined as the many ways in which crop plants and domestic animals sustain the global human population by providing food and other products, on a continuum from other forms of food or resource acquisition strategies. Agriculture has been a fundamental part of many societies since the beginning of the Holocene 10,000 years ago. However, agriculture is not a singular or simple concept – as today, past human societies are known to have managed crops in a range of ways. Agriculture has played an important part in the rise and fall of many civilizations across the globe.

In northern South Asia c. 2500-1900 BC, a large Bronze Age Civilization reached its urban height. The Indus was located in a unique environmental crossroads, where multiple ecological niches, rainfall gradients, and riverine environments converged. This complexity has led to scholars emphasizing the need to unravel the complexities of Indus agricultural strategies as a fundamental challenge for South Asian archaeology.

Instructions for the activity:
Working together or by yourself, chose a region from the Indus Civilization from the table in the appendix of this volume. This table contains the environmental setting for your land.

- Work out what crops you think are interesting (see Table of Crops in Appendix).
- Chose a color scheme for your crops and make a note of which crop corresponds to which color.
- Look at the crop growing requirements. Some crops can only grow in one season, others grow in two, so you cannot use that land twice. While some crops need to be grown alone, others can be grown together so you can double crop.
- Work out an agricultural strategy using these requirements and your environment setting.
- When you have a strategy, color in your fields. Remember you have TWO diagrams, one for summer and one for winter, and you need to think about both!
- Discuss your strategies with each other – are you going to specialize in a type of crop, like wheat that gives a high yield but needs a lot of water, or mitigate with millet that gives low yield but not a lot of water? Or are you going to diversify and grow lots of things all year just in case something goes wrong in one season or with one type of crop like the cereals or the pulses? Could you try to cash in with a cash crop like a fruit tree or fiber crop that take a long time to grow but give you lots of money? Or are you going for fast, low value bulk crops like pulses?
- Remember: what can your environment sustain? Are you in a dry environment? A very damp environment? Hot/cold? Good summer rainfall or good winter rainfall?

When you are ready, talk to someone in a different region, and see what is different and why, and what might utilizing a different strategy do to your income and trade potential? How are you going to move these food items around when you only have cattle-drawn carts and a million square kilometer civilization to move across? And what happens when the climate changes at c. 2200 BC and the environment becomes more arid?

Learning Outcomes:
This activity explores how farmers faced the challenges of complex rainfall and seasonality, and how much choice they had in their farming strategies. Choice has big ramifications – different options lead to myriad impacts down the line in terms of surplus, sustainability and resilience. Questions about the links between climate change and collapse can be brought up and challenged as students create their own farming strategies in different bits of the Indus Civilization's diverse environment.

- What challenges faced farmers in different regions and what choices could/did they make?
- How diverse was the Indus agricultural system and what impact might this have had on Indus peoples' foodways?
- How complex might the climate event ('4.2k event') that led to less rainfall and sudden aridity at c. 2200 BC have been if this diversity in agriculture was available to Indus farmers?

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Notes or suggestions for instructors: Well suited for an Indus Civilization course and can also be used in climate change modules (correlation debates relating to the collapse/ transformation of civilizations and the role of agricultural surplus). Can be modified for other regions, e.g.: Europe (Bogaard, A., 2005. 'Garden agriculture' and the nature of early farming in Europe and the Near East. *World Archaeology* 37, 177–196).

Signed, Sealed, Delivered: Carving and Using Seals

By Erhan Tamur and Pınar Durgun

Materials: Sculpey III medium firm clay, a rolling pin; talc/baby powder; a toaster oven (optional, see the warning below), sandpaper scraps, seal stones, and seal carving tools (and a brush for cleaning)
Preparation time: None
Expenses/budget:
-Clay: A box of Sculpey III (1 lb) costs around $15 and should be sufficient to make eight seal impressions.
-Rolling pin: The cheapest ones cost only a few dollars. One rolling pin is enough for the entire class.
-Talc/Baby powder: The most affordable ones are sold for $2-3. 4 oz (100 grams) is certainly sufficient.
-Seal stones: Can be found in a variety of stones and sizes on Amazon/Etsy as "Chinese seal stones". If you order the "circle" stones, you can work with cylinder shaped stones. Steatite is easy to carve. A set of 5 is $15.
-Carving tools: You need one per each student. Sets often come with 5-6 carving tools and 5 stones for $25 plus shipping.
Level of students: High school to graduate
Alternative to stone and metal carving tools if you are working with younger audiences: You can use air-dry clay (Sculptit) and form your own cylinder-shaped clay seals. After they are dried, use pencils or tooth picks to carve them.

Sites: The ancient Near East and the Mediterranean
Dates: From sixth millennium BC up until the Hellenistic Period

General background/information: Seals were introduced in the Ancient Near East during the sixth millennium BC and used to secure and authenticate goods, rooms, and documents for millennia to come. They were also markers of individual and group identity, often acting as signatures. Additionally, particular seal stones were considered to have amuletic properties, and some of them were imported from as far as Afghanistan.

A wide range of motifs were carved or incised on their tiny surfaces, leaving a positive impression on soft clay when the seal was rolled or impressed. The most important difference between stamp and cylinder seals is that the latter can be rolled (rather than impressed) multiple times, enabling the user to make a continuous band of a scene, which dramatically increases the compositional potential of the medium.

Instructions for the activity:

- Study reproductions of stamp and cylinder seal designs, choose one and sketch the overall design on a piece of paper. Alternatively, feel free to create your own original design!
- Consider the fact that the design you are about to carve on the seal stone will be reversed when you make the impression.
- Slightly sandpaper your stone's surface before carving it.
- Start from simple incisions marking the boundaries of your design or the siluette of the main figure. Try to practice modelling by making your incisions deeper; and try to pay attention to particular details such as garments and headdresses.
- Carefully carve your stone. Blow or use a brush to get rid of dust.
- When the carving is completed, knead your clay into a ball and roll it out with a rolling pin into a smooth, even thickness of around 1 cm (0.4 inch).
- Spread a tiny amount of talc/baby powder on the clay so that the seal stone does not stick when you impress or roll it.
- Make your impression -- for cylinder seals, do not forget to roll the seal multiple times.
- If you like, you can bake your seal impression in a toaster oven for five minutes at 250 Fahrenheit (120 Celcius) and keep it as a souvenir.

WARNING: After baking a seal impression, you cannot use the same toaster oven to heat up food without cleaning it up substantially. See the FAQ "Is it safe to bake Sculpey in the same oven I use to prepare food?".

Learning Outcomes:

- To discuss and learn the ways in which seals were carved and used in antiquity.
- To experience translating two-dimensional imagery into a three-dimensional medium.
- To experience workshop practices of the seal carver and the use practices of the seal owner.

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Sax, Margaret, John McNabb, and Nigel D. Meeks. 1998. "Methods of Engraving Mesopotamian Cylinder Seals: Experimental Confirmation." *Archaeometry* 40 (1): 1-21.

Online resources:

Cylinder Seals: Tiny Treasures That Leave a Big Impression, The Met.
Mesopotamian Seals. CDLI.
Cylinder seals. Teaching History with 100 objects, British Museum.

Notes or suggestions for instructors: It is possible to lower the budget for the activity if you want to work with air-dry clay. Cylinder seals were often made of stones, which is why the stone gives a more authentic experience for carving and using.

Carving Ancient Egyptian Reliefs

By Jen Thum[31]

Materials and expenses:

- Aluminum or plastic trays (at least the size of a cellphone—disposable aluminum takeout containers are great for this, and you can purchase them online for $0.50 per container or less)
- Plaster of Paris, water, and a bowl for mixing the plaster (purchased in large quantities for a relatively low price, around $1-2 per pound)
- Whisk or similar tool for stirring the plaster
- Table lamp
- Clay-, pumpkin-, or wood-carving tools that can cut easily into plaster and scrape layers of it away, such as metal tools with semicircular tips (tools cost as little as $1 when purchased in bulk or as part of a set)
- Printed templates of ancient Egyptian shapes, such as hieroglyphs, for students to copy or trace (the cartouches of Tuthmosis and Hatshepsut are provided here as an Appendix), pencils
    - Optional: rubber gloves; acrylic paints; paintbrushes; rulers

Preparation time: About 10 minutes to prepare the plaster, and several hours for the plaster to set

Level of students: Middle school and up (with younger students, use plastic tools and softer-set plaster)

General background/discussion information:

In ancient Egypt, stone objects and surfaces such as the walls of temples and tombs were often decorated with texts and images carved in relief.

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31 I would like to thank my colleagues Francesca Bewer and Tony Sigel, and Jonas Clarke Middle School teachers Jonathan Schechner, Kerry Richmond, Lauren Mills, and Jonathan Roy, for their assistance in developing this activity. Recently, I was alerted by P. Durgun that there is a similar activity in this Met volume, which I encourage readers to check out as well.

There were two main types of relief carving in Egyptian art: raised relief, where the background was cut away below the level of the figures, and sunk relief, where the figures were cut below the level of the background. These two types of relief produced different effects: for example, sunk relief was well-suited to outside spaces because it produced strong shadows in the sun. These two types of relief were sometimes combined in the same object or scene. To create a relief, the texts or images were first laid out on a stone surface using red and black pigments. The texts and images would then be carved into the stone following the red and black guidelines. Finally, the relief would be painted.

Instructions for the activity:

- Prepare the plaster ahead of time using water and a whisk in a separate bowl, following the instructions provided with the plaster. This involves mixing small quantities of plaster gradually into a bowl of water, and you may wish to wear rubber gloves while you do this. Pour the plaster into the trays to a depth of at least 1 inch and remove any bubbles from the surface. Allow the plaster to set. (When cleaning the bowl, let the plaster dry first and then scrape or wipe it out of the bowl directly into the trash—never wash wet plaster down the sink!)

Strongly encouraged: assess the texture of your set plaster ahead of time in a test batch. Ideally, it should be soft enough to carve fairly easily with the tools you've chosen. If the plaster is too hard for your tools, you may need to try a shorter set time or add more water to the batch.

- Turn the dried blocks of plaster out of their containers and lay them with their flattest side up, ready for carving.
- Students can begin by sketching Egyptian shapes onto the surface of the blocks with a pencil. They can either lay a printed template on top of the block and apply pressure with the pencil to transfer the outlines to it, or copy the shapes freehand directly onto the block. Another option is to allow students to trace the outlines of cartouches with their names in hieroglyphs onto the blocks.
- Following the outlined shapes, students can carve their designs in different styles of relief—raised and sunk, or a combination of the two. Students should push their blocks against something heavy while carving, so that the blocks have some resistance; for safety's sake, they

should always face the pointed edges of their tools away from their bodies while using them (they may therefore need to turn their blocks periodically while carving).
- Discuss the differences in the craft process for both types of relief: was one more difficult to carve than the other? What process did you use to carve the background away (for raised relief) and to incise the figures into the plaster (for sunk relief)? What do you think the process would be like if carving stone instead of plaster?
- Using a table lamp, explore the effects of raking light on the different types of relief. What are some differences between the way light plays on them? If possible, take the blocks outside and explore in daylight.

Optional: students can apply paint once they are finished carving, which will underscore the fact that the ancient world was a colorful place.
- Example of a raised and sunk relief, Harvard Art Museums.

Learning Outcomes:
- To explore the two types of relief carving made in ancient Egypt: raised and sunk relief
- To experience the differences in process involved in carving reliefs

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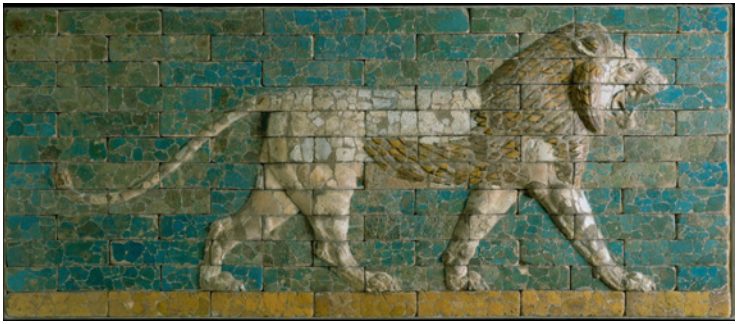
Notes or suggestions for instructors: This activity can be augmented to include engagement with the ancient Egyptian canon of proportions and grid system. Egyptian depictions of the human body followed a system of gridded squares to maintain a canon of proportions and the grid still survives on some stone surfaces that were never carved. Students can use rulers and pencils to lay a grid out on their plaster blocks, adding their own figures over the grid before carving. See Robins 1994 for images of Egyptian figures from different periods with their accompanying grids.

Making Lions at Babylon

By Anastasia Amrhein and Elizabeth Knott



Molded and Glazed Bricks with Striding Lion from the Processional Way, Babylon, ca. 604–562 BCE. The Metropolitan Museum of Art, Fletcher Fund, 1931: 31.13.2.

Materials: Access to online materials and resources; handouts printed on tracing paper (see Appendix)
Preparation time: Less than 10 minutes for printing and/or photocopying
Expenses/budget: Printing costs
Level of students: Late elementary (Grade 4 or 5)

Sites: Babylon, Iraq
Dates: Reign of Nebuchadnezzar II, king of Babylon, 604–562 BCE (Neo-Babylonian period)

General background/information:
Made of thousands of molded and glazed clay bricks, the Ishtar Gate and its affiliated Processional Way were one of the entryways into the ancient city of Babylon. Stretching some 250 meters, this monument featured hundreds of lions, bulls, and dragons—all divine protective beasts. King Nebuchadnezzar II (reigned 604–562 BCE) describes the Gate as a "wonder" to behold and celebrates its construction in his records. An enormous amount of labor and forethought lies behind the colorful walls of the Gate: architects, craftspeople, and laborers had to first mold individual bricks from clay, bake those bricks in a kiln, color the outward-facing surface of the bricks with glaze, re-fire the bricks, and then assemble them.

Instructions for the activity: Suitable for individual or group work
• Introduce students to the ancient city of Babylon and the monument known as the Ishtar Gate (see videos and bibliography below)
• Use the handouts in the Appendix to explore the ways in which the image of the lion relates to the grid created by the bricks. Place the sheet with the grid over the sheet with the lion: What happens if you shift the grid left, right, up, and down? What is the fewest number of bricks that the lion can cover? What is the maximum number of bricks that the lion can cover? Do different arrangements lead you to focus on, or obscure, different parts of the animal?
• Sixty lions were shown marching out from the city on each of the two walls of the Processional Way that led up to the Ishtar Gate. Formulate a mathematical equation to describe the total number of molded bricks needed to make the Processional Way (49x2x60).
• How many unique brick molds were needed to make the Processional Way (49x2)? It is likely that these molds wore out after several uses. How would this affect the calculations?
• In addition to the ~120 lions that paraded down the Processional Way, some 575 bulls and dragons —known from various building stages— were excavated in the vicinity of the Ishtar Gate itself. If the bulls and dragons were made from 40 and 45 bricks respectively, approximately how many molded bricks were used to build the Ishtar Gate? ([40+45]/2x575)
• As a class discuss the steps involved in the creation of the Ishtar Gate from start to finish, the materials used to make the Gate (see 82nd and Fifth video below), the number of different types of workers who might be involved in such a process, and the amount of time such a project might take. Classes can also compare their lion calculations with other animals on the Gate.
• BONUS: Watch a YouTube video or look at photographs (see below) of traditional brick making practices. How would the architects and craftsmen of Babylon have to modify traditional brick molds to make the three-dimensional relief animals on the Ishtar Gate?

Learning Outcomes:
• Practice of critical thinking, reasoning, and mathematical skills
• Provide first-hand familiarity with an ancient Mesopotamian monument

• Increase appreciation for the skill sets that lie behind one of the most iconic ancient artworks

Bibliography:

Amrhein, A., C. Fitzgerald, and E. Knott, eds. *A Wonder to Behold: Craftsmanship and the Creation of Babylon's Ishtar Gate*. New York and Princeton: Institute for the Study of the Ancient World and Princeton University Press, 2019.

Finkel, I. L. and M. J. Seymour, eds. *Babylon*. Oxford: Oxford University Press, 2008.

Graff, S. "Layout and Composition of the Animals from the Ishtar Gate and Processional Way at Babylon." In *A Wonder to Behold*, 135–144.

Online resources:

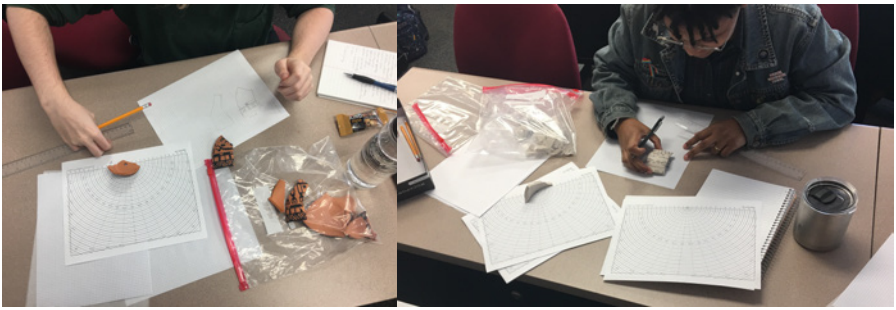
Bricks (in the ancient Middle East) video, by Sarah Graff
The Future of Babylon by World Monuments Fund.
Pergamon Museum Online.
Brick Production near Baghdad video.

Notes or suggestions for instructors:

• Suitable for students who are studying ancient history (Mesopotamia) and working on mathematical and spatial reasoning skills.
• Videos from the World Monuments Fund show the remains of Babylon that are still preserved in Iraq today. The visible remains of the Ishtar Gate are the foundations of the monument's colorful glazed upper levels that are on display today at the Pergamon Museum in Berlin.
• Panels of individual animals can be found in various museums across the world including Detroit Institute of Arts, Metropolitan Museum of Art, Oriental Institute of the University of Chicago, Rhode Island School of Design, and Yale Art Gallery.
• Photographs from the Rifat Chadirji archive on Archnet.org show traditional brick making practices outside of Baghdad, Iraq in the 1970s.
• This activity is based on the exhibit "A Wonder to Behold: Craftsmanship and the Creation of Babylon's Ishtar Gate" at ISAW/NYU curated by Anastasia Amrhein, Clare Fitzgerald, and Elizabeth Knott.

Ancient Greek Vase Painting: Production and Conservation

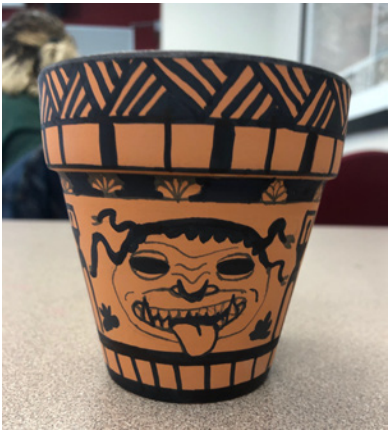
By Maggie Beeler, Sarah Barack, Beth Edelstein, and Chelsea A.M. Gardner



Materials:
Basic: One terracotta planter per student, black acrylic paint, brushes, drawing materials
Technical study and conservation add-on: rulers, graph paper, tracing paper; rim chart & calipers (optional); painter's tape, PVA adhesive, hammer, plastic bag, eye protection
Ceramics add-on: clay slip, deflocculant (Darvan 7), water, filters or sieves
Preparation time: Varies, 15-45 mins
Expenses/budget:
Basic: $7 per student (unless some materials already available)
Conservation add-on: $7 tape, $5 glue
Ceramics add-on: $21 gallon of slip, or $3.50 50lb bag of dry slip; $7.25 deflocculant; $25 each for mesh sieves of 2 different sizes (recommend 40 and 100). The Ceramic Shop.
Level of students: 3rd-12th grade, undergraduate to graduate

Dates: 625-600 BCE - 480 BCE for Athenian black-figure pottery. However, this exercise can be adapted for any pottery-using culture.

General background/discussion information:
Around 625-600 B.C.E., vase painters in and around Athens adopted the black-figure technique, painting dark-colored figures on a light background with incised details. Originating in Corinth almost a century earlier, black-figure uses silhouetted figures to tell a story, commemorate



an event or person, or depict sporting activities. The figures are painted in solid black on a red ground, and added color and incision are used for anatomy and details. Incision is the removal of slip with a sharp instrument to create a thin line that lets the red background show through. Black figure painting is accomplished by using a specially formulated clay slip to paint over the red ground, and a multi-step firing process that allows the figures to fire to black while the background remains red.

Instructions: Basic activity (all ages)

1. Explore and discuss images of Greek vase paintings that relate stories, like Hercules and his labors (Examples: www.getty.edu 96.AE.59, 86.AE.80, or 86.AE.85).
2. Divide a familiar story into representative images or scenes (e.g. Little Red Riding Hood, or other age-appropriate stories). Alternatively, students may choose their own stories and draw 2-4 pictures that represent actions or significant moments in the story. Advanced students may prefer to replicate ancient examples rather than creating new images.
3. Students paint the scenes using black acrylic paint on a terracotta pot. Students can add their signature, a meaningful phrase, or other graphic personalization, as Greek potters would have.

Instructions: Technical study/conservation add-on activity - examining and restoring pottery (middle/high school to university)

1. Create pottery fragments, called "sherds":
   - Instructors (or older students) enclose the finished and dried vessel in a thick plastic or fabric bag or wrap, then use a hammer to gently break apart into large sherds.
   - To replicate the archaeological experience, discard one or two sherds, and have students trade vessels with each other.
2. Technical study - Explore how archaeologists study and document pottery

- Divide the sherds into three groups: rim, body, and base sherds.
- Use the rim and base sherds to measure the diameter of the vessel rim and base on a rim chart. Record the measurements on your graph paper.
- Choose a decorated body sherd and trace its outline in pencil on the graph paper; use the ruler to double-check and adjust measurements. Measure the different elements of the design to illustrate on the graph paper. Add a 1:1 scale and your name below.
- Place a piece of tracing paper on top of your graph paper drawing and trace it in pencil, then ink, then erase the pencil to complete your inked drawing. Advanced classes may digitize the sherds following the steps in the link in the Resources section.

3. Conservation practical - Explore how conservators restore a broken vessel

- Reassemble sherds using low-tack blue or green painters' tape across joins, to test the fit of the sherds. Start from the bottom and build upward, making sure not to lock out any pieces.
- Once complete, adhere fragments together using Elmer's glue or other PVA white glue. The tape can be used again to keep fragments aligned while the glue dries.
- Discussion questions: What was difficult or easy about the exercise? How might the original design have looked? Can you deduce any missing image sections? Do you need to fill in any missing sections - why or why not?

Instructions: Ceramics add-on activity - exploring clay slip (high school/ university)

During firing of Attic black and red figure pottery, the slip used to paint the black glossy areas would sinter (fuse into a glassy state) during the middle stage of firing so that, in the last stage of firing, these areas did not return to a red color in the way that the background did. In order to accomplish this, the black slip has to have a particular particle size that differs from the red background areas, even though the source clay is generally the same. Research into the methods used by Greek potters suggests that they prepared the slip used for the black figures by levigation - letting larger particles settle out of liquid slip - and/or adding materials to separate the

particles of clay. Other materials may also have been added to improve sintering.

If time, equipment, and expertise allow, this unit can be expanded to include hands-on practical experience with slip. Possible activities include:

1. Hands-on making slip from crushed dried clay.
2. Adding deflocculants and epsom salts to slip to observe differences in viscosity (can start from commercially available liquid or powdered slips):
3. Levigating slip - adding extra water and allowing heavier particles to settle, or sieving slip through fine screens
4. Slips with and without flocculant, with different amounts of water, or sieved to make different particle sizes can then be applied to a leather-hard clay surface, and students can observe how they dry - do they flatten out, remain raised, dry faster or slower, etc.

Learning Outcomes:

- Introduce students to ancient visual culture
- Understand how stories can be told in images
- Close looking and examination of archaeological ceramics
- Introduce issues related to archaeology and conservation
- Introduce illustration skills and measuring practice
- Puzzle solving and manual dexterity practice
- Learn about ceramic materials and slips

Online resources:

- Black figure technique, Art Institute of Chicago.
- Athenian Vase Painting Metropolitan Museum of Art.
- Johns Hopkins project (links to weeks 6 & 8 focus on slip).
- Greek Vase-Painting, an introduction Khan Academy.
- Hercules and his Labors.
- Behavior of clay particles.
- Digitizing measured drawings of ceramic sherds.

(Optional) Slip research:

Walton et al. (2013). Compositional Characteristics of Athenian Black Gloss Slips (5th c. BC.). *Microscopy and Microanalysis*. 19. 1400-1401.

Roman Portraiture: #veristic, #classicizing

By Alena Buis

Materials: Flip charts, markers, print outs of specific images (use examples from Republic, Early Empire, Middle Empire, Late Empire)
Preparation time: none
Expenses/budget: $5-$10
Level of students: High school to graduate

Dates: c. 509 BCE to 330 CE

General background/discussion information:
Today many politicians think very carefully about the image they portray. In our media saturated world, they strategically craft photographs, ads, social media, and campaign commercials to convey their beliefs and agendas. In Roman art politics and propaganda were also closely linked. At different times Roman politicians employed different stylizing elements that could be described as either veristic or classicizing.

Instructions for the activity:
- Organize flip charts, markers, print outs of images
- Divide class into small groups (3-5 depending on class size) at each of the stations
- First have group identify the work, then consider the work's form, content, and context
- Identify the strategy employed – veristic or classicizing
- Have them come up with relevant hashtags for the work
- Discuss why they have selected these key words and why they are relevant and record
- After 10 or 15 minutes (monitor their progress and adjust accordingly) have students rotate to the next flip chart
- Have learners read previous answers and add their own hashtags
- Repeat until all students have rotated back to their original flip chart
- Debrief as a class, assess understanding, and redirect as needed.

Learning Outcomes:

- Identify works of Roman portraiture
- Describe the form, content, and context of Roman portraiture
- Explain and differentiate veristic and classicizing portraiture
- Discuss the power of imagery to communicate ideology
- Summarize critical aspects of Roman portraiture
- Make connections between Roman portraiture and the visual culture of our world
- Look closely and think critically

Bibliography:

Breckenridge, James D., *Likeness: A Conceptual History of Ancient Portraiture*. Evanston, Ill.: Northwestern University Press, 1968.

Grant, Michael. "Roman Coins as Propaganda." *Archaeology* 5 (Summer 1952), pp. 79–85.

Kleiner, Diana E. E. Roman Sculpture. New Haven: Yale University Press, 1992. Pollini, John, ed. R*oman Portraiture: Images of Character and Virtue*. Exhibition catalogue. Los Angeles: Fisher Gallery, University of Southern California, 1990.

Toynbee, J. M. C. *Roman Historical Portraits*. Ithaca, N.Y.: Cornell University Press, 1978.

Varner, Eric R., ed. *From Caligula to Constantine*: Tyranny & Transformation in Roman Portraiture.

Online resources:

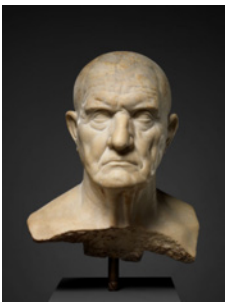
- Becker, Jeffrey A., "Head of a Roman Patrician," Ancient Rome. Khan Academy.
- Hendrix, Elizabeth, Deborah Schorsch, James H. Frantz, Dorothy H. Abramitis, Michele Marincola, and Richard E. Stone "Appearance and Reality: Recent Studies in Conservation." *The Metropolitan Museum of Art Bulletin*, v. 55, no. 3 (Winter, 1997–98).
- Nickel, Helmut "The Emperor's New Saddle Cloth: The Ephippium of the Equestrian Statue of Marcus Aurelius." *Metropolitan Museum Journal, Vol. 24* (1989).

- Trentinella, Rosemarie. "Roman Portrait Sculpture: The Stylistic Cycle", *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art, 2000–.
- Trentinella, Rosemarie. "Roman Portrait Sculpture: Republican through Constantinian" *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of art, 2003.

Notes or suggestions for instructors:
This activity could be adapted to a variety of different subject matter. It could also be adapted to online formats where students post images and include hashtags in the captions to demonstrate their understanding of key elements.

Example (also see Appendix):

Work title	Marble Bust of a Man
Artist if known	Early Imperial, unknown artist
Date	Mid-1st century AD
Form	Marble, Bust (head and shoulders)
Content	Male figure, recording the age, Wearing a toga – part of ritual
Context	Recalling the virtues of the Roman Republic, In the collection of the Met, purchased in Rome 1912
Classizing or veristic	Veristic
Hashtag(s)	#realistic #iwokeuplikethis #nofilter



How and Why did Babylonians Use Quicklime?

by Sandra Heinsch, Walter Kuntner, and Wilfrid Allinger-Csollich

Photos by W. Allinger-Csollich

Materials:

- sand to level the test area (if necessary)
- for each brick layer: ~50 kg/m² (~10,2 lb/sq sf) calcium quicklime (>90%); ~50 kg/m² (~10,2 lb/sq ft) loam (dry); ~20 l/m² (~0,5 gal/sq ft) water; 1 m² (10,76 sq ft) reed mats, bricks (cheapest type as shape and quality are not relevant)
- tools: watering can, hand shovel, watertight but removable enclosure i.e. polystyrene tiling (e.g., amazon.com, home depot, or hardware store)
- raw materials are easily available at online specialised retailers and hardware stores,[32] but ask also construction companies, recycling facilities or trash dumps
- Optional: gypsum, BBQ thermometer (500°C / 932 °F) with at least 15 cm (5,9 in) long dipstick

Precautions:

- For safety: face visor, goggles, waterproof gloves and protective clothing (no skin exposed)
- Outdoor location recommended
- Warning: caution is advised, slaking generates heat, splashing and fuming

Preparation time: none

Expenses/budget: $150 - $200

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[32] Quicklime: i.e. mississippilime.com/products/quicklime/; reed mats from Amazon.

Level of students: High school to graduate, particularly suited for an architecture or historic preservation class
Sites: Birs Nimrud (ancient Borsippa), Iraq
Dates: From the late third millennium BCE onward; particularly well studied for Late Babylonian architecture (626-539 BCE)

General background/discussion information:
Mesopotamian architecture goes hand in hand with technical innovation, which can be seen in huge brick constructions such as temples, palaces, and city walls. The engineering achievements in mortar technology and joint sealing were of fundamental importance. This led to a highly specialized use of different sorts of clay, bitumen and most importantly, quicklime, which combined and improved upon the advantages of clay and bitumen. The archaeological investigations at the ruins of Birs Nimrud, the ziqqurrat of Borsippa, in modern-day Iraq have documented the use of different methods of slaking and the use of quicklime in monumental architecture.
The experiment described below intends to give insight into the purpose of the mortar mixture of lime and loam. This mortar mixture was used to achieve a horizontal bonding of the bricks within a course rather than a vertical bonding of the brick courses as the hard-baked loam does not form a bond but rather a hard levelling layer. Thus, the bricklayers form several superimposed but separate units, which act like a flat spring, better balancing the pressure and settlement loads in the masonry caused by the seasonally shifting alluvial groundwater level. The use of lime mortar prevented, moreover, capillary absorption of the groundwater. The mats prevent the poured water from washing away the mortar mixture and protect the workers from the slaking reaction, while the loam guarantees an even water-release to the quicklime.

Instructions for the activity:
It is advisable to use a pit or a watertight but removable enclosure to conduct the experiment. Take care to have a horizontal and even surface and place the first layer of bricks preferably on a sand level. Cover the bricks with a consistent 1.5 cm (0,59 in)—thick layer of quicklime (see safety instructions!) followed by an equally thick layer of loam and finally

with thin reed mats (fig. 1). Pour evenly about 20 litres of water per m² (~0,5 gal/sq ft) (fig. 2) and lay the next layer of bricks. The slaking of the quicklime reacts immediately and quickly binds the lime, which remains, however, easy to model for some hours (if left overnight the mortar will become solid and water resistant). Repeat this procedure to a maximum of three times (keep in mind that you will have to remove and dispose of this construction after the experiment!). Alter the thickness of the lime/loam layers and/or use different mixtures of quicklime; for example, by adding sand, gypsum or half-burnt quicklime (see safety instructions!). Measure the temperature of the slaking reaction. During our experiment, we reached a temperature of only 90°C / 194 °F, because for safety reasons, we only used half-burnt lime (<50%) (Pure quicklime (>95%) can easily reach temperatures of over 450°C / 842 °F!).

Learning Outcomes:

- Understanding the process of lime slaking in order to explore which kind of lime mixtures were used in antiquity for which purpose
- Consider the advantages of this technique for Babylonian architecture
- Consider the advantages of using this method in today´s construction industry or in monument conservation.

Bibliography:

Allinger-Csollich W., Birs Nimrud I: Die Baukörper der Ziqqurrat von Borsippa. Ein Vorbericht. *Baghadader Mitteilungen* 22 (1991): 383-499, Tafel 48-55.

Rapp G., *Archaeomineralogy*. Berlin-Heidelberg: Springer, 261-263.

Carran D., Hughes J., Leslie A. and Kennedy C., A Short History of the Use of Lime as a Building Material Beyond Europe and North America. *International Journal of Architectural Heritage: Conservation, Analysis, and Restoration* 6:2 (2012): 117-146.

Swallow P. and Carrington D., Limes and Lime Mortars—Part One, *Journal of Architectural Conservation* 1:3 (1995): 7-25.

Online resources:

Hot mixed lime.

Quicklime and water reaction.

Playing Architect: Designing Ancient Structures

By Carl Walsh

Materials: A huge variety of mediums can be used for this project. Suggested range includes software such as Adobe Illustrator and Procreate, construction games such as Minecraft, simple drawing tools, and physical modelling equipment.
Preparation Time: This is designed to be done over a semester.
Expenses: Variable according to materials chosen.
Level of students: Undergraduate

Figure 1: A Cycladic palatial building from Bronze Age Akrotiri, Greece, designed through Minecraft. By Dominic Morganti.

General Background/Discussion Information: This activity is best suited to a class project, where students can play the role of an architect in designing and learning about ancient architecture and built environments. I used this to explore the architecture of ancient palaces and their experiential aspects in the Bronze and Iron Ages in the Mediterranean and Near East, but this can easily be applied to other cultures, periods, theories, and building types. Students chose a culture, period, and site to locate a palace and then designed the structure according to comparisons with other palace sites known in the archaeological record. A basic architectural floor plan was required along with a written and referenced document outlining the function and context of the building, comparisons with known archaeological examples, and justifying design decisions based on intended functions and experiential aspects.

Instructions for the Activity:
Building Selection: Teacher or student should select a culture, period, building type, and site to work with. Completely new structures can be designed at existing sites, challenging students to locate an appropriate

area to build. Alternatively, incomplete existing structures can be completed, challenging students to understand the archaeological remains in detail. Both can produce different but engaging challenges.
Preparation and Research: Discuss with student relevant literature and archaeological examples. Regular meetings and feedback work best in helping students tackle issues such as producing architectural plans, understanding architectural design and remains, and brainstorming and collaborating on design ideas.
Display: Since this type of project can have rather spectacular results, from elaborate drawings, complex digital models, and physical models, you may want to finish with an exhibition of students work. I created a small display cabinet showing student's work and objects from the universities collection and had an exhibition class where all projects could be shown and discussed by students.

Learning Outcomes:

- Understanding of the architectural style, design, techniques, materials, and functions of buildings.
- Considering the experiential relationships between landscape, built environments, architecture, and the human body and behavior.
- Learn how to produce basic architectural plans of ancient structures.

Bibliography:

- Drawing architecture: Unwin, S. 2020. *Analysing Architecture*. London: Routledge.
- Experiential aspects of architecture: J. Pallasmaa 2005. *The Eyes of the Skin. Architecture and the Senses*. Hoboken, N. J.: Wiley and Sons.
- Phenomenological aspects of architecture: M. Bille, T. F. Sorensen (eds.) 2016.

Online Resources:

- Digital Reconstruction of Neo-Assyrian Palace by the Metropolitan Museum of Art, New York.
- Digital Reconstruction of an Egyptian Palace at Tell el-Dab'a, OREA, Institute for Oriental and European Archaeology (ÖAW).

The Iron Age House of Graham Crackers

By Cynthia Shafer-Elliott

Materials and budget: Prices are approximate.

- Graham Crackers ($2 -$3. 1 box for each house to be built)
- White Frosting (about $2 a tub. 1 for each house to be built)
- Candy (I get the larger packs if making multiple houses: Kit Kat miniatures party pack $14, Rolo's $5, M&M's family size $5)
- Mother's Circus Animal Cookies ($4)
- Heavy duty Chinet oval platter paper plates ($6), plastic table cloths or garbage bags ($5), plastic cutlery ($2), wipes ($3)

Preparation time: 5-10 minutes
Level of students: Undergraduate

Sites and dates: Iron Age Israel (ca. 1200-586 BCE) or any other area/time period with house models.

General background/information:
In order to understand the daily lives of ancient people, we must shift our focus from the monumental palaces and temples, to the stage where daily life occurred - the home. During the Iron Age, a common layout for a house can be seen throughout ancient Israel. The floor plan consists of two or three long rooms often subdivided with pillars and boundary walls, with a shorter "broad" room running perpendicular at the back of the house. It is thought that ancient Israelite houses were two stories with a flat roof. The first floor was used for a variety of activities (such as baking, cooking, weaving, storing food, and sheltering animals), while the top floor was where the household members would sleep and also conduct some light household tasks. The flat roof could also be a place to conduct household chores or for sleeping in the hot summer months. A courtyard in front of the house was also used as a workplace in the dry season. The house in ancient Israel was the nucleus of everyday life.

First introduce the form and function of the Iron Age (so-called Israelite, 4-Room) house. You can use the drawing of a house from King and Stager's book: Israelite House. Then students create their own Iron Age House in groups.

Instructions for the activity:

- Arrange the room so that each group will have their own workspace.
- Each workspace should be covered with plastic bags (for easy clean up) and should have all the supplies there: one box of graham crackers, one tub of frosting, a couple paper platters, some plastic cutlery, Kit Kat's, Rolo's, M&M's, and Circus Animal cookies. Provide each group with a handout of the drawing of the Iron Age House.
- Divide students into groups and have them create their own Iron Age House for most of the session.
- Allow for time at the end of the class session for each group to "show and tell" their house to the rest of the class.

Learning Outcomes:

- Have a hands-on knowledge of the basic form and function of the typical Iron Age house.
- Apply their new knowledge to their understanding of the daily life of the average ancient Israelite household.

Bibliography:

Borowski, O. 2003. *Daily Life in Biblical Times.* Archaeology and Biblical Studies Series 5. Edited by Andrew Vaughn. Atlanta, GA: Society of Biblical Literature.

Shafer-Elliott, C. 2018. "Household Archaeology". Pages 161-164 in *The Five Minute Archaeologist in the Southern Levant.* Edited by Cynthia Shafer-Elliott. Sheffield: Equinox.

Stager, L. E. 1985. "The Archaeology of the Family in Ancient Israel." *Bulletin of the American Schools of Oriental Research* 260: 1-35.

Online resources:

Penn Museum, Daily Life in Ancient Israel.

Harvard Museum of the ANE, Ancient Israelite House.

How were clay tablets made and how does cuneiform work?

By Sara Mohr and Willis Monroe

Materials: Wooden chopsticks with right angled edges (on at least one end)
Crayola air-dry clay (preferably terracotta colored)
Ample paper towels
Cuneiform worksheets
Preparation time: 2 minutes
Expenses: 5-pound pack of Crayola air-dry clay - $12.99 (per 8 students)
40 pairs of disposable chopsticks - $5.95

Sites and dates: Mesopotamia (what is now Iraq) from 3200 BCE to 75 CE

General background information: Cuneiform is one of the earliest systems of writing, invented around 3200 BCE in ancient Mesopotamia, what is now Iraq. The name comes from *cunea*, meaning "wedge" and form, meaning "shape." Cuneiform is characterized by its wedge-shaped marks formed from impressing a square-edged reed (stylus) into clay. It is important to note that cuneiform is a writing system or script, and not a language. Languages written using cuneiform include Sumerian, a linguistic isolate, and Akkadian, an early Semitic language related to Arabic and Hebrew. The cuneiform system consists of logographic signs that represent entire words and syllabic signs, representing sounds.

Instructions for the activity:
Instructor: Provide your students with a handout outlining basic cuneiform signs (see Appendix). This might include some of the most common logograms as well as the most common vowel-consonant and consonant-vowel signs.

Students: Using your hands and the support of the table, form your clay into a lenticular-shaped tablet (above) or a rectangular-shaped tablet (like a cell phone). Using the square-tipped edge of your chopstick, impress wedges into your tablet. As you make different wedges, practice turning both the tablet and your stylus to form the shapes you want. Your wedges will look best if you only impress one corner of the end of the chopstick. You can make a small wedge by lightly pressing just the corner, or a wedge with a long tail by pressing the corner and then lowering the angle of the chopstick so the edge presses into the clay, both shapes are needed to write many cuneiform signs.

Possible Guiding Questions:

- Is it possible to write cuneiform with your non-dominant hand? How does it require you to hold the stylus differently?
- What do you notice about the shape of your wedges and the shape of wedges carved into stone?
- Practice different methods for holding the stylus and the tablet. Do you prefer one over another? Why is this?
- How does the angle of light affect your ability to see the wedges? If you can, try looking at the tablet in sunlight.
- The cuneiform syllabary does not have the same letters as English, how can you write your name by approximating different sounds? Do you know anyone who's name originates from a language that doesn't use our alphabet, how closely does their name match how you pronounce it?

Learning outcomes:

- Identify how cuneiform writing was produced with the tools of the time period.
- Evaluate the extent to which different materials require different methods of producing the same text.
- Construct cuneiform tablets.

Map of Mesopotomia. Wikimedia Commons.

Bibliography:

Cammarosano, M. 2014. "The Cuneiform Stylus." *Mesopotamia* (44): 53-90.

Taylor, J. 2011. "Tablets as Artefacts, Scribes as Artisans." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 5–31. Oxford Handbooks. Oxford ; New York: Oxford University Press.

Taylor, J. and C. Cartwright. 2011. "The making and re-making of clay tablets." *Scienze dell'antichità* 17: 297-324.

Walker, C. B. F. 1993. *Cuneiform*. London: British museum press.

Online Resources:

CDLI:wiki Cuneiform Writing Techniques
How to Write Cuneiform
Writing Cuneiform

Notes or suggestions for instructors: This activity can be combined with the following activity for more advanced students.

Writing a Cuneiform Letter

By Klaus Wagensonner

Materials: Sculpey III medium firm clay (or sculpture's clay); a chopstick/ wooden stick.
Preparation time: 5 min
Expenses/budget: A pack of Sculpey III (8 oz) costs around $ 9. This pack should cover about 4 small tablets. Tan- or hazelnut-colored Sculpey best approximates the color of cuneiform tablets.
Level of students: High School to graduate

Dates: Cuneiform is attested from about 3300 BCE to 100 CE and therefore changed significantly over time. The signs chosen for this activity were used ca. 2000–1600 BCE.
Primary sources: There are currently c. 500,000 cuneiform tablets in museums and collections worldwide. They cover all kinds of topics (economy, correspondence, royal inscriptions, literature, mathematics, medicine, astronomy, etc.): A selection letters of various periods.

General background/information:
Cuneiform signs consist of combinations of horizontal, vertical, and slanted impressions. A simple sign can be made up of one to four impressions; more complex signs have usually ten to fifteen individual impressions. Pupils learnt how to inscribe clay tablets from master scribes. The duration of the training was dependent on the level of literacy. A simple administrative scribe did not need to learn the roughly 1,000 different signs with all their readings and meanings. This level of training was reserved for individuals who would enter a career of scholarship.

"Go! Knead your tablet! Make (it)! Write (it)! Finish your tablet!" (< from an ancient vocabulary)

Instructions for the activity: Use the cuneiform list in Appendix.

- Follow the instruction in the previous clay tablet activity (by Mohr and Monroe) to make a tablet. Now it's time to write a letter!
- Choose one or two recipients in your group you may want to send a letter to.
- Letters consist of various parts, a letter head, followed by blessings, and the body of the letter.
- A letter, or any text for that matter, usually covers more than just the front side or obverse. Scribes may also use the lower edge, the reverse, the upper edge, and finally the left edge as writing area. The following image from the Yale Babylonian Collection shows a letter, whose scribe used all sides of the tablet.
- Letter head: First, take the signs A and NA from the syllable list to write the preposition ana, "to." This preposition is followed by the name or names of the recipient(s).
- Use your stylus to make a horizontal line below. These lines visually separate the writing space, line by line.
- Sender: In the second line write the signs KI, BI, and MA for a verb qibima, "speak!". Write the signs UM and MA for the particle umma, "thus," followed by your own name written in syllables and finally the sign MA.
- Body of the letter: Although letters are often formulaic, Mesopotamian scribes used a plethora of expressions depending on what they wanted to convey. Try to write one of the following sentences:
    - No news:

esh-ri-shu ash-ta-ap-ra-ak-ku-um u-ul ta-pu-la-an-ni
I have written to you ten times, but you did not answer.

    - When you want to hear news:

shum-ma i-na ki-it-tim a-hi at-ta shu-lu-um-ka shu-up-ra-am
If you are truly my brother, send me news about your well-being.

    - You want to hear a response:

me-he-er tup-pi-ia shu-bi-la-am
Send a response to my letter (lit. tablet).
Note: You can find more examples here.

Translation of this tablet:
Speak to Marduk-muballit, thus says Sagila-mansum. May Shamash and Marduk keep you in good health.
Ten rams of the house of the fattener will travel to me in Babylon on my raft. Send me two fatteners with those ten rams. Also, have (enough) fodder to last until month VII transported to me.
I have sent my tablet to Sin-iddinam concerning the release of the distrainees of Mar-Sippar whom Sin-iddinam had distrained. Release his distrainees until Mar-Sippar comes to Isin and they give him satisfaction.
Also, send me a response to my tablet.

Learning Outcomes:

- Learn about how ancient people communicated their thoughts and recorded information.

Bibliography:

Frahm, Eckart, and Klaus Wagensonner. 2019. "Cuneiform Writing. Origins, History, Decipherment." In: Agnete Lassen, Eckart Frahm, and Klaus Wagensonner (eds.) *Ancient Mesopotamia Speaks ... Highlights from the Yale Babylonian Collection* (New Haven), 23–43.

Wagensonner, Klaus. 2019. "Becoming a Scribe." In: Agnete Lassen, Eckart Frahm, and Klaus Wagensonner (eds.) *Ancient Mesopotamia Speaks ... Highlights from the Yale Babylonian Collection* (New Haven), 139–47.

Online resources:

- Cuneiform Digital Library Initiative
- Open Richly Annotated Cuneiform Corpus
- Yale Peabody Museum collections search
- British Museum collections search

Multi-lingualism: What language should we choose?
by Kathryn McConaughy Medill

Materials: Enough copies of the instructions that each group of 4 students has a copy (with the 4 characters separated)
Level of students: High school to graduate

Regions and Dates: Egypt and Canaan, 1400-1300s BC (Late Bronze Age)

General background/discussion information:
As individuals, we use language to communicate our identities; likewise, when a community chooses an official language or writing system, it is signaling its identity. But which language--and which identity--to choose? During the 1400s BC Egypt took over Canaan, seeking control of trade and a buffer against other empires; the local Canaanite rulers swore their loyalty to Egypt. But what language would the Canaanite rulers use to communicate with their new overlord?

Instructions for the activity:
Divide into groups of four. Each of you is a person living in Canaan during the 1400s BC, as described on your character sheet. In your group, share your opinions on which language Canaanite officials should use to communicate with Egypt: Egyptian, Canaanite, Old Babylonian, Middle Babylonian, or Canaanized Akkadian. Can you come to an agreement?

[After the activity: In the end, Canaanized Akkadian became the standard. However, the Canaanite scribes were flexible in their use of language - they sometimes borrowed words from Egyptian or Canaanite or switched into Middle Babylonian for whole (formulaic) sentences. Scribes who knew Canaanized Akkadian had to be employed by the Pharaoh in Egypt to read the letters that came from Canaan.]

1. *Tabi, an Egyptian captain of archers (speaks Egyptian, Canaanite)*
"What language should you use? Well, you can't write Egyptian. Egyptian is *the* language, the language of the gods and of our Glorious Sun, the Pharaoh.

You want to use Middle Babylonian? The language of the kings of Babylon? Why should we use the language of Pharaoh's enemies? Are you all traitors to Egypt? I could report you, you know! Choose a different language!"

2. *Nimshi, a court scribe (speaks Canaanite; writes Canaanized Akkadian, Middle Babylonian)*
"If Pharaoh has no objection, why shouldn't we keep using the same language that scribes have been writing for the city-rulers for generations? Canaanized Akkadian is our own special scribal language. I and my brothers, uncles, and other relatives who are scribes already use it, so this is the most elegant and most practical solution.

If you object to that, why not use Middle Babylonian? It is the language of today's Babylon, in which all the wonderful literature of Mesopotamia has been copied! Oh, the regularity of the sign forms! The variety of the word lists! I don't know why you think Pharaoh would object - he and the king of Babylon send so many gifts to each other. It's not as if they're at war. Don't suggest Canaanite - Canaanite has never been written! Imagine how difficult it would be for all the scribes of Canaan to learn to write a new language! How would we ever agree on spelling?"

3. *Idibbaal, a copper miner (speaks Canaanite; writes Canaanite [?])*
What language should we use? … We're in Canaan, we all speak Canaanite, we should write Canaanite. Be proud of your Canaanite heritage! There's no need to change our language for the sake of these empires that come and go.

Yes, yes, I know Canaanite hasn't really been written. But I've invented a new writing system that will help with that. I'm thinking of calling it an alphabet. Instead of each person having to learn hundreds of signs for words and syllables, they can just learn twenty-three--one for each consonant! Why, I bet even ordinary people could learn to read and write if we used my alphabet."

4. *Milkah, a merchant (speaks Canaanite, Aramaic, Egyptian, Phoenician, etc.; writes a little Old Babylonian with Egyptian numbers)*
"Now I've been up and down the King's Highway, I've been to Tyre and Sidon. So I haven't just been in Canaan - I've been everywhere. Why don't we use Old Babylonian? Every scribe in this region can read it. Pharaoh's scribes can read it. How are Pharaoh's scribes supposed to read Canaanite or Canaanized Akkadian?

It's no use saying Old Babylonian is the language of the enemy. Maybe that's true for Middle Babylonian, but Babylon hasn't used Old Babylonian in centuries. The language belongs to us now - to all the people of this region!"

Learning Outcomes:
- To experience how communities choose which language variety and writing system to use,
- To consider how factors like ideology, education, history, and identity impact these choices.

Bibliography:
Izre'el, Shlomo. 2012. "Canaano-Akkadian: Linguistics and Sociolinguistics." Pages 171-218 in *Language and Nature: Papers Presented to John Huehnergard on the Occasion of his 60th Birthday*. Edited by R. Hasselbach and N. Pat-el. Chicago: Oriental Institute.

Sebba, Mark. 2012. "Orthography as Social Action: Scripts, Spelling, Identity and Power." Pages 1-20 in *Orthography as Social Action: Scripts, Spelling, Identity and Power*. Edited by S. Johnson et al. Boston: de Gruyter.

Wardhaugh, Ronald. 2010. "Standardization." Pages 31-40 in *An Introduction to Sociolinguistics*. 6th ed. Wiley-Blackwell.

Online resources:
Amarna letters.

Notes or suggestions for instructors: For courses on Ancient Near Eastern history or society, especially in units on the Late Bronze Age.

Rosetta Stone

By Christian Casey

Materials: Handout (see Appendix)
Preparation time: Minimal
Expenses/budget: Printing the handout
Level of students: High school to graduate, Egyptian language beginners

Sites and dates: Rashid/Egypt ,196 BCE
Primary sources: The Rosetta Stone (EA24)

General background/information:
The process of deciphering the ancient Egyptian script began with the discovery that some hieroglyphs record phonological information. Before the early 19th century it was believed (and often still is believed) that hieroglyphs are pictograms, i.e. that they represent the things they describe. In the same way that the letter 'A' depicts a simplified, inverted ox head (𓃾 → A), hieroglyphs look like real-world objects while representing linguistic phenomena. These are not simple pictures, and breaking away from this incorrect understanding is an important first step in learning to read Egyptian.
This activity encourages new students to prove to themselves that some hieroglyphs are phonetic by requiring them to confront a situation in which pictographic writing breaks down: names. Foreign names are simply arbitrary sequences of sound. As a result, no script, no matter how pictographic, could ever represent a foreign name without devising a way to represent phonetic values.

Instructions for the activity:
Briefly introduce the history surrounding the discovery of the Rosetta Stone and Champollion's decipherment. Highlight the importance of names for identifying phonetic values. Then provide the worksheet and stand by to help with difficulties as they arise. For instance, the students will probably have trouble determining which direction to read the signs in at first (though it is entirely possible to solve the activity without instructions regarding reading direction). Be ready to help them to work through these

difficulties. At all times, allow the students to direct the experience. They will ask for help when they get stuck.

Learning Outcomes:

- A deeper understanding of the methods of decipherment.
- A rough knowledge of some uniliteral sign values (these will need to be shored up and corrected in a later activity).
- A sense that Egyptian hieroglyphs can be deciphered using the tools students already have at their disposal.

Bibliography:

Parkinson, R. B., Diffie, W., Fischer, M., & Simpson, R. S. (1999). Cracking Codes: The Rosetta Stone and Decipherment. London: British Museum Press.

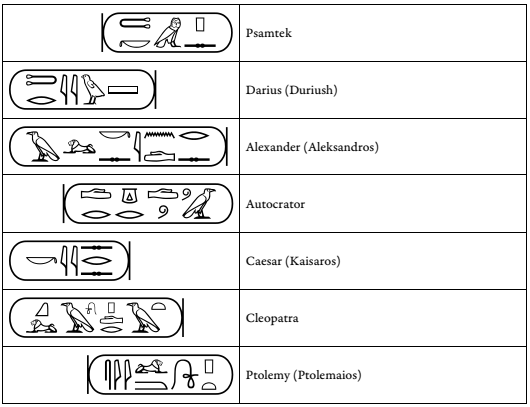
Lepsius, R. 1849. *Denkmäler aus Ägypten und Äthiopien*. Berlin: Nicolaische Buchhandlung.

See Appendix for printable version of this:

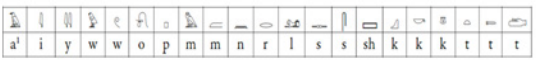
Rosetta Stone

Part 1: Determine the sounds of these hieroglyphs...

... using the names of these famous kings who once ruled Egypt:



Answer key:



Tabula Rasa: Experiencing the Roman Wax Tablet

By Nathalie Roy

Materials and Expenses:

1. Beeswax, a 32 oz bag ($15), and should produce about 50 tablets.
2. Carbon black, a .75 oz jar ($7)
3. Manicure sticks to serve as styli (writing utensils) a pack of 100 costs about $6.
4. Cheap wooden photo frames for crafting, a set of 10 (~$23). Better than this would be a woodworker friend with a router who can take thin slices of wood and hollow them out. The Roman process most likely involved a wood chisel and hammer (see Bloomberg video)
5. Packing tape or duct tape, 1-2 rolls cost about $10.
6. Sandpaper of low grit (optional), 1 pack costs about $5, and can be cut into smaller pieces.

Total of about $75 to make about 50 tablets (Your cost will be less if you need to make fewer tablets.)

7. A pot or saucepan for boiling water
8. An old coffee cup to serve as a double boiler
9. A heating element or stovetop
10. A potholder or cloth

Preparation time: About 10 minutes (to heat up wax)
Level of students: 6th grade to adult
(This activity involves hot wax. Precautions should be taken.)

Sites: Roman Italy and Roman Britain
Dates: 1st Century BCE and 1st Century CE

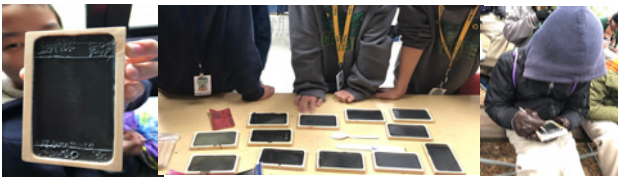
General background/discussion information:

Ancient Romans had many ways of communicating via writing. One common writing surface was papyrus, a type of rough paper made in Egypt and imported to Rome. The production process was time-consuming and expensive, making papyrus a more rarely used writing

surface. The most common writing tool was the wax tablet. It should be noted that Romans did not invent wax tablets, but wax tablets are found widely in Roman sites (the earliest example of a wooden writing tablet was found in the Late Bronze Age [c.1300 BC] shipwreck of Uluburun). In Latin, the language of the ancient Romans, wax tablets were called *TABELLAE* or *TABULAE* (these nouns are plural because usually these items came in pairs). They were made of thin, flat pieces of wood which were hollowed out slightly. This hollow space was then filled with dark colored beeswax. To write on the tablet, an individual would scratch into the soft wax surface with a metal or bone writing stylus. When there was a need to erase, the opposite side of the stylus (usually, a flattened fan shaped tip) was used to scratch out and flatten the previous writing. To reuse the tablet completely, one could melt down the wax in an oven or lay it out in the sun.

Instructions for the activity:

1. Ask students to sand their wooden picture frames. Remove the stand (if there is one) from the back of the frame.
2. Next, students will need to cover the back of their frames with tape to prevent leaking. Parcel packing tape will do the job. Make sure they secure all the seams in the wood that might leak melted wax.
3. While students are working on getting their tablets ready, you can begin heating up the wax. Boil water in a large saucepan. Make sure that there is not too much water. The coffee cup should be able to sit in the boiling water without being submerged completely. Fill the old coffee cup about half full with beeswax pellets. Add two large tablespoons of carbon black. Do not to allow students to come too close. Insert the old coffee cup in boiling water and allow the beeswax to melt, stir carefully.
4. Students should be finishing up their tablets and laying them on a flat service near the heating wax. It's important that the wax tablets are completely flat, or the wax will quickly dry unevenly and create an ineffective wax tablet.
5. Once the wax has melted, using a pot holder, lift the coffee cup by its handle out of the water using a cloth. Immediately pour the wax into the tablets. Pour only a thin layer of wax in each tablet.



6. While the wax is hardening and the tablets are settling (about 10-15 minutes), you may want to introduce your students to Roman a cursive handwriting tutorial video in the Resources below.
7. Once the tablets are dry, the students will use their styli to incise the wax with writing. Before they begin trying it out, have a purpose for them. Examples might be trying to write the newly-learned Roman cursive alphabet or writing on their tablets as if sitting on a bench and using their knees as a desk, as Roman children did. To erase, show them how to use the blunt end of the stylus to scratch out wax. Excess wax from the erasing can be balled up and put into a corner of the tablet for recycling later. If the wax in the tablet seems too cold and brittle, have the students place the tablet between their legs or in their armpits. The natural heat of the body helps to soften the wax.

Learning Outcomes:

- Explore how the ancient Romans wrote notes in an educational, business, or personal settings.
- Use the ancient Roman technology of writing - wax tablet and stylus.
- Experiment with ancient Roman lettering.

Bibliography:

Maurice, Lisa. (2013). The Teacher in Ancient Rome: the Magister and His World. Plymouth, United Kingdom: Lexington Books.

Meyer, E. (2009). Writing Paraphernalia, Tablets, and Muses in Campanian Wall Painting. American Journal of Archaeology,113 (4), 569-597.

Online resources:

Centre for the Study of Ancient Documents and the British Museum.
The Story of the Bloomberg Writing Tablets.
Roman Cursive Lesson 01 Learn to write like an Ancient Roman.

Creating Personalized Anthologies Using Primary Sources

by Victoria Pichugina

Materials: An anthology book based on the subject of the course or a specific theme within the course. Example: Education in Ancient Greece and Rome
-Anthology of the pedagogical heritage of Ancient Greece and Ancient Rome. 2019. Edited by V. Pichugina (Institute for Strategy of Education Development of the Russian Academy of Education, Moscow).
-Greek and Roman Education: A Sourcebook. 2009. Edited by M. Joyal, I. McDougall, J.C. Yardley.
Preparation time: none
Expenses/budget: Any anthology book available to you.
Level of students: Undergraduate to graduate students with background in Greak and Latin languages.
Dates: My course "History of Ancient Education" includes five modules, covering 6th ce. BC to AD 6th ce. (in 9 lessons).

General background/discussion information:
Finding, selecting, juxtaposing primary sources and constructing their hierarchy are difficult tasks even for professional researchers, not to mention those who engage in this pursuit as part of their educational work. Of major assistance for students and for the general audience with an interest in the subject are anthologies and source books. However, their compilers are frequently forced to limit themselves and their readers to "strong texts" (Banta 1993) from well-known "great books." Modern technology allows us to remove these limitations and other restrictions. It allows students to compile personal anthologies of primary sources based on full-text online databases (Loebolus, Thesaurus Linguae Graecae, The Perseus Digital Library, and many others). At the beginning of my "History of Ancient Education" course, I introduce students to my anthology of the pedagogical heritage of Ancient Greece and Ancient Rome book. By the end of the course, students become authors of their own personal electronic anthologies on the history of ancient education. Creating similar

personal anthologies can be applied to different areas, time periods, and corpora of texts as long as there are physical/digital anthologies available.

Instructions for the activity:
1. Students analyze the texts included in the sections of an anthology book. Using full-text online databases, students analyze the frequency and context of the use of certain terms by ancient authors (*disaskalo*s, *sophistēs* etc.). How does the ancient authors use them? In which contexts? Do different authors use the same words for similar metaphors or meanings (example: is education a bitter medicine that a mentor makes their students take? or a weapon that he puts in the hands of the student?).
2. Students begin to select text fragments from full-text online databases that they would like to include in their anthology, which can build on the sections in the assigned anthology books or they can offer their own structure and themes.
3. At the third stage, students group the fragments of texts they have selected and provide each one of them with an annotation or a pedagogical commentary (where they indicate key concepts for a particular author and his metaphor for education, for example). Students save the results of their work in one MS Word document, in a structure resembling a book.

Learning Outcomes:
- Learn to find, select, juxtapose, and annotate ancient primary sources.
- Be able to create personal anthologies based on themes or subjects.

Bibliography:
Banta, Marta. 1993."Why use anthologies? or One small candle alight in a naughty world". *American Literature* 65.2: 330-334.

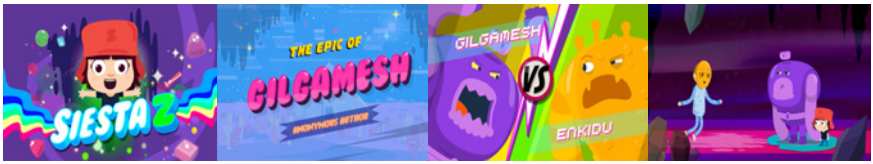
Bezrogov, Vitaliy G., Pichugina, Victoria K. 2017. "Classical antiquity pedagogical heritage in anthologies and source books: education's digital content". *EpSBS*: 173-181.

Depaepe, Marc. 2004. "How should history of education be written? Some reflections about the nature of the discipline from the perspective of the reception of our work". *Studies in Philosophy and Education* 23.5: 333-345.

Lowe, Roy. 2002. "Do we still need history of education: is it central or peripheral?". *History of Education* 31.6: 491-504.

The Epic of Gilgamesh and the Value of Friendship

By Leticia Rovira & Cecilia Molla



Materials: "The Epic of Gilgamesh", episode of Siesta Z, television cartoon series (cartoon makers: El Perro en la Luna SRL - Argentina, in coproduction with Colombia, Brazil, Peru and Ecuador)[33]

White sheet of paper (10 cm. x 10 cm.), one per student.
One white poster paper and color pens or markers.
Preparation time: none
Level of students: Primary education (6-7 years old)

Dates and Sites: Third millennium B.C., Uruk, (Iraq)
Primary sources: The Epic of Gilgamesh

General background/information:
Myths and epic stories often help with answering people's questions about their lives. The legends of Gilgamesh were spread orally since the third millennium B.C. throughout the Near East. What we know as the "standard version" of this epic was found in the libraries of Babylon and Assyria, compiled by the scribe *Sin-leqi-uninni* in first millennium B.C., transcribed into twelve tablets. They described how Gilgamesh left his kingdom, Uruk, to begin a life of adventures. One of them was Gilgamesh's encounter with Enkidu, his antagonist and later, friend. Usually, they are seen as if they incarnated civilization and nature respectively. After the death of Enkidu, Gilgamesh's objective was to seek immortality. He did not find it physically, but in a way, he remains immortal because we know his deeds even today. The Epic of Gilgamesh is an example of ancient Near Eastern literature universally known for this character and his feats.

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[33] We want to thank El perro en la Luna SRL producer (Argentina) for allowing us to reproduce images of the episode.

Instructions for the activity:
1. Briefly tell the student about Gilgamesh, his epic, and the social and cultural context of the historical production (you can use the “General Information” section that we provide here). Watch the video with your students.

2. After watching the video,
A) Discuss and explain the meaning of some words like "protagonist", "friends", "rival", “heroes”, "immortality" students may not know, or any other word that the teacher considers relevant.

B) Answer some questions like these to ensure students understood the story:

- Why is Gilgamesh going on a trip?
- How was his relationship with Enkidu?
- What happened in the battle against the Bull of Heaven?
- Why is Gilgamesh going to seek immortality? Did he find it?

3. After making sure that students understood the story and the vocabulary, ask them to create a drawing on a sheet of paper about some of these values that should have been mentioned in the previous conversation:

- The bravery to undertake the journey,
- The friendship from his relationship with Enkidu,
- The companionship to resolve difficulties from the scene of the joint confrontation with the Bull of Heaven,
- Siesta's empathy towards Gilgamesh when he loses the flower of eternal life,
- Humility versus the arrogance of wanting to be immortal.

4. Close the activity by talking about the celebration of the “Friend's Day” and/or the importance of companionship and empathy in human relationships and how they exist all societies. In fact, we can see them portrayed in the Epic of Gilgamesh, which was written so many thousands of years ago.

5. At the end, gather the drawings and put them together in a large poster with a title about friendship that should be proposed by the students.

Learning Outcomes:
It is intended that children can understand the importance of the aforementioned values, especially friendship, companionship and empathy, from a mythical story. At the same time, they can have some exposure to the societies of the ancient Near East and their literature, understanding them as part of the important universal history and culture.

Bibliography:
Bottéro, J. (Ed.) (1992) *L'Épopée de Gilgameš. Le grand homme qui ne voulait pas mourir*. Paris: Gallimard.
D'Agostino, F. 2007. *Gilgameš. Alla conquista dell'immortalità*. Roma: Piemme.
George, A. (Ed.) 2002. The Epic of Gilgamesh. London: Penguin.
Silva Castillo, J. (Ed.) 1994. *Gilgamesh o la angustia de la muerte*. México: El Colegio de México
Van de Mieroop, M. 2012. "The Mesopotamians and their Past", en: Wiesehöfer, Josef & Krüger, Thomas (eds.) *Periodisierung und Epochenbewusstsein im Alten Testament und in seinem Umfeld*. Stuttgart: Franz Steiner Verlag, pp. 37-56.

Online resources:
- The Epic of Gilgamesh, video lecture by Andrew George, Harvard Museum of the Ancient Near East.
- Activities for high school level by Cecilia Molla.
- Recreation of Uruk site, by Ozzeuk.

Notes or suggestions for educators: This activity is expected to take place at the Primary Public School in Rosario, Argentina, in 2nd grade (children from 6 to 7 years old) to celebrate the "Friend's day" in 20 July 2020. This festivity is deeply rooted in Argentinian culture, being a day informally celebrated throughout the country. We hope that the context of the pandemic caused by COVID-19, widespread in the world, will allow us to carry it out.

What's Up Doc? Diagnosing & Treating Illness in Antiquity

By Chelsea A.M. Gardner & Maggie Beeler

Materials: None
Preparation time: None
Level of students: High school to graduate (Content Warning: may include graphic descriptions of morbidity and mortality).

Dates: Classical Antiquity (Archaic through late Roman), with option to focus on specific periods or physicians. The example below is tailored to Hippocratic medicine (5th century BCE Greece), but this can easily be altered to any time period or region with sufficient historical, literary, or archaeological records: Egyptian, Chinese, Indian, Persian, Islamic, Byzantine, etc.

General background/discussion information: This group classroom activity is appropriate for introductory ancient history/culture/civilization classes. This activity should be undertaken only after students have been exposed to a unit, readings, or lectures on ancient health and medicine, since its success relies on students' background knowledge of the subject. That being said, the brief descriptions of ancient medicine in introductory coursebooks are sufficient for this class – a little knowledge goes a long way! The activity involves students collaboratively brainstorming and describing a medical patient in antiquity and then challenging other groups to diagnose the illness. This activity is stimulating and requires students to consider all aspects of ancient medical thought/practice as well as socio-economic and cultural biases. Competing against other groups to try and stump each other's knowledge is the key to this activity's success!

Instructions for the activity:

<u>For the Student</u>

You are a physician in 5th century Greece. Based on your newly acquired knowledge of Hippocratic medicine, you will present the symptoms and prognosis of a sick patient. Remember: your knowledge of the human body is based on external observation, and the dissection of animals only. You believe in external causes of illness, not religious ones. You believe in

rigorous documentation of afflictions and outcomes, but healing itself is not your specialty.

1) Choose a common illness that may have afflicted people in antiquity. Note: something acute rather than chronic, and physical rather than mental will be easier to describe and diagnose. Do not write this down – based on your description, another group will have to guess what the illness is!
2) Describe your patient: age, sex, socio-economic class, occupation, etc.
3) Describe your patient's symptoms. Remember, a symptom is a "physical or mental feature which is regarded as indicating a condition of disease, particularly such a feature that is apparent to the patient." What is the patient complaining of? What might you notice as a doctor that the patient does not? What might you (with your limited anatomical knowledge) think is a symptom but actually isn't?
4) What do you believe was the cause of the illness? What are your recommendations for treatment?
5) Explain the duration and outcome – how long did these symptoms last? Did they change? Did your patient ultimately recover, become temporarily or permanently disabled, or even die?

For the Instructor – See Appendix for Handout and Example Activity

Provide one handout per group with the instructions above, and plenty of space to write out their answers to the following: 1) Patient Description; 2) Patient Symptoms; 3) Cause of Illness/Recommendations for Treatment; and 4) Duration & Outcome. Leave a space at the bottom for the next group to guess the diagnosis ("Your Patient Had: _____!"). After each group has filled in the required information, they should exchange their sheets with another group. Allow sufficient time for each group to debate the diagnosis, and have each group announce both their guesses and their reasoning. You decide whether the winners are the students who guessed correctly or the ones who successfully stumped their peers!

Learning Outcomes:

- To consider the difficulties of diagnosing various mental and physical illness, both chronic and acute, in the ancient world

- To experience ancient physicians' understanding (or lack thereof) of health, anatomy, epidemiology, genetics, morbidity, and mortality
- To question the socio-cultural factors involved in ancient medical practice in antiquity
- To build practical skills, including critical thinking, role-playing, and teamwork

Bibliography:

Horstmanshoff, H. F., Stol, M., & Van Tilburg, C. R. (Eds.). (2004). Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine (Vol. 27). Brill.

Irby, G. L. (Ed.). (2016). A Companion to Science, Technology, and Medicine in Ancient Greece and Rome (Vol. 144). John Wiley & Sons.

Longrigg, J. (2013). Greek Medicine: from the Heroic to the Hellenistic age. A Source Book. Routledge.

Nutton, V. (2012). Ancient Medicine. Routledge.

Van der Eijk, P. J., Horstmanshoff, H. F. J., & Schrijvers, P. H. (1995). Ancient Medicine in its Socio-Cultural Context. Ed. Ph. J. Amsterdam.

Online resources:

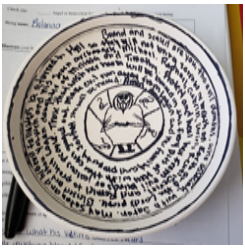
Antiqua Medica.

Ancient History Encyclopedia.

Patient Description	Female, 25, Married, Pregnant with 3rd child, Aristocratic family
Patient Symptoms	Excess of nasal mucus, sore throat and difficulty swallowing, sneezing, lack of energy, sore feet, excessive consumption of figs, pain in the lower back, persistent cough. No fever, and pregnancy is progressing as expected.
Cause & Treatment	The warmer weather brings an increase of flowers and plants and is causing a disruption to the woman's environment. Wine has been prescribed, and I recommend remaining indoors until the threshing season has subsided.
Duration & Outcome	Despite the persistent heat and increase in crops, the woman's cough, sore throat, mucus, and sneezing surprisingly subsided in a few days. Her back and foot pain persist.
DIAGNOSIS	Common Cold: the pregnancy symptoms and seasonal causes were the (tricky) diversion!

Demon Traps! Making Late Antique Incantation Bowls

By Helen Dixon



Materials:
-One bowl for each student: Ceramic Is best to Imitate the original artifact (search for "bisque" pottery, which Is fired but unpainted and unglazed; you can try to coordinate with a fine arts school or studio for these), but paper or plastic disposable bowls can also be used as a cost-effective alternative.
-One fine-tipped permanent marker for each student.
Preparation time: none (you may wish to assign parts of this for homework before class, see below).
Expenses/budget:
Bowls: $0.10 - $8.00 per student, depending on material and source; markers: approx. $5.00 / 12-pack.
Level of students: High school to advanced undergraduate.

Sites: Iraq (Mesopotamia, e.g., Nippur, Seleucia), Iran, and Syria
Dates: Late Antique or Byzantine period in Mesopotamia and the Levant, ca. 450 - 800 CE

General background/information: Demon traps (also “magic bowls,” or “incantation bowls”) represent a form of protective magic practiced in what is now Iraq, Syria, and Iran, from the 5th-8th centuries CE. Around 2000 bowls come from legal excavations, but many more have been illegally excavated and purchased by collectors (private individuals or museums). The bowls seem to have been created and commissioned by polytheistic, Jewish, Christian, Mandaean, Manichaean, and Zoroastrian adherents. They are especially valuable for the study of Rabbinic Judaism,

as they represent some of the only sources outside the Bavli (Babylonian Talmud) that attest to Babylonian Jewish practices and beliefs.

The bowls are typically found buried face-down (like a dome) and seem meant to capture demons and keep them trapped under the bowl. They appear under doorways (thresholds), buried in courtyards, in the corner of homes under the floor, and in cemeteries. Most are inscribed in Jewish Babylonian Aramaic, Mandaic, or Syriac, but we have some in Arabic and Persian as well. Some are inscribed in a pseudo-script, perhaps sold as a magical tongue or by and to illiterate individuals.

Instructions for the activity: The first 1-3 steps can be assigned ahead of class as homework or preparatory work if preferred.

1. Have each student individually design a demon or personified evil concept that they wish they could be protected from. Students might think about things like nightmares, test anxiety, or other specific problems they face, or they can get more abstract and creative to create a character for this assignment. Their demon should be given a name that is symbolic or meaningful to the student.
2. Next, have the students think about words, phrases, symbols, beings, or texts that make them feel protected and safe. Students might generate their own angels or benevolent personified concepts, or can call on superheroes, fictional characters, family members, or animals to protect them. Song lyrics, lines from sacred texts or prayers, or other phrases can also lend emotional weight to this exercise.
3. Students should then work alone or in groups to carefully study a handful of ancient magic bowls and their translations. You can have students work in pairs with a catalog or volume, photocopy 5-15 examples for the whole class, or have them sift through a database (see "online resources" below).
4. As a class (or in small groups), have them generate some "rules" that many magic bowls seem to follow. Their observations may include: the bowls often picture the demon at the bottom, but show the demon tied or shackled down; the text often runs from the inside to the outside of the bowl's interior; they often quote biblical and other sacred texts; some of them include nonsense or illegible writing; they often include multiple magical names (like Yahweh or angel names) that can be

repeated, appear on the rim of the bowl, or be emphasized in some way; etc.

5. Finally, have each student design their own demon trap, incorporating their observations about the ancient magic bowls with their personal fears and protective elements from steps 1-2. They can submit a photograph of the bowl along with a metacognitive reflection, allowing them to keep the bowl and place it (upside-down of course!) near a window or door, to see how well it works.

Learning Outcomes:

- To explore the roles intermediary celestial beings (like demons and angels) played in the lives of people in multilingual Late Antique Levantine and Mesopotamian contexts.
- To more closely examine how text (real or pseudo-text), object, and image work together in ancient religious or magical rites.
- To experiment with intertextuality, magic words and names, and the "weirdness" of magical language in the student's own vernacular and social context.

Bibliography:

Gino, Francesca and Michael Norton. 2013. "Why Rituals Work," *Scientific American*.

Naveh, Joseph and Shaul Shaked. 1998. *Amulets and Magic Bowls: Aramaic Incantations of Late Antiquity*, Third edition. Skokie, Illinois: Varda Books. (As well as other volumes by Naveh & Shaked)

Moriggi, Marco. 2014. *A Corpus of Syriac Incantation Bowls, Syriac Magical Texts from Late-Antique Mesopotamia*. Leiden: Brill.

Online resources:

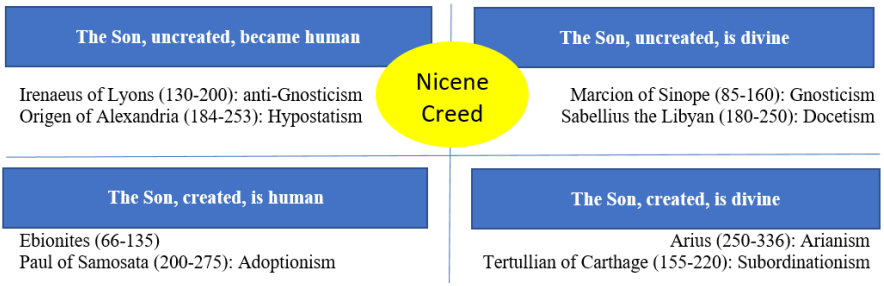
-Virtual Magic Bowl Archive.
-Protective Magic: Babylonian Demon Bowls.
-Online exhibit of magic bowls from the Kelsey Museum.
-Naming Demons: The Aramaic Incantation Bowls and Gittin.
-Make your own incantation bowl (for younger audiences) from the Penn Museum.

Council of Nicaea: A Lesson on Christology

by Nicholas Cross

Materials: Stevenson, James, ed. 2013. A New Eusebius: Documents Illustrating the History of the Church to AD 337. Grand Rapids, MI: Baker Academic.
Preparation time: 30 minutes for copying or scanning documents
Expenses/budget: none
Level of students: High school to undergraduate

Dates: AD 100 – 451
Sites: Nicaea (modern İznik, Turkey); map with Christian centers of the Roman Empire



General background/discussion information: The subject of Christ's nature was of great interest to early Church thinkers and remains controversial in Christianity today. Schools of thought were (and are) divided over whether Christ was divine or human or something in between. Other disputes pertain to whether Christ as the Son of God had an equal or subordinate relationship to God the Father. The Council of Nicaea in 325 (and the Council of Constantinople in 381) decided that Christ was divine, being of the same essence as (*homoousios*) the Father, while it was not until the Council of Chalcedon in 451 that theologians in the west (and some in the east) agreed that Christ was divine and human at the same time. Through this activity, students will appreciate how contentious was the development of early Church beliefs on the nature of Christ.

Instructions for the activity:

In a previous class

- Divide the class into groups of five to nine students, assigning each student a historical character from the chart above, and one student as Constantine. Instruct students to read, for homework, the primary source documents for their character in Stevenson: Ebionites (72), Marcion (73-81), Irenaeus (99-102), Sabellius (135-136), Tertullian (144, 152), Origen (180-184), Paul of Samosata (238-240), Constantine (258-260, 279), Arius (290-297). Students should also research outside materials on their character's views on Christology. By doing so, students will be prepared to role play their characters in a mock ecumenical council in the next class.

In the class for the activity

- 5-10 minutes (Introduction). Begin class by showing a map of the ancient Mediterranean with major Christian centers and emphasize the divided condition of the Roman Empire and Christianity in the early fourth century. Ask the Constantine student to share the story of Constantine's "conversion" to Christianity in 310.

- 5-10 minutes (Review). Instruct students to review their notes and prepare their cases for the "council." If there is more than one group (council), all the students playing the same character can review their notes together. Inform those who will play Constantine that their role as council chairperson is to make opening remarks and take notes of the proceedings.

- 20-25 minutes (Council). Re-arrange students into groups ("councils") so that each character is represented by only one student. Have students make a paper place card with their historical character's name and school of Christology (see chart). The Constantine chairperson should instruct council members to share their views in order, while others can interrupt to pose objections or ask questions. While members discuss their views, the Constantine chairperson will take notes and afterwards attempt to bring the council members to agree

on a negotiated statement ("We believe that . . .") on the nature of Christ.

- 15-20 minutes (Debrief). Ask each Constantine chairperson to share their council's statement with the entire class, and elicit responses to it from the other councils. After hearing each statement, read the Nicene Creed (Stevenson no. 301) with the class. Compare the class's statements to the Nicene Creed, and discuss which historical characters would agree or disagree with each clause of the Creed.

Learning Outcomes:

- To experience an ecumenical council.
- To learn the various schools of thought on Christology.
- To become familiar with the primary sources for the early Church period.
- To learn teamwork, debate, and public speaking.

Bibliography:

Anatolios, K. 2011. *Retrieving Nicaea: The Development and Meaning of Trinitarian Doctrine*. Grand Rapids: Baker Academic.

Ayers, L. 2006. *Nicaea and Its Legacy*. New York: Oxford University Press.

Barnes, T. D. 1981. *Constantine and Eusebius*. Cambridge, MA: Harvard University.

Young, Frances M. and Andrew Teal. 2010. *From Nicaea to Chalcedon: A Guide to the Literature and Its Background*. Grand Rapids, MI: Baker Academic.

Online resources:

Early Church Writings.

Early Church Documents, Councils of the Church.

Council of Nicaea, Khan Academy.

Notes or suggestions for instructors:

In order for this activity to be effective, it is imperative that students become familiar with their characters before class.

Dolls and Archaeological Interpretation

By Tine Rassalle

Materials: Dolls in different sizes, shapes, colors, sexes, etc.
Preparation time: none
Expenses/budget: None. If you don't have dolls yourself, ask around: there is always someone who has some laying around!
Level of students: High school to graduate

Dates: From the Paleolithic Period to the modern age: this exercise can be done referring to any archaeological site or period.

General background/discussion information:
"Seeing" is a complex process. When we look at objects, especially ancient ones, we believe that we are naturally and objectively seeing what is in front of us. Of course, what we see, in what detail we see it, what we notice, and what we highlight are all culturally contingent. When looking at the past, we are influenced by our modern social, cultural, and personal experiences. This exercise will help to communicate this to the students in a very practical way.

Instructions for the activity:

- Divide the students up into little groups (between 2-4 people per group), with each group receiving one doll.
- Have students describe the object: what do they see? Make sure the allotted time is long enough so that the students move away from only writing down the sizes/colors, to interpretations like gender and possible functions of the object (but don't guide them).
- Have them report back to the class on their observations.

- Point out that their descriptions are not objective: why did they think their doll was female, for example? Does long hair mean the same in every society? Has pink always been a feminine color?
- Have them repeat the exercise, but now tell them to be truly objective. For example, nobody has probably measured or weighted the doll!
- Have them report back to class.
- Discuss observations they might still not have noted, for example, is the doll abled/disabled, blemished/idealized? Is there wear and tear on the object and what could have caused it? What parts are given in detail and which ones are schematized? Why, what is the effect? In most cases, the kind of dolls you are using will guide these conversations and dolls can be specifically chosen for the kind of discussions you would like to have.
- Finally, you can ask the students to evaluate their original descriptions and reflect on
    - What elements of their "seeing" were culturally constructed.
    - Did the way they initially "see" their object comport with the other groups in the class? Why/ why not? (This also gets you at shared cultural conceptions and individual perception).
    - What can we do to "see" more completely and why doesn't that happen most of the time (here you can talk about biases, embodiment, habitus, cultural symbols, etc. We are "seeing" the way we are programmed to "see" by negotiating the "rules of the game" without being fully conscious that the game exists).
    - What do the answers to these questions suggest about whether and to what extent we are able to understand objects/images from an ancient, non-western, non-modern context?

Additional or alternative instructions:

- Pair up students but only give the doll to one person per group. Have the student with the doll describe the object to the other student who cannot see the doll. Ask the student who can't see the doll to draw it based on the descriptions given. This way, students really need to stick to the physical features and "objective facts" of the object. Then, compare the drawing to the real-life doll: what features did they miss?

What did they get wrong? What sort of descriptions would have helped to be able to draw an accurate reflection of the object?

- Give students a picture of an actual ancient doll/figurine/statue and have them write up a reflection paper/online forum post after class, describing the object in a similar way as how they learned it through this exercise. What can they objectively say about this human figure? What features are least/most pronounced? Why was this doll/figurine/statue portrayed in this particular way? What could have been the function of this object and why? In this exercise, the students are the historians/archaeologists trying to analyze and understand the past.

Learning Outcomes:

- To think about what it means to truly "see" an object.
- To realize how culture and personal experiences can (and will!) influence our understanding and interpretation of ancient artifacts.
- To question assumptions about the past and better understand the tasks of historians and archaeologists.

Bibliography:

Burritt, Amanda Maree. 2018. "Pedagogies of the Object: Artifact, Context and Purpose." *Journal of Museum Education* 43.3: 228-235.

Jenns, Heike and Viola Hofmann (eds.). 2020. *Fashion and Materiality: Cultural Practices in Global Contexts.* Bloomsbury.

Robb, John E. 1998. "The Archaeology of Symbols." *Annual Review of Anthropology* 27: 329–346.

Turk, Diana B. 2006. "What a Hot Comb Can Tell Us about History: Material Culture and the Classroom." *OAH Magazine of History* 20.1: 50-53.

Online resources:

Close Looking: Art in the Classroom.

History of Dolls.

Images of figurines. Brooklyn Museum, exhibition The Fertile Goddess.

What Objects Mean. An Introduction to Material Culture.

A similar activity for younger audiences.

Figurine Out Ancient Identities

By Anastasia Amrhein

Terracotta Figurines, Left to Right: from Syria, ca. 2350-2150 BCE (The Metropolitan Museum of Art, Rogers Fund, 59.125); from Nippur, Mesopotamia, ca. 2350-2150 BCE (The Metropolitan Museum of Art, Rogers Fund, 59.41.19); from Syria, Anatolia, or Mesopotamia, ca. 1700 BCE (Brooklyn Museum, Gift of Dr. Florence Day, 51.117)

Materials: paper, scissors, envelopes, photocopier or scanner and printer
Preparation time: ~30 minutes
Expenses: photocopying/printing expenses

Level of Students: High school and beyond

Sites and dates: choice of any site/date where figurines have been excavated and published in catalogue form (see suggested sources below)

General Background/Information:
Clay figurines are some of the most abundant artifacts that are found at nearly all archaeological sites. For this reason, figurines are useful in reconstructing aspects of ancient identities and social lives. However, most figurine assemblages are not accompanied by a textual record that might clearly explain these objects' meaning and function. Moreover, most figurines are found in secondary deposits such as garbage dumps, making it difficult to recover their original context of use. Thus, archaeologists and art historians have created typologies based on style and iconography to interpret figurines. Although a useful tool, such typologies tend to be heavily influenced by the interpreters' own cultural contexts and their

understanding of sex and gender distinctions and their associated social roles. This activity invites students to look at ancient figurines with fresh eyes and to explore different categorization schemes. The aim is to allow the past to speak for itself without projecting our own assumptions onto ancient identities.

Instructions for the activity:
Photocopy the plates with figurine photographs from a book focusing on a specific site; cut out the individual figurines and mix them up in an envelope. One such set of photocopies will work for a small group of 5 or so students. If the class is larger, another set of photocopied images is necessary for each group of ~5 students.
Ask students to lay out the figurine images and work together in small groups to categorize them in a way that is intuitive yet does not privilege their own cultural assumptions; afterwards, engage the entire class in a discussion of their approaches and challenges. Questions to consider:

- What assumptions are you making about ancient identities and social structures? How might ancient categories of sex, gender, age, social role, etc. differ from our own?
- What is the difference between sex and gender? In what ways does society regulate or construct both?
- Are the figures dressed or nude?
- How do you know if a certain figurine is a man or woman? What about non-binary sexes or genders?
- Are all of the figures of the same age? How can you tell?
- Are all of the figures of the same social status? How can you tell?
- Do all of the figurines represent humans? Do any have supernatural or animal features? What do you think this means?
- Is a figure holding an infant necessary the infant's mother? Is it a woman?
- What else can you discern about these figures? Look at the details of their dress and hairstyles; their postures and hand gestures; are they holding anything? Are specific parts of the body emphasized? What might these differences mean?
- How do you think the figurines relate to one another? Are all members of a social group represented or are certain types of people given

prominence? Why might this be? How do you think people related to these figurines in antiquity?
- Are all of the figurines fully preserved or are some broken? What might this mean?
- Is there a single best way to categorize the figurines?

Learning outcomes:
- To consider why ancient people made figurines and how they relate to sex and gender, and other social categories,
- To think critically about the categorization choices made by archaeologists and how those choices color our view of the past
- To experience the interpretative work done by archaeologists and its challenges,
- To think critically about the construction of sex and gender in the present and in antiquity and how the two relate,
- To become aware of your own cultural views and assumptions,
- To practice close-looking skills.

Bibliography:
Insoll, Timothy (ed). *The Oxford Handbook of Prehistoric Figurines*. Oxford: Oxford University Press, 2017.

Joyce, Rosemary A. *Ancient Bodies, Ancient Lives: Sex, Gender, and Archaeology*. New York: Thames & Hudson, 2008.

Lesure, Richard G. *Interpreting Ancient Figurines: Context, Comparison, and Prehistoric Art*. Cambridge: Cambridge University Press, 2014.

Moorey, P. R. S., *Ancient Near Eastern Terracottas*. Oxford: Ashmolean Museum, 2005.

Catalog example:
Klengel-Brandt, Evelyn. *Die Terrakotten aus Assur im Vorderasiatischen Museum Berlin*. Berlin: Deutscher Verlag der Wissenschaften, 1978.

Suggested Sources to search for figurine images:
Penn Museum Collections search, Ashmolean Museum search, British Museum search, Ur-online database.

Build Your Own Exhibition: *Women at the Dawn of History*

By Elizabeth Knott, Agnete W. Lassen, and Klaus Wagensonner

Mount maker Maishe Dickman installs the exhibition *Women at the Dawn of History* in the hall outside the Yale Babylonian Collection at Sterling Memorial Library.

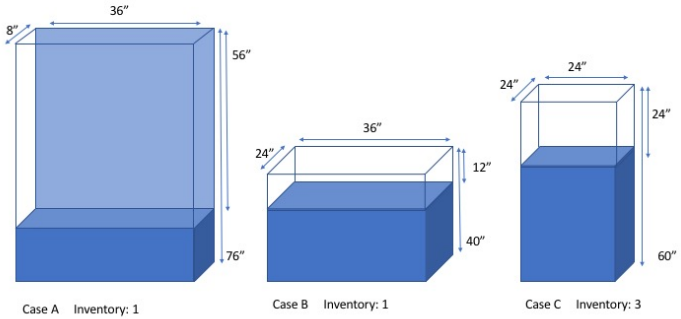
Materials: Access to online materials and resources; handouts (see Appendix)
Preparation time: Less than 10 minutes for printing and/or photocopying
Expenses/budget: Color printing costs
Level of students: High school and undergraduate classes

General background/information:
Many of the records that survive from Mesopotamia—the area that today includes Iraq, Iran, Syria, and Turkey, around 3,000–323 BCE—come from the hands of men, and primarily are about powerful men. Women, however, also played an essential role in ancient societies. They were important members of households and individuals with careers in businesses. Literacy may have been limited in the ancient world, but it is clear that some women knew how to write. The first recorded author in history is, in fact, a female priestess by the name Enheduanna (ca. 2300 BCE). In addition to written documents, women are represented in ancient artworks in a variety of ways. These artworks depict regular women, and they also show the power of female goddesses and demons. Such images and texts speak to particular ideals about feminine beauty, female identity, and the role of women in society.

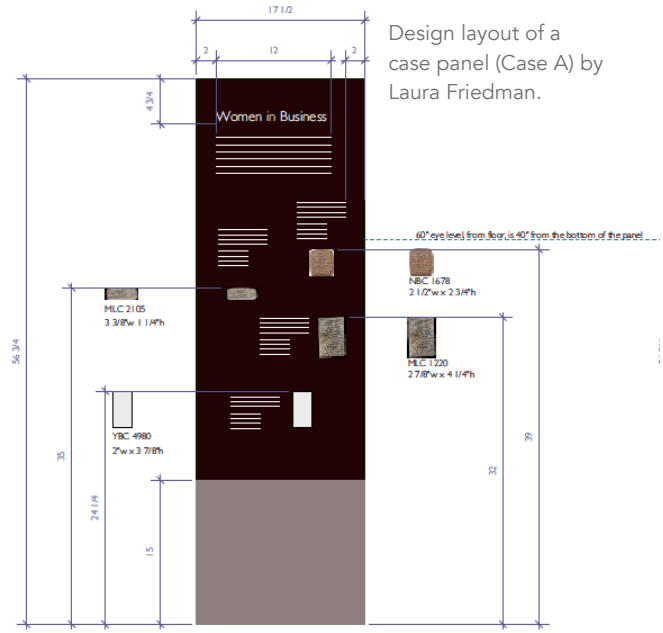
Instructions for the activity:
For individual students who then work in groups of three:

• *Individual assignment*: Using the provided checklist and assigned readings, select four objects that you think work well together as an exhibition. Perhaps the objects all relate to a particular topic, or demonstrate the importance of a particular idea—allowing audiences to understand life in Mesopotamia. Alternatively, they may provide different perspectives on the same topic or idea—showing the existence of multiple ways of understanding the world in antiquity. Write a paragraph explaining your topic. For each object, write a label that includes a title, a date and possible site of origin, dimensions of the object, and 1–2 sentences about what makes the object remarkable. Additional information about each object is available in the online catalogue *Women at the Dawn of History* (see below). Make sure to explain any terms that may not be familiar to your audience. (Some keywords have already been noted in the handout.)

• *Group assignment*: In groups of three, work to address the challenges that can occur when bringing an exhibition from idea to reality. Each group needs to come up with a way to simultaneously show all three exhibition proposals. First, duplicate objects have to be replaced with other objects from the checklist, while maintaining the theme of each individual exhibit. Curators often face such last-minute challenges, when loan requests fall through or objects are too fragile to travel. Second, the three exhibits all have to fit into the available cases shown here. One exhibit can use more than one case, but one case cannot have objects from two exhibits.



Installing an exhibition often requires the use and modification of pre-designed cases. Curators work with teams of experts including designers and mold-makers to come up with a presentation of objects that work in a given space. For the Yale Babylonian Collection's *Women at the Dawn of History* exhibition, for example, tall cases with back mounts were used.



Design layout of a case panel (Case A) by Laura Friedman.

These cases have a glass front and a long vertical space where objects and text can be displayed. Such cases need to be set against a wall. Other cases only have a glass top and objects have to be arranged on a horizontal space, but the cases can be set anywhere in a room. These cases are often used to hold objects and their labels—accompanying longer descriptions are often put on a wall nearby. Different types of cases often serve different purposes. A case like Case B or C allows visitors to see all sides of an object, while a case with a shallow depth like Case A allow visitors to get closer to objects. The various considerations (height of objects in relationship to the height of viewers, organization of text and objects) can be seen in the drawing above.

Class review: Groups present their exhibits, including (optional) ideas for color schemes. As a class, discuss the challenges involved in creating an exhibition and what the different exhibits and objects can tell us about women in Mesopotamia. Compare the different proposals with the virtual

exhibition *Women at the Dawn of History* (see link below). How are objects grouped and displayed in this exhibition? What are the different topics that come up in this exhibition? Are they similar to or different from those proposed by the groups?

Learning Outcomes:
• Learn about women in ancient Mesopotamia and the variety of expressions seen in art and texts
• Critically engage with an exhibition
• Practice creative problem-solving skills that are applicable to real world jobs and challenges

Bibliography:
Lassen, Agnete W. and Klaus Wagensonner, eds. *Women at the Dawn of History*. New Haven: Yale Babylonian Collection, 2020.
Bahrani, Zainab. *Women of Babylon: Gender and Representation in Mesopotamia*. Hoboken, NJ: Routledge, 2001.
Mesopotamian Women. Cambridge Core.

Online resources:
Women at the Dawn of History. Virtual Exhibition.

Notes or suggestions for instructors:
• Readings could be assigned from any of the listed bibliography.
• It may be useful to discuss the checklist of objects first as a class. Information on all of these objects appears in the catalogue and are part of the virtual exhibition. These objects provide additional opportunities to talk about cuneiform writing, cylinder seals, figurines, and more.
• The second half of *Women at the Dawn of History* provides a catalogue of objects that students should use to write their labels and object descriptions. The handout in the Appendix lists the keywords that student will need to be able to define and explain to audiences. These terms are not meant to define particular groupings of objects.
• Similar exercises could be developed with other online exhibitions, or by asking students to search collections online.

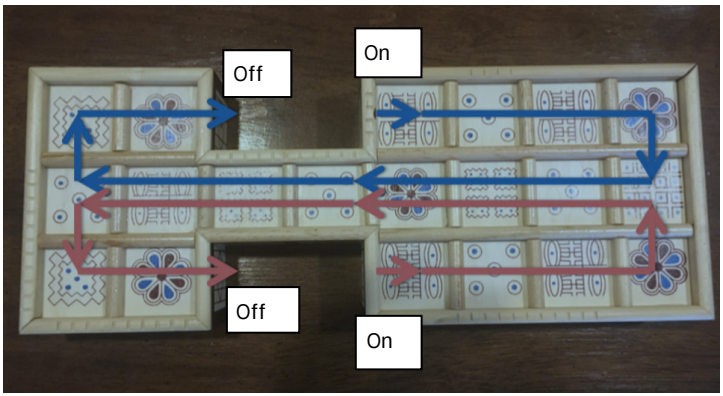
How and why was the Royal Game of Ur played?

By Shane M. Thompson

Materials: Paper, pens, playing pieces (6 each of 2 different colors), 4 sticks with one side of each marked OR tetrahedron dice with 2 of the tops marked white (or any color) and one left uncolored
Preparation time: None
Expenses: $0 (unless you want to buy a replica board). Replica board may be purchased here. Printable boards may be found here.
Level of students: Any

Sites: Crete, Cyprus, Egypt, India, Iraq, Iran, Lebanon, Sri Lanka, Syria
Dates: c. 2500 BCE – 1950 CE

General Background/Discussion Information: The Royal Game of Ur was found in one of the so-called "Royal Burials" at the site of Ur in southern Mesopotamia (modern day Iraq) and dates to the late 3rd millennium BCE. The context of the game is thought to represent a facet of religious life due to its internment in these tombs. Its long lifespan as a game also indicates that it functioned as a leisure activity. The game was likely played in bars and homes and contained a betting aspect. Scholars cannot fully reconstruct the rules, especially for all time periods and locations. The cuneiform tablet containing rules for the game dates to 177 BCE, almost 2,000 years after the gameboard at Ur was interred with the deceased.



Instructions for the activity:

- Pair off with a gaming buddy.
- Draw, print, or setup the game board.
- Do not forget to draw the symbols on the board as seen above.
- Using the board and the pieces, try to come up with your own rules for the game and test them out by playing.
- Watch the video on the scholarly reconstruction of game rules. The image above should also help. (On: start, Off: get off the board/finish)
- Take special note of how to use the dice/sticks and the rosette spaces.
- Play the game based on the scholarly reconstruction and try to beat your opponent!

Learning Outcomes:

- Discuss how a board game can connect to religion.
- Discuss the questions surrounding the reconstruction of ancient history, especially material culture. Assure students that their own reconstruction of the game could easily be correct.
- People in the past played games in social and leisure settings just like we do today.

Bibliography:

Gansell, Amy Rebecca., and Irene Winter. *Treasures from the Royal Tombs of Ur*. Publications Dept., Harvard University Art Museums, 2002.

George, Andrew. *The Epic of Gilgamesh*. Penguin, 2000. Tablet XII, pp. 175-194.

Reade, Julian. "The Royal Tombs of Ur." *Art of the First Cities: the Third Millennium B.C. from the Mediterranean to the Indus*, edited by Joan Aruz and Ronald Wallenfels, Metropolitan Museum of Art, 2003, pp. 93–134.

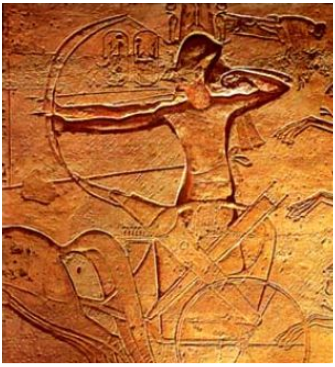
Online Resources:

Object Description, British Museum.
Deciphering the world's oldest rule book Irving Finkel, Curator's Corner.
Standard of Ur and other objects from the Royal Graves, Khan Academy.

Reenacting the Battle of Kadesh

By Stephanie Selover

Materials: Colored construction paper, pack of wooden skewers, ball of string, markers and colored pencils, scissors, tape, glue sticks, print out of hand-outs
Expenses: Cost of the craft material
Preparation time: Three class sessions: One class lecture on the Battle of Kadesh; one class for student weapons and armor preparation; one class for the battle reenactment
Level of students: High school, undergraduate



Relief of Ramses II at the Battle of Kadesh, Abu Simbel Temple.

Map of Late Bronze Age Egypt and Hittite Empires. (CC BY-SA 3.0). Wikipedia

Sites and date: Kadesh, Syria; Abu Simbel and Temple of Luxor (Egypt); Hattuša (Turkey), 1274 BCE

General Background/discussion Information:
The Battle of Kadesh (sometimes spelled Qadesh) was a decisive battle between New Kingdom Egypt and the Hittites of Anatolia for control over Syria. This is the first battle from history where detailed battle plans and reported numbers of combatants on both sides are known. We have accounts of the battle from both the Hittite and Egyptian sources, but problematically, both sides claim victory! After the battle was over, the two sides eventually made lasting peace, leading to one of the oldest known peace treaties in the world, a modern copy of which is kept at the United Nations building in New York as an example of ancient diplomacy.

Relief from Abu Simbel depicting the city of Kadesh.

Instruction for the Activity:

- Split your class into two groups, the Egyptians and the Hittites.
- Within each group, have every student draw their role from a hat, including: Historian/Narrator, King (Egypt: King Ramses II, Hittite: King Muwatalli); Head General (Egypt: Head General, Hittite: Hattušili), Infantry, Chariots, Archers (make as many roles as necessary of these last three).
- Have each student choose a name for their character, from the list (see Appendix). Using examples from the readings, then make each student construct their own armor and weapons using the craft material and their imagination.
- Each student then will write the story of their character and their role in the battle of Kadesh. How are you armed? How are you dressed? What was your role in the battle? Do you survive? What did you leave behind on the battlefield?
- As a group, each side plans out a version of the Battle of Kadesh from their point of view.
- Finally, stage the battle! In an open area, perform the battle twice. Once with the Egyptians narrating the events, and once with the

Hittites narrating the events. As the battle progresses, leave any fallen combatants, weapons or armor on the floor to make a "battleground"
- Are there any major differences in how the battlegrounds look between the two versions of the battle? Could archaeologists learn who won the battle by looking at the remnants of the battle? Why or why not?

Learning Outcomes:
- To learn about ancient armor, weapons and battle tactics.
- To learn about the cultural differences between the Hittites and the Egyptians.
- To consider the differences between historical and archaeological accounts of battles.
- To learn about battlefield archaeology and its limitation.

Bibliography:
- For information on the Battle of Kadesh and nice illustrations: "To Kadesh and After" in *War in Ancient Egypt: The New Kingdom*, Anthony J. Spalinger, Wiley, 2005, pages 209-234.
- Translations of the Egyptian texts: *The Kadesh Inscriptions of Ramesses II*, Alan Gardiner, 1960, Oxford University Press
- Egyptian Weapons and Warfare: "Weapons and Armor" *in Fighting for the Kind and Gods: A Survey of Warfare in the Ancient Near East*, Charlie Trimm, Society of Biblical Literature, 2017, pages 513-220.
- Hittite Weapons and Warfare: "Hittite Military and Warfare," Jürgen Lorenz and Ingo Schrakamp, in *Insights into Hittite History and Archaeology*, Hermann Genz and Dirk Paul Meikle, eds., Peeters, Paris, 2011, pages 125-151.

Online Resources:
- The Battle of Kadesh and the First peace Treaty.
- The Hittite Empire and the Battle of Kadesh.
- For maps of the battle tactics see Warfare History Network.
- At Brown University, the battle is reenacted on a larger scale. Watch here.
- For weapon design, see these handouts.

Imperialism and Rebellion on the Roman Frontier:
Boudicca's Revolt

Gabriel Moss and Peter Raleigh

Materials: Open-Access Resources (available for download here): Asset Cards; Character Sheets (4); Declaration Form; Historical Overview; Instructions.
Preparation Time: 90 min
Expenses: None
Level of Students: This game has been successfully play-tested with students in both introductory and advanced college-level Roman history courses. The game is designed to be played in a 50-minute class period.

Dates: 1st Century CE
Primary Sources: Dio Cassius 62.1-12; Tacitus Annals 14.29-39. (Content warning: Violence, Sexual Violence)

General Background:
The revolt of the Iceni under Queen Boudicca in 60 CE was among the bloodiest rebellions of the early Roman Empire. This exercise asks students to imagine and simulate the negotiations and political processes that led some British kingdoms to rise in armed opposition to Rome, while others fought alongside their occupiers. In 43 CE, Rome established the new province of Britannia and subsequently governed it through a mixture of violence and diplomacy, gradually extending its control over the island's complex network of tribal kingdoms. Boudicca's revolt in 60 CE was the only event that seriously jeopardized Roman rule in Britain. In the early days of the revolt, rebels sacked Camulodunum (modern Colchester) and Londinium (modern London), reportedly killing 80,000 of the Romans and their allies. Such success, however, was short-lived. When the Roman governor Gaius Suetonius Paulinus returned with substantial reinforcements, Boudicca and her army were defeated in battle, and the rebellion was brought to an end.

Instructions: Full and detailed instructions are available for download here.

1. In Imperialism and Rebellion on the Roman Frontier, four teams (representing semi-independent British client kingdoms) compete to achieve their own political ends during a historical crisis, by forming coalitions with other kingdoms in order to pool limited resources. At the beginning of the game, all teams are faced with the choice to appease the Roman governor of Britain (either by sacrificing both land and independence or by paying heavy tribute) or to defeat him in battle—in order to achieve either outcome, teams will need to form alliances to gather enough collective resources (represented by Asset Cards) to win a war or to negotiate peace. Yet each team also has its own, often mutually exclusive, political goals (represented by Victory Points)—even as the British kingdoms must cooperate to survive, they simultaneously jockey for political primacy as independent rulers or favored Roman clients.
2. Divide students into four teams and assign the 'Instructions' and 'Historical Overview' as required reading prior to class. The gameplay itself comprises alternating rounds of strategizing within individual teams and negotiating between them. In the former, team members privately discuss their objectives and strategies for achieving these goals. In the latter, teams send out representatives to exchange information and to strike bargains with other kingdoms; during the negotiation rounds, teams may exchange their Asset Cards (see Materials) that represent their kingdom's military forces, agricultural land, and movable wealth.
3. In the final negotiation round, teams may join together in broader coalitions, and must declare their intention to placate the Romans with land or with tribute, or to launch a rebellion—they must then surrender the requisite number of Asset Cards to the governor (played by the instructor). Coalitions (or unallied teams) that do not have sufficient Asset Cards face certain defeat by the Romans. When the scenario is complete, the surviving teams calculate their Victory Points (as described on their respective Character Sheet handouts), and the instructor narrates a brief epilogue, summarizing the successes and failures of the different alliances and teams, and describing the likely political landscape of Britain that results from the events of the simulation. Instructors should also lead discussion on the ways in which 'gamifying' this scenario necessarily simplifies historical reality, and on how and why the choices students made during the game differ from those of historical actors.

Learning Outcomes:
1. In addition to developing skills related to strategy, teamwork, and negotiation, students should leave this exercise with a more nuanced appreciation of the political dynamics of imperialism on the Roman frontiers. The game drives home the point that the so-called "barbarians" at the edges of empire were not a united monolith, and that the success and duration of Rome's imperial project depended largely on its ability to exploit pre-existing political divisions. Furthermore, while the looming threat of warfare forms the background crisis for the simulation, the rules of the game also stress the cooperative aspects of provincial government: the fact that collaboration was not only a way for locals to avoid death at Roman hands, but a potentially profitable and desirable political tactic in its own right.
2. Imperialism and Rebellion on the Roman Frontiers stresses the fundamental complexity of historical events. Students should leave with the understanding that Boudicca's rebellion was more than a bilateral conflict between its titular protagonist and the Romans, as well as the suspicion that their conception of other historical events may be similarly oversimplified.
3. By using the well-known events of 60 CE as the basis for an open-ended and unpredictable simulation, this exercise emphasizes the principle of historical contingency. By putting students in the shoes of historical actors and letting them generate "histories" which often differ wildly from events as they actually occurred, the game drives home the importance of historical agency, and the impossibility of studying the past as a pre-scripted march to the present.

Bibliography:
Gillespie, C. *Warrior Woman of Roman Britain*. Oxford: OUP, 2018.
Mattingly, D. *An Imperial Possession: Britain in the Roman Empire*. London: Allen Lane, 2006.

Notes: This game is part of the Coalitions and Contingency series, an ongoing project producing classroom simulation games for secondary and university history teachers. All games are released under open license on the C&C Games website. The C&C ruleset was initially inspired by the Gupta Game by Dr. S. Gordon.

How Were Mesoamerican Ball Games Played?

By Shane M. Thompson and Carl Walsh

A playing field site and team warm-up is vital before playing.

Materials: Playing field (preferably with trees or walls where hoops can be placed if using the hoop variant. Even better if the playing field is sloped), rubber balls (volleyballs or kickballs will work), hula-hoops, bungee cords, and colored team vests (optional)
Preparation Time: < 5 minutes
Expenses: Rubber balls, hoops, colored team vests (optional), and bungee cords can be bought in the range of total $20-$40.
Level of students: High school to undergraduate

Sites and Dates: Ballcourts were/are widespread across Central America and good examples can be found at San Lorenzo, Monte Alban, Yagul, Xochicalco, and Chichen Itza. 1650 BCE-Modern day.

General Background/discussion information: Ballgames (ōllamaliztli) are an early and widespread cultural phenomenon across Mesoamerica and were important in the expression of status and identity. They also had profound religious, ritual, and political functions in different Mesoamerican societies and cultures. While ballgames shared cultural importance across time and space, many variations of the game were practiced and developed, and the exact rules for many are still unknown. Modern versions of these games have survived in indigenous communities and some have recently been revived as indigenous national sports in different Central American countries under the name Ulama.

Ameca-Etzatlán Seated Ballplayer Figurine, The Metropolitan Museum of Art. *2005.91.1*

Instructions for the Activity:

- *Playing Field*: Find a playing space which can be used to house two teams. Most ballgames used a linear, rectangular court with a rectangular endzone, divided into two t-shaped sides for the teams. Later ballcourts often had stone sloped walls, off of which the ball could be bounced or hoops attached, so see if you can find someplace to replicate this. We used a sloped green area on campus with hoops tied to trees and court defined by bags.
- *Warm-Up*: Most Mesoamerican ballgame players did not use their hands, but instead used their hips and upper torso to hit and pass balls. It is unclear whether balls were allowed to touch the ground (based on the difficulty students have with not dropping the ball, we assume that it was probably ok). You may want to adapt rules to be more forgiving, allowing players to use the feet and arms as this can be quite difficult to pick up (Warning: this can quickly devolve into a game of soccer!). A warm-up where players are in a circle and practice different techniques of passing the ball and keeping it in motion/play is advised, both to limber up and to help players find what works for them. It is also a good icebreaker. Give students the option to not participate in the game play. Students who do not wish to participate can act as the audience and they can take notes on their observations about the rules.
- *Hoop Ballgame* (10 players minimum): For this game you attach two vertical hoops to a tree or wall through which players can shoot the ball. The hoops should hang a few feet above the ground. Divide the group into equal teams (make sure to mix up the sexes in the teams). Each team will have a hoop through which they try to pass the ball to score a point. Agree on a score to play up to. The ball must be passed between players without it hitting the ground more than once, keeping it in play and motion constantly. Have an umpire who can control the game as it can get quite chaotic.
- *Endzone Variant Ballgame*: This version is similar but instead of scoring by passing the ball through a hoop, players attempt to land the ball into the opponent's endzone without them being able to return the ball after a single bounce. This was the more common version of the game.

Learning Outcomes:

- To consider how this game could express status and identity in Mesoamerican society and why it is an important cultural symbol even today.
- To consider how using different parts of the body compares with western ballgames and appreciate how you use your body.
- What were the difficulties in playing the game and how might playing the game inform us about its rules? Remember that we only have depictions of ballplayers and archaeological evidence for courts. We do not have written rules.
- To consider how games in all societies can have multiple functions ranging from religious and political to the social.

Bibliography:

Scarborough, V., and D. Wilcox (eds.) 1991. *The Mesoamerican Ballgame*. Tucson: University of Arizona Press.

Fox, J. 1996. "Playing with Power: Ballcourts and Political Ritual in Southern Mesoamerica." *Current Anthropology*, 37(3): 483–509.

Taube, K. 2018. "The Ballgame, Boxing and Ritual Blood Sport in Ancient Mesoamerica." In C. Renfrew, I. Morley, and M. Boyd (eds.) *Ritual, Play, and Belief in Evolution and Early Human Societies*. Cambridge: Cambridge University Press.

Cohodas, M. 1975. "The Symbolism and Ritual Function of the Middle Classic Ball Game in Mesoamerica." *American Indian Quarterly* 2 (2): 99–130.

Miller, M. E., and S. D. Houston. 1987. "The Classic Maya Ballgame and Its Architectural Setting: A Study of Relations between Text and Image." *Res: Anthropology and Aesthetics*, 14: 46–65.

Online Resources:

- The Mesoamerican Ball Game, The Met.
- Ulama: The Ballgame Survives Today.
- 3400-year-old ballgame court unearthed in mountains of Mexico.
- Researchers unearthed a millennia-old ball court in the middle of the Mexican jungle, part of their excavation of the former Maya capital of Sak Tz'i'.

Plastered Skulls and Commemoration

by Pınar Durgun



Materials: Small plastic Halloween skulls, magic clay (preferably white), eye-sized seashells, ochre and vegetable/plant oil (optional)
Preparation time: none
Expenses:

- Small skulls: If you buy them right after Halloween you can find them for $1 or less each
- Magic clay: $4 for an individual package, but you can get these in larger packets to reduce the price.
- (Optional) Ochre: can be found as powder in art supply stores or on Etsy. You only need a little amount. Any kind of cheap vegetable/plant oil. Small paper cups for mixing the oil with ochre.

Level of Students: High school to undergraduate
Warning: includes images/discussion of human remains.

Sites: Central and southeastern Anatolia (Çatalhöyük, Köşk Höyük) and the Levant (Ain Ghazal, Jericho, Tell Aswad, Nahal Hemar, Kfar Hahoresh, Tell Ramad, Yiftahel)

Dates:
Early Neolithic, 7200–6000 BC in the Levant
Late Neolithic, 6000-5000 BC in Anatolia

General background/discussion information:
-Plastered skulls are often considered as one of the earliest forms of ancestor veneration. They indicate continuing bonds and interaction with the dead (ancestors?) as the body needed to decompose before the skull could be removed. Some have argued that they are a form of portraiture. Plastered skulls can be found in burials with other bodies (Çatalhöyük), as well as arranged in groups (Tell Aswad). The first examples of plastered skulls were excavated in Jericho —one of the earliest cities in the ancient Middle East— by archaeologist Kathleen Kenyon in 1953.
-Ian Kuijt, a Professor of Anthropology at the University of Notre Dame, argues that during the initial burial and during the removal of skulls from burials, the living still remembered the deceased as an individual. However, after the skull was plastered and used in ceremonies over 2-3 generations, the plastered skull acted as an image of a symbolic or distant ancestor whose identity was forgotten (*Current Anthropology*, 2008).
-(After the activity) Discussion: When Harry Potter discovers that the Mirror of Erised shows him his dead parents, he secretly keeps going back to it just to see them one more time. We can easily relate to wanting to see a beloved friend, a parent, or a child who passed away. Images of the deceased provide us with a tangible link to them. They enable us to interact with them, talk to them, and remember their faces (Durgun 2020).

Instructions for the activity: Students can work individually or in pairs.
Note: Before starting the activity, remind students to be respectful when talking about/handling the ancient plastered skulls. Remind them that archaeologists excavate, study, handle, and display actual ancient human remains with respect and care. (This could also tie into a discussion on ethics of studying human remains and burial objects).
• Try to recreate some of the "living" features on the skull using magic clay and shells.
• Optional: Paint your skull using ochre and vegetable oil.
    - Ochre can also be mixed with plant-based oils (or eggs).
    - Mix only a small amount (less than a tea spoon) of ochre with a tiny amount of oil (a couple of drops).
    - Note for the instructor: How much ochre and oil is mixed can be turned into an experimental question.

- While making your plastered skulls discuss:
    - What are some difficulties you face making the plastered skulls?
    - Do you think they are portraits of specific individuals? Why/not?
    - Why do you think Neolithic communities created and displayed these plastered skulls?
    - Do you think these were treated as images, objects, or individuals?
    - How do we remember and commemorate the dead today? Do you see any similarities/differences?

Learning Outcomes:

- To think about the reasons of why and methods of how plastered skulls were made.
- To question different archaeological interpretations about these images and to relate it to our own experience (empathy-building).
- To think about ethical issues of studying death and burial.

Bibliography:

Bonogofsky, Michelle. 2005. "A bioarchaeological study of plastered skulls from Anatolia: new discoveries and interpretations." *International Journal of Osteoarchaeology* 15.2: 124-135.

Durgun, P. 2020. "What can a 10,000-year-old tradition teach us about coping with death?" *Nursing Clio*, Deathbed series.

Kuijt, Ian, Mehmet Özdoğan, and Mike Parker Pearson. 2009. "Neolithic Skull Removal: Enemies, Ancestors, and Memory [with Comments]." *Paléorient* 35.1: 117-127.

Online resources:

- Facing the Past: The Jericho Skull. British Museum Blog.
- Plastered skulls with images and bibliography.
- Çatalhöyük 2012: Skull retrieval, curation and redeposition.
- Digital reconstruction of the face of a plastered skull.

Notes or suggestions for instructors: Better suited for death and burial courses, where students have already had an introduction to death and dying. It could also be used in the discussions of the Neolithic Period in a general survey course of the Ancient Near East.

Curating a Digital Egyptian Necropolis

by Caroline Arbuckle MacLeod

Materials: Each student will need access to a computer and the internet.
Preparation time: Variable depending on literacy with online platforms.
Expenses/budget: $0
Level of students: Undergraduate to graduate

General background/information:
In ancient Egypt, beliefs about funerary rituals and what objects were needed by the deceased to reach the afterlife changed over time. Access to different objects was also highly dependent on a person's status and wealth. In this activity, students will select real objects from ancient Egypt currently in museums, and use them to design a new burial. They will then curate their tomb online, creating a digital exhibit to show and explain their choices.

Instructions for the activity:

1. For Instructor: You can choose to complete steps 1-4 with or without the students, who should rejoin for step 5. Go to www.wordpress.com. Create an account attached to your email address by following the basic steps outlined after clicking "Get Started" (the free option is sufficient).
2. Set up the Home Page (from professor's account; group pages will link from here):
    - Once you have an account, go to "My Sites", a link in the top left.
    - Select "Site" from the left-hand menu, then select "Pages".
    - Click on the "Home Page" link you will see under the "Pages" options.
    - Give your page a title, e.g. "NEST 313 Digital Necropolis".
    - Add in a description of your digital necropolis in the text box.
    - Save your page by pressing "Update" and then click "Close" or hit the back button to exit the page editor (you can always change or update this page again later).
3. Put students into groups – pairs or up to four students per group is ideal.

4. Add students as editors (must be done from professor's account):
    - In the menu on the left-hand side, select "Manage" and then select "People". Click the "Invite" button on the page.
    - Select a web manager for each group, and add their email address to the list.
    - Select the "editor" button, and send them an invite. Students will now be able to create their own account and have access to edit the webpage.
5. After reading about the different forms of Egyptian burials (see Online Resources below), students should start to think about the burial they are designing.
    - Decide on a time period and a status (royal, elite, lower elite, etc.).
    - Choose 5 objects (coffin, shabti, etc.) needed to make an effective burial.
6. Go to an online museum database (example).
7. Search for and select the 5 objects for a burial. Ensure they are from the same time period, and are appropriate for the status of the imagined individual. Save at least one image of each object (right click on the image and select save).
8. Create the individual pages (can be done from student's account):
    - Once the student has their own account, they should sign in, and select the site the class created from "My Sites".
    - Then select "Site" from the left-hand menu and then "Pages".
    - Click the "Add new page" button.
    - Select a layout (I suggest Blank for smaller assignments).
    - Give the page a title – e.g. "The Tomb of Neferwy".
    - Add to the page by adding "blocks" (click on the blue "+" at the top left).
        a. Select the "Heading" block to add new paragraph titles.
        b. Select the "Paragraph" block to add new text.
        c. Select the "Image" block to add new images.

When the student selects the image block, they can then select "Upload" and add their saved images. Make sure to add a caption with a title and image attributions.

- Repeat as needed to create a new section for each object, explaining what the object is/does, and why it was selected.

    - Click "Publish" or "Update", and then the WordPress icon (top left) to return to "Pages".
9. Link the individual pages to the home page (must be done from professor's account):
    - Select "Design" then "Customize" from the menu bar.
    - In the Customize page, select "Menus", then "Primary", then "+Add Items"
    - Add the student pages, and reorder as desired. These will now show up on the homepage. The digital necropolis is complete!

Learning Outcomes:

- Create a basic website using WordPress
- Search through online museum collections to find object examples
- Describe the basic funerary objects required by the ancient Egyptians
- Understand changes in ancient Egyptian funerary practices.

Online resources:

- The Metropolitan Museum of Art Online Collection Database.
- Hays, H. 2010. "Funerary Rituals (Pharaonic Period)".
- Riggs, C. 2010. "Funerary Rituals (Ptolemaic and Roman Periods)".
- Stevenson, A. 2009. "Predynastic Burials".

Notes or suggestions for instructors: Before creating your site, check with your institution about privacy rules. Some institutions have a private WordPress subscription that you and your students can use to create pages and blog posts that are not open to the public. While these instructions will allow you to create a basic webpage, you can also explore the WordPress tutorials to make more elaborate pages. I have suggested the use of the Metropolitan Museum's online database because their object images are part of Creative Commons. If you choose a different database, make sure to pay attention to image permissions. For a more advanced form of this project, consider exploring the use of Omeka to create online digital exhibits with the option to add an object database. Once you have graded the assignments, you can choose to delete the site, or keep it up as an example for future classes.

Humanizing Roman History and Tragedy

By Anna Accettola



Materials: computer, video: "A Day in Pompeii – Full-length Animation," worksheet.
Preparation time: 10 minutes
Expenses/budget: none
Level of students: High school to upper level college
(warning: depictions of dead bodies)

Sites: Pompeii, Bay of Naples, Italy
Dates: Founded before the 6th century BCE

- Controlled by Romans in 3rd century BCE
- Re-founded as a Roman colony in 80 BCE
- Destroyed by Mt. Vesuvius in 79 CE
- Archaeological excavations began in 1748

General background/discussion information: Pompeii was a thriving mid-sized city in the first century CE and was popular for the production and sale of a popular fish-based condiment, called garum. Pompeii's main archaeological importance, however, is as a relic of the Roman world and a stunning example of daily life in a normal Roman city. On the walls, graffiti tell jokes about politicians and criticize ex-lovers. Markets stalls still hold remnants of the food and drink sold to the locals and merchants visiting to ply their wares. Baths, the central Forum, gladiatorial rings, theatres, and many other features of a traditional Roman city remain for archaeologists and tourists to visit and examine. In less than 24 hours in 79 CE, the entire city was covered in ask and toxic fumes from the eruption of Mount

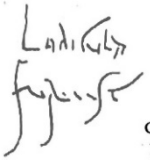
Vesuvius. The ash, in particular, sealed the city, trapping a detailed view of daily life.

Instructions for the activity:

- Introduce the history of Pompeii and its importance to understanding daily life in Rome
- If you went outside or into a public restroom, what kinds of graffiti might you see on the walls? What do they say?
- Show images of graffiti to show similarities between ancient and modern gossip

C.I.L. IV 9226

Caricature of a high-class Roman citizen, named Rufus "This is Rufus"



C.I.L. IV 4776
LADICVLA
FVR EST

Ladicula (Roman name) is a thief!

- Show video of the last day of Pompeii
- Optional: hand out a worksheet with questions for students to take notes
    - What is visually compelling about this video?
    - What else helps you to understand the events of the eruption?
    - How is this event different than you pictured it before?
- Discuss with students how 10 feet of ash and pumice buried the city and why people might have been trapped, even though the eruption took over a day. It is interesting to note that the current shape of Mt. Vesuvius shows how much of the mountain was destroyed in the eruption – if you follow the remaining slopes to their highest meeting point, you can see the original height of the mountain.
- Show pictures of the body casts made by the earliest archaeologists when they first started to excavate Pompeii. Warning: These are

images of people and animals in their death throes and can be very upsetting for students.
    - What are the ethics of making these casts?
    - What are the ethics of displaying them in museums and tourist attractions, such as with these examples? These are questions still heavily under debate.

The ethics of showing human remains are difficult to appreciate, especially when the subjects are from the ancient world. Bodies of the dead were sometimes destroyed making these models or left in the open and on display to tourists. Many people regard the disruption of human remains to be grave-robbing. In addition, viewers do not always treat the experience with respect for the dead (read more here).

Learning Outcomes:

- Appreciate the lived experience of ancient people and their similarities to modern society.
- Understand the efficacy of modern technology in bringing the ancient world to life.
- Debate the ethics of displaying body casts and the changing responsibilities of archaeologists and historians over the last two hundred years.

Bibliography:

Beard, M. 2009. "Pompeii: The Art of Reconstruction." *AA Files* 58: 3-7.
Sullivan, F. A. 1968. "Pliny Epistulae 6.16 and 20 and Modern Volcanology." *Classical Philology* 63.3: 196-200.

Online sources:

Tronchin, Francesca (2018). "Pompeii, an introduction." Smarthistory.
Bibliography on the ethical discussions about Pompeii and Herculaneum.

Notes or suggestions for instructors: Pliny the Younger's Letters are an excellent addition to this material. He was a primary source, first-hand witness, and lost his uncle to the toxic fumes when Pliny the Elder crossed the Bay of Naples trying to aid survivors.

Vessel Forms and Functions

By Shannon Martino

Materials: Cheap pottery (one per student)

It is important to have a variety of shapes, so I have Included links below to shapes I recommend:

- https://www.ikea.com/us/en/p/godtagbar-vase-ceramic-white-blue-00436733/
- https://www.ikea.com/us/en/p/stilren-vase-lilac-60442043/
- https://www.ikea.com/us/en/p/livsverk-vase-green-80442042/
- https://www.ikea.com/us/en/p/atertag-vase-set-of-3-green-pink-yellow-20459827/
- https://www.ikea.com/us/en/p/aterblick-bowl-stoneware-white-00446303/
- https://www.ikea.com/us/en/p/sockeraert-vase-white-10148464/
- https://www.ikea.com/us/en/p/vardagen-teapot-off-white-40289344/

- Other materials: towel/ pillowcase, hammer, and masking tape, sand paper

- Optional materials: glue and/or putty

Preparation time: 30min total to break every vessel in a bag if you do it yourself. You will want large pieces.

Expenses/budget: $2-4 per student (Ikea) less if from a second-hand store (Infinitely reusable!) It would also be helpful to have a complete piece available for inspection later or a photograph of that piece.

Level of students: Middle school onward, though it could be a demonstration for younger children (I would recommend sanding down the edges a bit if younger children are handling pieces themselves). For older students breaking the vessels could be part of the fun!

General background/discussion information:

When a researcher comes across broken pieces of pottery, they often have to come to an educated guess about its use based upon little information. This educated guess about a vessel's function is based on their many years of experience, knowledge of how similar pieces have look from their area of research, but also on an understanding of what vessel shapes indicate.

They must build a picture in their mind of what the vessel was like when it was whole. This exercise will give students the experience of making such a guess.

Before doing this activity, it would help to introduce students to a few vessel forms and I have included links to websites and articles that would help you to prepare such a lesson if you wish. In particular, it would be beneficial to teach students the difference between an open and closed vessel and look closely at the shapes of rims, necks, and bases. Briefly, from the Levantine Ceramics Project: "Shapes fall into two general types: open and closed. Open shapes are as wide or wider than they are tall, meaning that their diameter equals or exceeds their height; examples are bowls, plates, and pans. Closed shapes are taller than they are wide, meaning that their height equals or exceeds their diameter; examples are jars, jugs, and bottles." Open shapes are generally for serving and more solid foods, while closed are for storage and liquids, including serving liquids. The website for the Levantine Ceramics Project will provide you with several examples, but if you are focusing on Greek vessels you should probably use the Oxford website for examples.

Instructions for the activity:

1. Without showing students what the vessels look like, give each student two pieces of their broken vessel. (You could have students share a vessel and make some of this a group activity. Then you also would not need as much pottery) Do not be too hard on them; make it a handle, rim, or base piece, perhaps a neck piece for upper level students. (these will be sharp so you should warn students, especially depending upon age level).
2. Ask students to guess what part of the vessel they are holding. (for a longer lesson you could incorporate a sherd drawing lesson as discussed in the other activity in this handbook)
3. Ask students what they imagine the vessel was used for and why. Is it a "nice" piece, a piece that would be used to serve food? Would the food have been more liquid or solid, a drink or meal?
4. Now give students the rest of the pieces from their vessel and have them piece it back together using masking tape and/or glue or putty

depending upon your resources. Once they are done, ask them to think about their earlier guesses and what they learned from piecing it back together.

5. Lastly, if you have whole versions of each vessel, you may wish to fill every vessel with water and have students experiment walking with each vessel and pouring from it to learn a little more about how the shape of the vessel and rim affects such things.

Learning Outcomes:

- Students will learn how vessel forms are related to vessel function.
- Students will examine how the amount of information one has can limit one's conclusions.

Bibliography:

Hally, David J. 1986. "The Identification of Vessel Function: A Case Study from Northwest Georgia." *American Antiquity* 51, no. 2: 267-95

Bray, Tamara L. 2003. "Chapter 5 To Dine Splendidly Imperial Pottery, Commensal Politics, and the Inca State" in *The Archaeology and Politics of Food and Feasting in Early States and Empires*, p.93-142 (Pick some sections to read rather than the whole thing).

Online resources:

- Archaeosoup Productions. Aspects of Archaeology: Pottery. Video introduction to vessel shape.
- The Texas Foundation for Archaeological & Historical Research, introduction to pottery shapes.
- University of Oxford. Classical Art Research Centre. Introduction to Greek Pottery. Shapes. A great resource on pottery shape terms for Greek pottery, which are a great starting point for understanding modern shapes.
- Levantine Ceramics Project. For different types and microscopic images of pottery I recommend this site, which also has images of vessels next to their drawings.
- Hesselberth, John. "How to Make Drip-Free Spouts." Clay Times. An easy to read article on the importance of vessel shape.

Virtual Museum Exhibit: Humanizing the Past in the Present

Nadia Ben-Marzouk

Materials: Computer. Instructor should provide students with a list of campus resources informing students where they can borrow computers in the event that they do not own one.
Preparation time: The assignment is designed to be scaffolded over the course of an academic term as the final research project or can be revised to form a low-stakes assignment.
Expenses: None.
Level of students: High school to graduate

General background: While objects play a critical role in shaping our lived experiences, when it comes to understanding the past archaeologists work to excavate and interpret the material remains and written records left behind by various social communities in order to tell their story. This material is then housed in museums across the globe, where curators present archaeological interpretations for a broader audience in narrative form, providing an accessible glimpse into the past for the general public. How archaeologists and curators choose to tell the stories of the people they study, however, directly affects how the general populace understands the value of studying the past. In this assignment, students collectively work to build a virtual museum exhibit, framed around exploring contemporary social issues through the archaeological data. Individually, students serve as both archaeologists and curator, exploring a topic of their choice by composing an essay and curating a set of artifacts to educate the public on how their topic sheds light on a broader social issue related to the context of the course. Note that instructors can also provide students with the option of producing a podcast that is then integrated within the museum exhibit (see next activity in this volume). Collectively, the classroom community combines students' projects to construct a virtual exhibit connected with the course content, informing the public why the study of this material matters in the 21st century. Note this assignment is designed to be tailored to any course dealing with the past and material remains.

Instructions for the Activity:
1. Evaluate Virtual Museum Exhibits: Students evaluate three online museum exhibits —at least one dealing with the ancient world—in a 1.5-2 page write up in order to identify the elements that contribute to an engaging museum exhibit from a viewer's perspective. Please see "Evaluating Online Museum Exhibits" handout in Appendix. Through this exercise, students come to understand what is—and is not—effective from a viewer's perspective.
2. *Generate Rubric*: Students work with instructor and one another to generate a rubric for evaluating the assignment based on their evaluation of three virtual museum exhibits or collections.
3. *Generate Research Question and Dataset*: Students identify a topic and dataset to explore for their exhibit and connect it to a larger social issue of relevance today.
4. *Annotated Bibliography*: Students evaluate previous scholarship on their topic.
5. *Learn how to design a Google Site*: Students are tasked with watching a short tutorial on how to navigate and design a Google Site.
6. *Thematic Essay and Artifact Description*: Students write a 600 to 800-word essay on their topic for an uninformed audience, framing the essay around why the past topic is relevant for the modern viewer. Note that the essay can be divided up to frame different parts of the site. Students then select 5–7 artifacts with provenance from online museum collections or site reports and write a short 150-word description of each object, elaborating on how it allows more insight into their broader topic.
7. *Draft of Google Site*: Google sites allows for the easy integration of image, text, audio, and video in a user-friendly platform. Students design their online museum exhibit and exchange the site link with another student (or two) for a peer review using the rubric generated by the classroom community. As part of their site, encourage students to develop an interactive space that can includes audio, video, and images.
8. *Final Virtual Museum Exhibit*: Students submit the link to their Google Site to the instructor, who incorporates each individual page into the larger homepage (design of which is up to the instructor). Instructors who wish to make their Google site publicly available will need written permission by students.

Learning Outcomes:
This assignment is designed to introduce students to the work of archaeologists and curators, allowing students to develop a deeper understanding of why the past still matters today. As a result of completing this assignment, students will be able to:

- Develop their own interpretation of a social issue rooted in the course material by identifying, synthesizing and interpreting the relevant archaeological data, integrating scholarly sources so that they are stepping into a pre-existing academic discussion.
- Translate academic discourse into an accessible discussion for a broader audience, designing an interactive, multimedia space that speaks to a diversity of viewers.
- Discuss why the course material is still relevant in the 21st century.

Bibliography:
Packer, Jan. 2008. "Beyond Learning: Exploring Visitors' Perceptions of the Value and Benefits of Museum Experiences." Curator: *The Museum Journal* 51 (1):33-54.

Sumption, Kevin. 2006. "Beyond Museum Walls: An Exploration of the Origins and Futures of Web-Based, Museum Education Outreach." In *The International Handbook of Virtual Learning Environments*, Joel Weiss, Jason Nolan, Jeremy Hunsinger and Peter Trifonas (eds), 915-937. Netherlands: Springer.

Wahleithner, Juliet M. 2014. "The National Writing Project's Multimodal Assessment Project: Development of a Framework for Thinking about Multimodal Composing." *Computers and Composition* 31:79–86.

Online sources:

- Example website and exhibits created by my students.
- Potential museum sites to evaluate:
  - William the Hippo: Celebrating 100 Years at the Met
  - Powerhouse Museum
  - Museum of Broken Relationships

Podcast for Public Engagement

Nadia Ben-Marzouk and Danielle Candelora

Materials: Computer or audio recording device. Instructor should provide students with a list of campus resources informing students where they can borrow computers and audio-recording equipment in the event they do not own the required recording devices.
Preparation time: The assignment should be scaffolded over the course of an academic term and form the final research project.
Expenses: None.
Level of students: Undergraduate

General background: For many people, the ancient world is something that is distant and far removed from our current society. As such, this assignment is designed to position students to engage the public on a topic of their choice related to the course material in the form of a 15-minute podcast, bridging this gap between academic and non-academic communities. As part of this assignment, students learn the methods and acquire the skills necessary to: interpret the archaeological record, generate a research question; evaluate scholarly sources surrounding their topic; identify the data available to answer their research question; employ appropriate methods to interpret the data; and structure and support an argument based on their own interpretation of the data.

The added challenge is to then translate an academic argument into an accessible presentation of the data for a non-academic audience, performing one of the chief responsibilities of practitioners in the field of archaeology: public outreach and education. The podcasts produced by the class can then be used for an outward-facing student-produced series to engage the public on various topics rooted in the course material. As a multimodal assignment, the podcast therefore achieves certain objectives that cannot be realized with the traditional research paper.

Instructions for the activity:

1. *Evaluate Podcasts*: Students evaluate three podcasts dealing with the ancient world in 1.5-2 page write up in order to get an idea of what makes an engaging podcast from a listener's perspective. For a list of possible podcasts to assign students to evaluate, see Online Resources below.
2. *Generate Rubric:* Students work with instructor and one another to generate a rubric for assessing the assignment based on their evaluation of three podcasts. Students can also use the worksheet "Evaluating Podcasts about the Ancient World" in the Appendix.
3. *Generate Research Question and Dataset*: Students identify a topic and dataset to explore for their podcast and connect it to a larger social issue of relevance today.
4. *Learn Recording and Audio-Mixing Tools and Proper Citation*: Instructor should work with campus resources to set up a training session for students, if possible. As part of this training, instructor discusses copyright issues with students and how to appropriately cite sources in a podcast. See Creative Commons under Online Resources.
5. *Annotated Bibliography:* Students evaluate previous scholarship on their topic.
6. *Episode Description*: Students write a short 100 to 150-word episode description.
7. *Draft of Podcast (script and recording):* Students record their podcast and exchange files with another student (or two), evaluating the draft using the rubric generated by the classroom community to provide feedback for revisions.
8. *Final Podcast*: Students submit the link to their podcast with the instructor. Option: host podcasts on a publicly accessible page to generate a podcast series around course material. Note that instructor will need written permission by students to host podcasts on a publicly accessible site.
9. *Reflection*: Students submit a 2-page reflection on the skills they learned from completing this assignment, how they can translate outside of the classroom, and how the content they engaged enhanced their understanding of the course material.

Learning Outcomes:
The learning outcomes for this assignment are aimed at positioning students to perform as practitioners in the field. As such, students should be able to:

- Identify a topic, synthesize and interpret the relevant data, and identify, locate, evaluate, and integrate scholarly sources around their issue so that they are stepping into a pre-existing academic discussion.
- Effectively develop their own interpretation of an issue rooted in the course material, repackaging their discussion for a nonacademic audience.
- Reflect on how the skills and content learned in this assignment can be applied outside of the classroom.
- Develop media literacy as it pertains to the creation, vetting and dissemination of information to the general public in a digital podcast format.

Bibliography:
Bolliger, Doris U., Supawan Supanakorn, and Christine Boggs. 2010. "Impact of Podcasting on Student Motivation in the Online Learning Environment." *Computers & Education* 55 (2):714-722.

Buffington, Melanie L. 2010. "Podcasting Possibilities for Art Education." *Art Education* 63 (1):11-16.

Hamilakis, Yannis. 2004. "Archaeology and the Politics of Pedagogy." *World Archaeology* 36 (2):287–309.

Wahleithner, Juliet M. 2014. "The National Writing Project's Multimodal Assessment Project: Development of a Framework for Thinking about Multimodal Composing." *Computers and Composition* 31:79–86.

Online Resources:
Audacity.
Creative Commons.

List of Ancient World podcasts:
BBC, History of the World in 100 Objects
Archaeology Podcast Network
Student examples

APPENDIX

Identifying Centers of Domestication

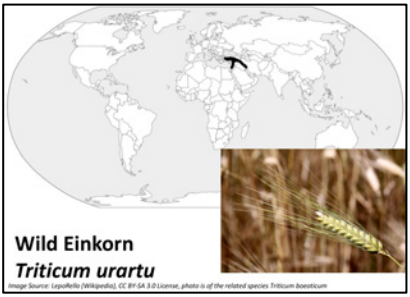
By Christopher W. Jones

This is a simplified list of founder crops from each center of domestication used in the exercise, along with their wild ancestors.
Species marked with an * are wild cards which do not originate from a center of domestication.

Domestic Crop:	Region grown (pre-modern):	Food Group:	Wild Ancestor:	Center of Domestication:
Common Wheat *Triticum aestivum*	Eurasia	Grain	**Wild Einkorn** *Triticum urartu*	Near East
Barley *Hordeum vulgare*	Eurasia	Grain	**Wild Barley** *Hordeum spontaneum*	Near East
Lentils *Lens culinaris*	Eurasia, India	Legume	**Wild Lentil** *Lens culinaris* supsp. *orientalis*	Near East
Garden Pea *Pisum sativum*	Eurasia	Legume	**Wild Pea** *Pisum sativum*	Near East
Chickpea *Cicer arietinum*	Eurasia, India	Legume	**Wild Chickpea** *Cicer reticulatum*	Near East
Proso Millet *Panicum miliaceum*	Eurasia, India	Grain	Debated, possibly **Witchgrass** (*Panicum capillare*)	China (Yellow River)
Asian Rice *Oryza sativa*	East/SE Asia, India	Grain	**Wild Rice** *Oryza rufipogon*, later hybridizing with *Oryza indica* in India	China (Yangtze River)
Soybean *Glycine max*	East Asia	Legume	**Wild Soybean** *Glycine max* subsp. *soja*	China
Pearl Millet *Cenchrus glaucum*	Africa, India	Grain	**Fountaingrass** *Cenchrus violaceum*	W. Africa
African Rice *Oryza glaberrima*	Africa	Grain	**African Wild Rice** *Oryza barthii*	W. Africa
Sorghum *Sorghum bicolor*	Africa, India	Grain	**Wild Sorghum** *Sorghum bicolor* subsp. *arubdinaceum*	W. Africa
White Yam *Dioscorea rotundata*	Africa	Starch	**Dika** *Dioscorea abyssinica*	W. Africa
Cowpea *Vigna unguiculate*	Africa	Legume	**Bambara Groundnut** *Vigna subterranean*	W. Africa
Potato *Solanum tuberosum*	S. America	Starch	**Wild Potato** *Solanum brevicaule*	Andes
Quinoa *Chenopodium quinoa*	S. America	Pseudo-grain	**Wild Quinoa** *Chenopodium quinoa* var. *melanospermum*	Andes
Common Bean *Phaseolus vulgaris*	The Americas	Legume	**Wild Bean** *Phaseolus vulgaris* var. *aborigineus* or *mexicanus*	Andes/Oaxaca

Corn *Zea mays*	The Americas	Grain	**Teosinte** *Zea mays* subsp. *Parviglumis*	Oaxaca
Summer Squash *Cucurbita pepo*	S/C. America	Vegetable	**Wild Squash** *Cucurbita fraternal*	Oaxaca
Little Barley *Hordeum pusillum*	N. America	Grain	**Little Barley** *Hordeum pusillum*	Ohio Valley
Sunflower *Helianthus annuus* var. *macrocarpus*	N. America	Seed	**Wild Sunflower** *Helianthus annuus*	Ohio Valley
Goosefoot *Chenopodium berlandieri* subsp. *jonesianum*	N. America	Pseudo-grain	**Goosefoot** *Chenopodium berlandieri*	Ohio Valley
Sumpweed *Iva annua* var. *macrocarpus*	N. America	Seed	**Sumpweed** *Iva annua*	Ohio Valley
Summer Squash *Cucurbita pepo*	N. America	Vegetable	**Ozark Melon** *Cucurbita pepo* subsp. *ozarkana*	Ohio Valley
Taro *Colocasia esculenta*	SE Asia, India, New Guinea	Starch	**Taro** *Colocasia esculenta*	New Guinea
Banana *Musa x paradisiaca*	SE Asia, India, New Guinea	Fruit	**Wild Banana** *Musa acuminata*	New Guinea
Sago *Metroxylon sagu*	New Guinea	Starch	**Sago Palm** *Metroxylon sagu*	New Guinea
Cassava* *Manihot esculenta*	S./C. America	Starch	**Wild Cassava** *Manihot esculenta* subsp. *flabellifolia*	Amazon*
Kale* *Brassica oleracea viridis*	Europe/ Med.	Vegetable	**Wild Cabbage** *Brassica oleracea*	Europe*

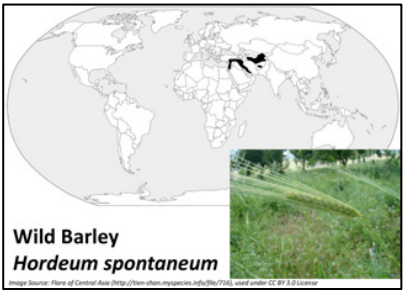
Following are sample cards of founder crops linked to the Near East center of domestication to serve as a guide for anyone who desires to make their own set of cards. This set includes five of eight Near Eastern founder crops. Flax, bitter vetch, and emmer have been eliminated for simplicity.



Grown In:
Middle East
North Africa
Europe
Asia

Barley
Hordeum vulgare
Grain

Image Source: U.S. Department of Agriculture, Public Domain.



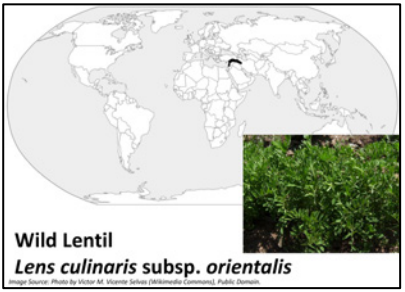
Wild Barley
Hordeum spontaneum

Image Source: Flora of Central Asia (http://tien-shan.myspecies.info/file/716), used under CC BY 3.0 License

Grown In:
Middle East
North Africa
Europe
India

Lentils
Lens culinaris
Legume

Image Source: Photo by Christopher W. Jones.



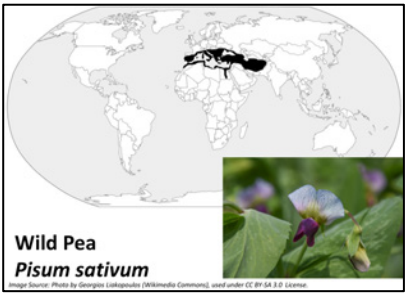
Wild Lentil
Lens culinaris* subsp. *orientalis

Image Source: Photo by Victor M. Vicente Selvas (Wikimedia Commons), Public Domain.

Grown In:
Middle East
North Africa
Europe

Garden Pea
Pisum sativum
Legume

Image Source: Photo by Bill Ebbesen (Wikimedia Commons), used under CC BY-SA 3.0 License.



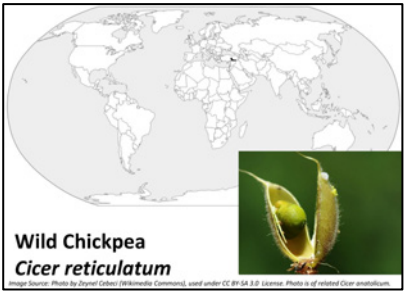
Wild Pea
Pisum sativum

Image Source: Photo by Georgios Liakopoulos (Wikimedia Commons), used under CC BY-SA 3.0 License.

Grown In:
Middle East
Europe
India

Chickpea
Cicer arietinum
Legume

Image Source: Photo by Tito Monto (Wikimedia Commons), used under CC BY-SA 4.0 License.



Wild Chickpea
Cicer reticulatum

Image Source: Photo by Zeynel Cebeci (Wikimedia Commons), used under CC BY-SA 3.0 License. Photo is of related Cicer anatolicum.

Life on the farm: how can we reconstruct past agricultural choices?

By Jennifer Bates

Table of Regions and Environmental Settings

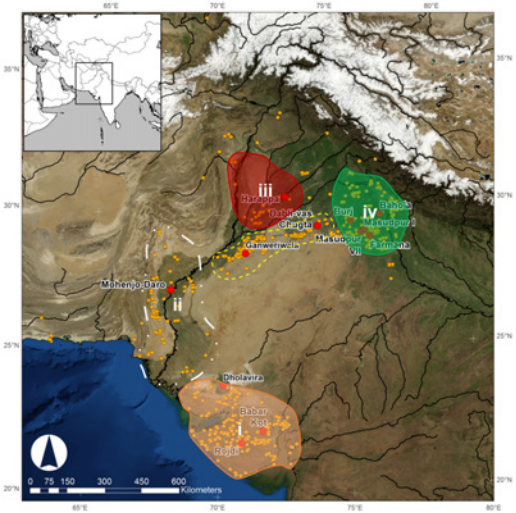


Figure 1: Map of Indus Civilization with regions labelled following Petrie and Bates (2017: figure 6).

Region i: GUJARAT (big city – Dholavira)

Hot, with arid winters but wet summers. Dominated by summer monsoon, with very little (if any winter rainfall).

Average annual rainfall: 345mm

Winter rainfall: 18mm

Summer rainfall: 327mm

Average annual temperature: 26°C (79°F) with highs of 32°C (91°F)

Limited river flow through region (small tributaries only), so reliant on rains and capturing that rain fall.

Salt in soil is a big problem.

Soil thin, and not well replenished by river sedimentation.

Region ii: Sindh (big city – Mohenjo Daro)

Hot and dry, but with a river running through it, the Indus River

Average annual rainfall: 181mm

Winter rainfall: 20mm

Summer rainfall: 161mm
Average annual temperature: 27°C (80°F) with highs of 34°C (93°F)
High river flow through region as sits on Indus River itself, with regular instances of flooding, including years of severe flooding (think of the 2012 floods when the Indus burst it's banks and caused devastation for vast swathes of Pakistan). Indus flows year-round and is fed by glacial melt waters in the Himalayas – it floods in the summer primarily but these floods can be powerful on rare occasion as well as the gentle regular ones.
Salt in soil is a big problem.
Soil is regularly replenished and nourished by sedimentation during the flooding.

Region iii: Punjab (big city – Harappa)
Warm and wet, with a river running through it, the Ravi River
Average annual rainfall: 368mm
Winter rainfall: 66mm
Summer rainfall: 302mm
Average annual temperature: 24°C (76°F) with highs of 28°C (84°F)
High river flow through region as sits on Ravi River, a tributary of the Indus River, with regular instances of flooding. This allows for controlled floodwater irrigation of the fields near the river, and for year round farming. Winter rain is important in this region, and it is the most dependent on winter rainfall of all the regions.
Soil is regularly replenished and nourished by sedimentation during the flooding near the river.

Region iv: North-Eastern Region (big city – Rakhigarhi)
Warm and wet, with a seasonal river, the Ghaggar-Hakra flowing only during the summer months.
Average annual rainfall: 434mm
Winter rainfall: 46mm
Summer rainfall: 388mm
Average annual temperature: 25°C (76°F) with highs of 32°C (90°F)
Rather than an annual river in this region the area is blanketed each summer by small seasonal rivers and gentle blanket floods from the summer glacial melts and overbank flow. The soil is replenished and this

becomes a fertile region for both summer and winter cropping as the soil is replenished for both seasons across the entire region.
Soil is regularly replenished and nourished by sedimentation during the flooding.

The region still to be explored…the Thar Desert (big city – Ganweriwala)
This region has not been numbered on the map as we have virtually no agricultural (or even archaeological) information about it. We know there are sites, people have surveyed and found them, but almost no excavation has occurred. This region sits on the border between Pakistan and India. It is in the middle of the Thar Desert and is therefore extremely hot and arid.
Average annual rainfall: 210mm
Winter rainfall: 13mm
Summer rainfall: 197mm
Average annual temperature: 27◦C (80◦F) with highs of 34◦C (93◦F)
Salt in soil is a big problem.
Soil not regularly replenished as no regular flooding. Sand is a problem.

Table of Crops

CEREALS
- Wheat (Triticum aestivum/durum/turgidum)

Season: winter
Water requirements: HIGH
Growth: single year
Space: compact, lots in one field
Preferences: doesn't like barley
Risks: not drought tolerant or salt tolerant (salt occurs in hot dry climates), high management
Yield: YYY
Income: $$$
Uses: Fancy crop in villages of Gujarat and Haryana, staple food in cities and other regions

- Barley (Hordeum vulgare)

Season: winter
Water requirements: MEDIUM
Growth: single year
Space: compact, lots in one field
Preferences: doesn't like wheat
Risks: drought tolerant, but less than millet, needs weeding and maintenance
Yield: YYY
Income: $$
Uses: Staple food in all regions and fodder for animals

- Millets (lots of varieties, all small grained cereals)

Season: summer monsoon
Water requirements: LOW
Growth: single year
Space: spreads BUT can still get lots in one field (for reference this 'laterally tillers' – the plant sends out lots of sideways shoots, blankets the ground and smothers the soil. Your lawn grass does this as well)
Preferences: will kill rice
Risks: tolerant of all conditions (drought and flood) and fast growing (30-60 days to seed) so low risk, and very low management – throw seeds on ground and harvest thirty days later.
Yield: Y
Income: $
Uses: staple food in all regions and fodder crop for animals

- Rice (Oryza sp.)

Season: summer monsoon
Water requirements: VERY HIGH
Growth: single year
Space: compact, lots in one field
Preferences: doesn't like millet, prefers to be on its own with no other crops, like damp ground, can tolerate floods (check river location)
Risks: not tolerant of any drought at all, needs wet conditions and warm climate, will not tolerate salt in soil, high management

Yield: YYY
Income: $$$$
Uses: Fancy crop in cities, rare and exotic

PULSES

- Peas (Pisum sativum)

Season: winter
Water requirements: MEDIUM
Growth: single year
Space: crawling, need space
Preferences: can be grown with cereals but best kept apart on own land
Risks: not drought tolerant, needs fairly good watering (rainfall is important) BUT do not flood it (check the river location!)
Yield: YY
Income: $$
Uses: standard addition to diet

- Chickpeas (Cicer arietinum)

Season: winter
Water requirements: MEDIUM-HIGH
Growth: single year
Space: compact, lots in one field
Preferences: grow well alongside wheat and barley and help keep soil healthy when grown together.
Risks: needs good watering (rainfall is important) BUT do not flood it (check the river location!)
Yield: YY
Income: $$
Uses: standard addition to diet

- Lentils (Lens culinaris)

Season: winter
Water requirements: MEDIUM-HIGH
Growth: single year
Space: compact, can grow a lot in one field
Preferences: can be grown with cereals but best kept apart on own land

Risks: needs good watering (rainfall is important) BUT do not flood it (check the river location!)
Yield: YY
Income: $$
Uses: standard addition to diet
Mung beans (Vigna radiata)
Season: summer monsoon
Water requirements: MEDIUM
Growth: single year (but can be over two years so may need land set aside across both winter and summer…)
Space: crawling, need space
Preferences: can be grown with cereals but best kept apart on own land
Risks: not flood tolerant (check river location)
Yield: YY
Income: $$
Uses: standard addition to diet

- Urad beans (Vigna radiata)

Season: summer monsoon
Water requirements: LOW
Growth: two years (set land aside over both seasons)
Space: crawling, need space
Preferences: need their own land set aside for them, will kill rice
Risks: drought tolerant, not flood tolerant (check river location)
Yield: YY
Income: $$
Uses: standard addition to diet

- Horsegram (Macrotyloma uniflorum)

Season: summer monsoon
Water requirements: MEDIUM
Growth: single year
Space: crawling, need space
Preferences: can be grown with cereals but best kept apart on own land
Risks: low management needed, can let it do its own thing during growing season, and easy to harvest, not flood tolerant (check river location)

Yield: YYY
Income: $$
Uses: standard addition to diet

- African gram (Vigna trilobata)

Season: summer monsoon
Water requirements: HIGH
Growth: single year (but can be over two years so may need land set aside across both winter and summer…)
Space: crawling, need space
Preferences: can be grown with cereals but best kept apart on own land
Risks: possible risks of unfamiliar crop and thus unsure of how to grow well for high yield given intolerant of drought, but theoretically low management, tolerant of floods (can be put near the river)
Yield: YY (possibly Y)
Income: $$$
Uses: exotic, rare, new addition to the Indus Civilization from Africa, likely to be unusual and this fun thing for people to add to their diets

OILSEEDS AND FIBRE CROPS

- Mustard (Brassica sp.)

Season: winter
Water requirements: MEDIUM
Growth: single year
Space: compact, can grow lots in one field
Preferences: grows well when in same field as wheat/barley in little rows between the cereals
Risks: if there is too much drought after the seeds start to grow this causes severe yield loss. Because of your water choices (look at where the river is…)
Yield: Y to YY depending on how much you want to specialise!
Income: $$$
Uses: oilseed

- Flax/Linseed (Linum usitatissimum)

Season: winter
Water requirements: HIGH
Growth: single year (but can be over two years so may need land set aside across both winter and summer…)
Space: compact, can grow lots in one field BUT flax likes lots of space so…
Preferences: doesn't grow well with other plants, grow it on its own
Risks: slow growing, needs good watering (rainfall is important) BUT do not flood it (check the river location!)
Yield: Y to YY depending on how much you want to specialise!
Income: $$$
Uses: oilseed and fiber crop, two crops for the price of one depending on how much you grow (you won't get enough material for fiber unless you grow a lot of it)

- Indigo (Indigofera tinctoria)

Season: summer monsoon
Water requirements: HIGH
Growth: single year (but can be over two years so may need land set aside across both winter and summer…)
Space: shrub, so needs own large space
Preferences: you'll need a lot of these to get enough seeds for a dye batch – specialise?
Risks: slow growing, needs good watering (rainfall is important) BUT do not flood it (check the river location!)
Yield: Y to YY depending on how much you want to specialise!
Income: $$$
Uses: dye for fabric industry, can be good income producer IF you specialise, but do you want to risk it all on this industry staying healthy after the Indus collapses?

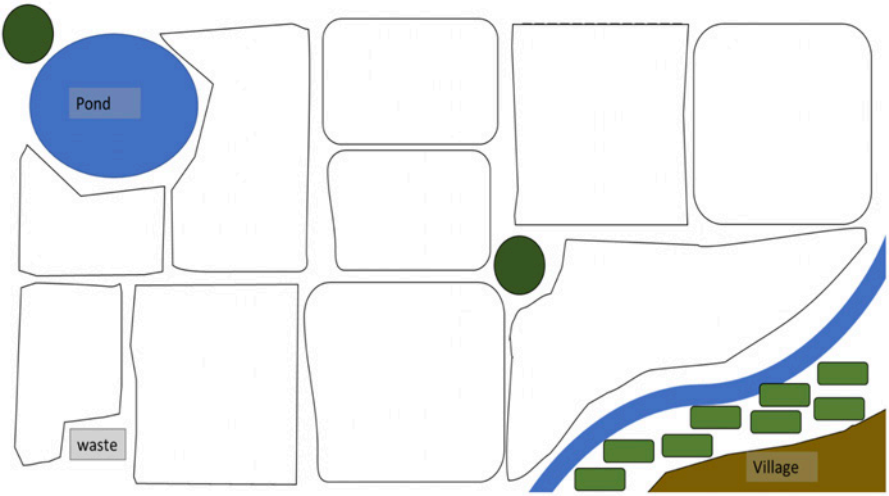
TREES

- Trees (Jujube – Ziziphus sp.; date palm – Phoenix dacytilifera)

Season: fruit at various times
Water requirements: variable, and not really a problem
Growth: tree, so long growing

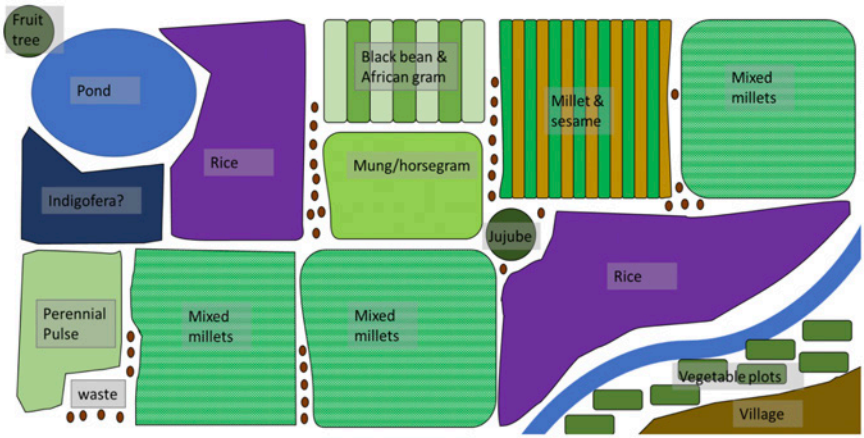
Space: tree, needs a LOT of space
Preferences: can be grown at the side of a field as a singe tree, or you could maximise yield at the expense of some land and grow an orchard
Risks: very slow growing but low maintenance. To get any money out of this you need to specialise in an orchard, but this is a HUGE investment in space and time – not $ for many years, and that land needs to sit empty for a long time (decades).
Yield: Y to YYY depending on how much you want to specialise!
Income: $ to $$$ depending on how much you want to specialise!
Uses: flavour! Add some fun to that bland cereal based diet. And wood for building, for fires etc.

Table of Diagrams



SUMMER MONSOON – example for North-Eastern region

WINTER – example for North-Eastern Region



Ön Asya'da Mühür Yapımı ve Kullanımı

Erhan Tamur ve Pınar Durgun

Gerekli malzemeler: Orta sertlikte kil veya oyun hamuru, oklava, bebek pudrası, mini fırın (isteğe bağlı, sondaki uyarıyı lütfen dikkate alın), zımpara kağıdı, mühür taşları ve oymacılık/yontmacılık aletleri
Ön hazırlık süresi: Yok
Masraflar:
-Kil/oyun hamuru: Fırınlabilir polimer kil üreten yerli ya da yabancı markalarından herhangi birini seçebilirsiniz. 250 gramlık bir kutu, 7-8 mühür baskısı yapmak için yeterli olacaktır.
-Oklava: En ucuzundan bir adet oklava yeterlidir.
-Bebek pudrası: En ucuzundan, 50 gram bebek pudrası yeterli olacaktır.
-Mühür taşları: Sanat malzemeleri satan kırtasiye, hobi mağazaları ve marketlerden alınabileceği gibi, internet üzerinden "Ali Express" gibi sitelerde "taş oyma" v.b. anahtar kelimelerle de bulunabilir. Taş oyma atölyelerinde kullanım dışı bırakılan artık taşlar da işinizi görecektir. Genelde kireçtaşı, sabuntaşı gibi yumuşak ve çalışılması kolay taşlar tercih edilmelidir.
-Oymacılık/yontmacılık aletleri: Her öğrenci için birer tane olması idealdir. Bu etkinlikte düz oyma kalemi ve keski kullanımı yeterli olacaktır, diğer aletlere gerek yoktur. İnternet üzerinden, taşlarla birlikte set halinde alınabilir.
Öğrenci düzeyi: Liseden lisansüstüne
İlk ve ortaokul seviyesindeki öğrencilerle çalışıyorsanız, taş ve metal kullanmak yerine, şu bağlantıda belirtildiği gibi seramik hamuruyla mühürlerinize biçim verip, sonrasında kalem veya kürdan ile dilediğiniz şekli kazıyabilirsiniz. Bu tür seramik hamurlarının fırında pişirilmesine ihtiyaç yoktur, kendi kendilerine hava temasıyla kururlar.

Bulundukları arkeolojik yerleşkeler: Ön Asya ve Akdeniz medeniyetleri
Tarihler: Yaklaşık M.Ö. 6000'den Helenistik Dönem'e kadar

Genel tartışma ile ilgili bilgiler: Mühür kullanımı, Ön Asya'da M.Ö. 6. Binyılda yerleşmeye başlamıştır. Binlerce yıl boyunca ürünlerin ve bunların

konulduğu depoların güvence altına alınmasında, belge içeriklerinin tasdiklenmesinde imza ve damga görevi görmüşlerdir. Ayrıca mühür kullanımı, kişisel, sınıfsal ve toplumsal kimliğin önemli bir parçasıdır. Çoğu mühür taşının kendine has özellikleri hatta tılsımları olduğuna inanıldığı gibi, bazı taşlar Afganistan ve ötesinden ithal edilmiştir.
Sadece birkaç santimetrelik yüzeylerine çağlar boyunca yüzlerce farklı çeşit desen tersten yontulmuş olup, mühür baskısı yapıldığında bu desenler yumuşak kil üzerine kabartma olarak aktarılırdı. Damga ve silindir mühür arasındaki en önemli fark, silindir mühürlerin bastırılmaktan ziyade kil üzerinde yuvarlanmasıyla bir desen şeridi oluşturması ve böylece baskı alanlarının sanatsal potansiyelini oldukça arttırmasıdır.

Etkinlik talimatları:

- Ön Asya'da kullanılmış olan damga ve silindir mühür desenleri ve tasarımlarını inceleyip beğendiğiniz birini taslak olarak kağıt üzerine çizin. Elbette isterseniz kendi özgün tasarımınızı da yaratabilirsiniz.
- Birazdan taşın üzerine kazıyacağınız desenin, mühür baskısı yaptığınızda tam ters olarak belireceğini şimdiden dikkate alın.
- Taşın üstünü hafifçe zımparalayıp pürüzsüz hale getirin.
- Oyma ve kazıma işlemine küçük kertik ve kesitlerle başlayıp, baskı alanınızın ve figürlerin sınırlarını belirleyin. Sonrasında bu kesitleri yavaşça derinleştirip, onlara hacim kazandırmaya çalışın. Özellikle figürlerin duruş şekillerini ve giydikleri kıyafetlerin detaylarını yansıtmaya çalışın.
- Oyma ve yontma işlemi sırasında taşın üstü toz kaplayacaktır. Bunu elinizle ya da bir fırça yardımıyla temizleyip devam edin.
- Oyma ve yontma işlemi bittiğinde, kil ya da oyun hamurunuzdan küçük bir top şeklindeki (yaklaşık 30 gramlık) bir parçayı koparıp elinizde yoğurun, sonra oklava yardımıyla yaklaşık 1 cm kalınlığında olacak şekilde açın.
- Çok az bir miktar bebek pudrasını, açtığınız kil ya da oyun hamurunun üzerine serpin ve elinizle iyice yayın. Böylece mühür baskısı yaptığınızda, mühür taşının hamura yapışmasını önlemiş olacaksınız.
- Artık mühür baskısı yapmaya hazırsınız. Silindir şeklinde bir taş kullanıyorsanız, birden fazla kez yuvarlamayı unutmayın.

- İsterseniz üzerine mühür baskısı yapılmış kil ya da oyun hamurunu mini fırında beş dakika ve 120°C olacak şekilde pişirebilir ve hatıra olarak saklayabilirsiniz. UYARI: İşiniz bitince mini fırını iyice temizlemeyi unutmayın, temizlemeden gıda ısıtmak ya da pişirmek için kesinlikle kullanmayın.

Öğrenme sonuçları:

- Eski Ön Asya'da mühürlerin kullanım amaçları ve yapım tekniklerini tartışıp öğrenmek.
- İki boyutlu bir desenin üç boyuta aktarılması süreçlerini tecrübe etmek.
- Eski Ön Asya'da mühür oymacılığı atölyelerinin işleyişi hakkında bilgi sahibi olmak.

Kaynakça:

Collon, Dominique. 1987. *First Impressions. Cylinder Seals in the Ancient Near East*. Chicago: The University of Chicago Press.

Porada, Edith. 1993. "Why Cylinder Seals? Engraved Cylindrical Seal Stones of the Ancient Near East, Fourth to First Millennium B.C." *The Art Bulletin* 75(4): 563-582.

Sax, Margaret, John McNabb, and Nigel D. Meeks. 1998. "Methods of Engraving Mesopotamian Cylinder Seals: Experimental Confirmation." *Archaeometry* 40 (1): 1-21.

İnternet kaynakları:

Silindir Mühür ve Çağdaş Baskı, Khan Academy

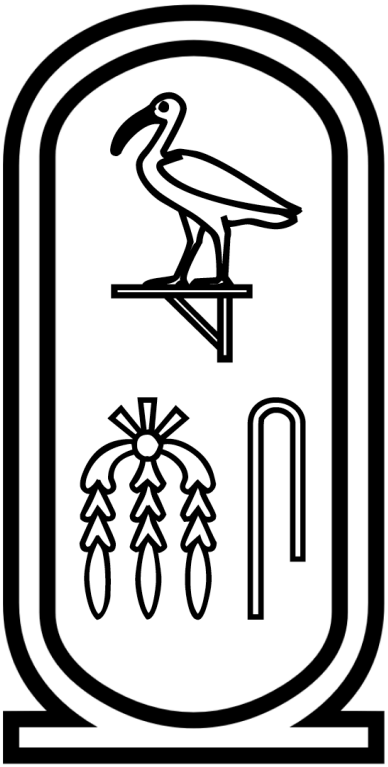
Cylinder Seals: Tiny Treasures That Leave a Big Impression, The Met.

Mesopotamian Seals. CDLI.

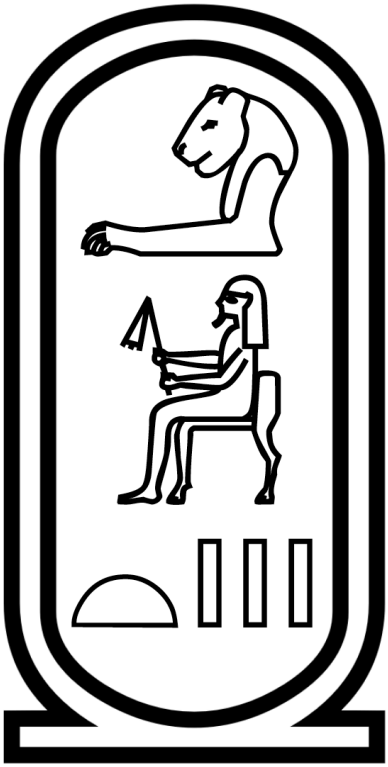
Cylinder seals. Teaching History with 100 objects, British Museum.

Carving Ancient Egyptian Reliefs

By Jen Thum



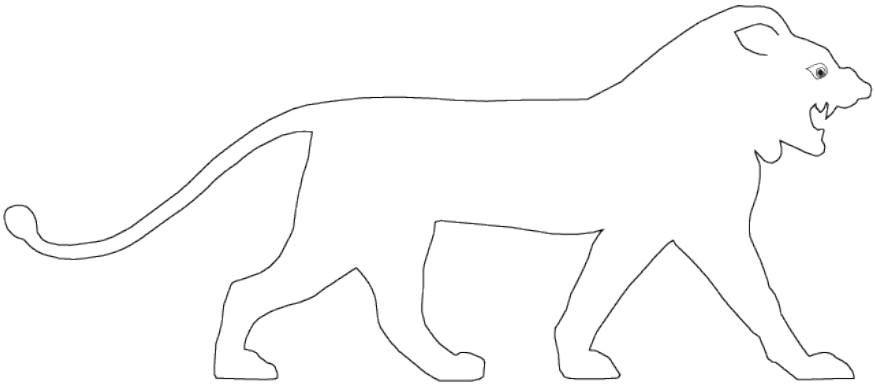
Tuthmosis

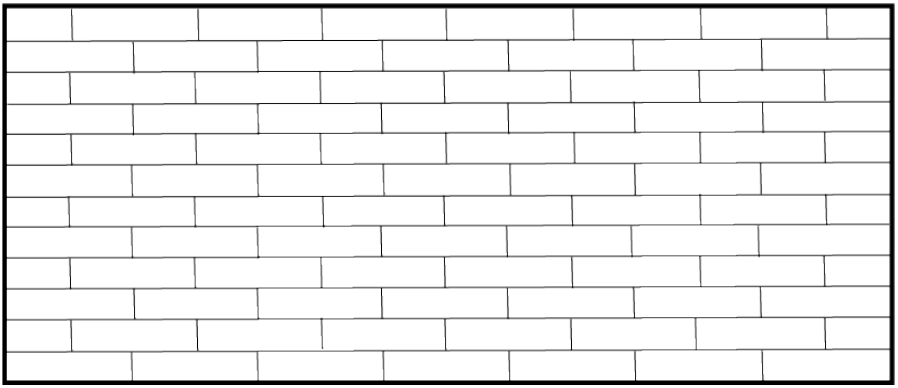


Hatshepsut

Making Lions at Babylon

By Anastasia Amrhein and Elizabeth Knott





Roman Portraiture: #veristic, #classicizing

By Alena Buis

Work title	
Artist if known	
Date	
Form	
Content	
Context	
Classizing or veristic?	
Hashtag(s)	

IS IT:

Classizing?	Veristic?
- Helllenistic, looking back to Greece	- Republican, family connections
- Youthful, smooth	- Wrinkles, imperfections
- Idealized	- Realistic
- Young	- Old
- Godlike	- Patrician

How were clay tablets made and how does cuneiform work?

Handout by Sara Mohr

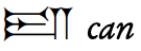
Cuneiform is a writing system! (NOT a language)

- Cuneiform was first used to record Sumerian, a language isolate with no known relatives, spoken in what is now southern Iraq
- Cuneiform was adopted to write Akkadian, a Semitic language (like Hebrew, Arabic, and Aramaic), which was widely spoken in Mesopotamia
- Also used to write: Eblaite, Hittite, Hurrian, Ugaritic, and Urartian

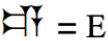
All cuneiform signs are a combination of five wedges:

Cuneiform signs are polyvalent (they have multiple possible values)

- Signs can be polyphonous (same sign can be used to represent different sounds)

 *can represent the values* DA *or* ṬA

- Signs can be homophonous (different signs can be used to represent same sounds)

 = E = the phoneme /e/

 = É (or E_2) = house (Akk. *bītum*)

 = È (or E_3) = to exit (Akk. *waṣûm*)

Cuneiform signs can be read as logograms (standing in for whole words) or phonemes (standing in for sounds)

Example: In Akkadian texts, the Sumerian for king, LUGAL  , stands in for the Akkadian word for king, *šarrum*.

All you need to write cuneiform is clay and a stylus!

Some Common Logograms

barley		= *ŠE*	=
beer		= *KAŠ*	=
city		= *IRI (sometimes read as URU)*	=
day		= *UD*	= 
house		= E_2	=
	palace	= E_2.*GAL*	=
king		= *LUGAL*	=
	queen	= *MUNUS.LUGAL*	=
land		= *KUR*	=
ox		= *GU4*	= 
sheep		= *UDU*	=
son		= *DUMU*	=
	daughter	= *DUMU.MUNUS*	=
silver		= KU_3.*BABBAR*	=
	gold	= KU_3.*GI*	= 

tablet	= *DUB*	= 
scribe ("tablet-writer")	= *DUB.SAR*	= 
school ("tablet house")	= E_2.*DUB.BA*	= 
student ("child of the t. h.")	= *DUMU* E_2.*DUB.BA*	=

Determinatives and Other Markers

Personal name, usually male	= ^{m} *or* ^{I}	= 
Feminine name	= ^{munus} *or* ^{f}	= 
City	= ^{iri} *(also read as* ^{uru}*)*	=
Profession	= ^{lu_2}	=
Plural marker (after logogram)	= *MEŠ*	= 
Place name (after logogram)	= ^{ki}	= 

Common Consonant + Vowel Signs

ba		*da*		*ga*	
be		*di*		*gi*	
bi					
bu		*du*		*gu*	
ḫa		*ka*		*la*	
ḫi		*ki*		*li*	
ḫu		*ku*		*lu*	
ma		*na*		*pa*	
me		*ne*		*pi*	
mi		*ni*		*pu (see bu)*	
mu		*nu*			
qa		*ra*		*sa*	
qi		*ri*		*si*	
qu		*ru*		*su*	
ša		*ta*		*za*	
še		*te*		*zi*	
šu		*ti*		*zu*	
		tu			

Common Vowel + Consonant Signs

a'/e'/i'/u' 

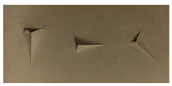
ab		*ad*		*ag*	
ib		*id*		*ig*	
ub		*ud*		*ug*	
		aḫ/iḫ/uḫ			
al		*am*		*an*	
el		*im*		*en*	
il		*um*		*in*	
ul				*un*	
ar		*as*		aš	
ir		*is*		eš	
ur		*us*		iš	
				uš	

Writing a Cuneiform Letter

By Klaus Wagensonner

Write Your Own Name in Cuneiform

Types of wedges



An example

pe te er

Syllables

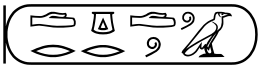
A		BA		EH		IH		NE		TI									
AB		BE		EK		IK		NI		TU									
AD		BI		EL		IL		NU		U									
AG		BU		EM		IM		PA		UB									
AH		CHA		EN		IN		PE		UD									
AK		CHE		EP		IP		PI		UG									
AL		CHI		EQ		IQ		PU		UH									
AM		CHU		ER		IR		QA		UK									
AN		DA		ES		IS		QE		UL									
AP		DE		ESH		ISH		QI		UM									
AQ		DI		ET		IT		QU		UN									
AR		DU		EZ		IZ		RA		UP									
AS		E		GA		KA		RE		UQ									
ASH		EB		GE		KE		RI		UR									
AT		ED		GI		KI		RU		US									
AZ		EG		GU		KU		SA		USH									
				HA		LA		SE		UT									
				HE		LE		SI		WA									
				HI		LI		SU		WE									
				HU		LU		SHA		WI									
				I		MA		SHE		WU									
				IA		ME		SHI		ZA									
				IB		MI		SHU		ZE									
				ID		MU		TA		ZI									
				IG		NA		TE		ZU									

Rosetta Stone
By Christian Casey

Rosetta Stone

Part 1: Determine the sounds of these hieroglyphs...

... using the names of these famous kings who once ruled Egypt:

	Psamtek
	Darius (Duriush)
	Alexander (Aleksandros)
	Autocrator
	Caesar (Kaisaros)
	Cleopatra
	Ptolemy (Ptolemaios)

La Epopeya de Gilgamesh y el valor de la amistad

Leticia Rovira y Cecilia Molla

Materiales: "La Epopeya de Gilgamesh", capítulo de Siesta Z, serie televisiva de dibujos animados (Realizadores: El Perro en la Luna SRL - Argentina, en coproducción con Colombia, Brasil, Perú y Ecuador).[34]
Hojas de papel blanco de 10 cm. x 10 cm., 1 por alumno.
Un gran papel afiche y rotuladores.
Tiempo de preparación: ninguno
Gastos: ninguno
Nivel de los estudiantes: Educación Primaria (6-7 años)

Fecha y sitio: III milenio a. C., Uruk, (Iraq)
Fuentes primarias: La Epopeya de Gilgamesh (ver bibliografía)

Información general:
Las epopeyas, como los mitos, muchas veces quieren dar respuesta a preguntas que se hacen los hombres y mujeres sobre sus vidas. Las leyendas sobre Gilgamesh que se difundían oralmente desde el III milenio a. C. por todo el Cercano Oriente se conformarían como un texto único recién en la época kasita (1545 - ca. 1400 a. C.), encontrando en las bibliotecas de Babilonia y Asiria lo que conocemos como su versión estándar, la del escriba Sin-leqi-uninni en el I milenio, transcripta en doce tablillas. En ellas se narra cómo Gilgamesh sale de su reino de Uruk para vivir diferentes aventuras. Una de ellas es su encuentro con su antagonista y luego compañero Enkidu. Suele vérselos a uno y a otro como las representaciones encarnadas de la civilización y la naturaleza respectivamente. Luego de la muerte de este último, el objetivo de Gilgamesh recae en la búsqueda de la inmortalidad que encontrará no de

[34] Agradecemos a la productora El perro en la Luna SRL, Argentina, por permitirnos reproducir imágenes del capítulo con el que aquí se trabaja.

manera física, pero si a raíz de sus proezas que nos llegan hasta hoy. La literatura del antiguo Cercano Oriente tiene un exponente conocido universalmente gracias a este personaje y sus hazañas.

Instrucciones para la actividad:
1) Relatarles brevemente a los niños algunas generalidades sobre Gilgamesh, su epopeya y el medio social de producción de la misma (se puede tener en cuenta para ello el apartado Información general de esta actividad). Pedirles que presten atención a la historia que van a ver.
2) Luego de ver el video
A) Discutir sobre el significado de algunas palabras como "protagonista", "amigos", "rival", "héroes", "inmortalidad", y cualquier otra que se considere pertinente.
B) Reflexionar a partir de preguntas como las siguientes:

¿Por qué comienza su viaje Gilgamesh?
¿Cómo fue su relación con Enkidu?
¿Qué pasó en el enfrentamiento con el Toro Celeste?
¿Por qué va en búsqueda de la inmortalidad? ¿La encuentra?

3) Luego de asegurarnos que comprendieron la historia, pedirles que dibujen en las hojas de 10 cm. x 10 cm., que les entregaremos, alguno de estos valores que debieron ser expuestos en la conversación anterior:

- La valentía para emprender el viaje,
- La amistad a partir de su relación con Enkidu.
- El compañerismo para resolver dificultades a partir de la escena del enfrentamiento conjunto de con el Toro Celeste.
- La empatía de Siesta frente a Gilgamesh cuando pierde la flor de la vida eterna.

La humildad frente a la arrogancia de querer ser inmortal.
4) Cerrar la actividad con una reflexión sobre la celebración del "Día del amigo"[35] y la importancia del compañerismo y la empatía en las relaciones

[35] Se espera llevar adelante esta experiencia en una Escuela Pública Primaria en la ciudad de Rosario, Argentina, en 2do grado (niños de 6-7 años) con el fin de celebrar "El día del amigo" el 20 de julio de 2020. Esta festividad se encuentra muy arraigada en la cultura argentina siendo un día celebrado informalmente en todo el país. Esperamos que el contexto de pandemia por Covid-19, generalizada en el mundo, pueda permitirnos realizarla.

humanas y cómo ello es perceptible en todas las sociedades, tal y como lo encontramos retratado en esta epopeya de hace tantos miles de años.
5) Recolectar los dibujos y juntarlos en un gran afiche que tenga alguna leyenda sobre la amistad que hayan propuesto los pequeños.

Resultados esperados:
Se pretende que los niños a partir de un relato mítico puedan entender la importancia y universalidad de los valores trabajados y sobre todo de la amistad, el compañerismo y la empatía. A su vez que tengan un primer acercamiento a las sociedades antiguas del Cercano Oriente, y sus relatos, comprendiéndolas como parte significativa de la historia y cultura a nivel mundial, y aún relevantes en la contemporaneidad.

Bibliografía:
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D'Agostino, Franco (2007) *Gilgameš o la conquista de la inmortalidad*. Madrid: Trotta.
George, Andrew (ed.) (2004) *La epopeya de Gilgamesh*. Barcelona: De bolsillo.
Silva Castillo, Jorge (ed.) (1994) *Gilgamesh o la angustia de la muerte*. México: El Colegio de México.
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Recursos on-line:
La Epopeya de Gilgamesh, presentación de Andrew George, Harvard Museum of the Ancient Near East (Inglés).
Actividades en línea para la educación secundaria, por Cecilia Molla.
Recreación del sitio de Uruk, por Ozzeuk.

What's Up Doc? Diagnosing & Treating Illness in Antiquity

By Chelsea A.M. Gardner & Maggie Beeler

You are a physician in 5th century Greece. Based on your newly acquired knowledge of Hippocratic medicine, you will present the symptoms and prognosis of a sick patient. Remember: your knowledge of the human body is based on external observation, and the dissection of animals only. You believe in external causes of illness, not religious ones. You believe in rigorous documentation of afflictions and outcomes, but healing is not your specialty.

Instructions:

- Choose a common illness that may have afflicted people in antiquity. Note: something acute rather than chronic, and physical rather than mental will be easier to describe and diagnose. Do not write this down – based on your description, another group will have to guess what the illness is!
- Describe your patient: age, sex, socio-economic class, occupation, etc.
- Describe your patient's symptoms. Remember, a symptom is "a physical or mental feature which is regarded as indicating a condition of disease, particularly such a feature that is apparent to the patient." What is the patient complaining of? What might you notice as a doctor that they don't? What might you (with your limited anatomical knowledge) think is a symptom but actually isn't?
- What do you believe was the cause of the illness? What are your recommendations for treatment?
- Explain the duration and outcome – how long did these symptoms last? Did they change? Did your patient ultimately recover, become temporarily or permanently disabled, or even die?

Following is an example:

- Patient Description: *14-year old male, from a well-known family of artisans (potters).*

- Patient Symptoms: *Patient is complaining of acute appetite loss, stomach pains, vomiting, diarrhea for 24 hours, immediately following a trip to the Piraeus port. Long-term symptoms include intermittent pains in the legs and increased appetite over the last year, with no resulting weight gain. Upon physical inspection, patient has red, pus-filled blisters upon his face and neck, and is lethargic.*

- Cause of Illness/Recommendations for Treatment: *Patient is consuming too many rich foods and wine, this is causing his digestion problem. His environment is too humid, resulting in lack of clear air to his face. Patient must restrict himself to a diet of fresh fruit, barley, and limit consumption of wine to address lethargy. No meat must be ingested. Apply an herbal salve to the face daily to treat pustules and avoid humidity.*

- Duration & Outcome: *The patient's stomach pains, diarrhea and vomiting ceased within 12 hours of the prescribed treatment. His appetite has returned, but his leg pains and facial lesions remain. It is recommended that he continue the prescribed diet and salve for the foreseeable future.*

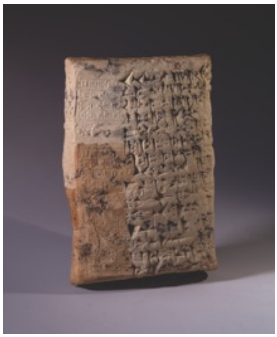
Your Patient Had: *Food Poisoning!*

(Note: the facial blisters and leg pains were acne and growing pains associated with puberty, put in here to try and trick the other group!)

Build Your Own Exhibition: Women at the Dawn of History

By Elizabeth Knott, Agnete W. Lassen, and Klaus Wagensonner

CHECKLIST OF POSSIBLE EXHIBITION OBJECTS:

	No. 1 Gift of a female slave	Keywords: cuneiform writing, seal impressions, tablets
	No. 3 The sale of land belonging to a priestess	Keywords: cuneiform writing, seal impression, tablets
	No. 5 Women at work	Keywords: cylinder seals
	No. 8 Three women introduced to a god	Keywords: cylinder seals

	No. 11 Qishti-Enlil's seal	Keywords: cylinder seals
	No. 13 Cylinder seal with nude woman	Keywords: cylinder seals
	No. 19 Worship of a goddess	Keywords: cylinder seals
	No. 20 Worshippers including three females, before a seated goddess	Keywords: cylinder seals
	No. 23 Headless statue of a female priestess	Keywords: statues

	No. 26 Incantation against the baby-snatching demon Lamashtu	Keywords: cuneiform writing, Lamashtu, tablets
	No. 27 An amulet against Lamashtu	Keywords: amulet, cuneiform writing, Lamashtu,
	No. 30 Clay mold for figurine of a woman nursing an infant	Keywords: molds, plaques
	No. 31 Cylinder seal showing women on birthing bed	Keywords: cylinder seals

	No. 35 Coiffure for a statue of a lady	Keywords: statues
	No. 36 Goddess Ishtar astride two crouching lions	Keywords: molds, plaques, Ishtar
	No. 38 Nude female figurine	Keywords: figurines

	No. 41 Plaque with a nude woman	Keywords: molds, plaques
	No. 44 The first authored writing: Enheduanna's "Exaltation of Inana"	Keywords: cuneiform writing, hymns, Enheduana, Inana/Ishtar, tablets

Reenacting the Battle of Kadesh

By Stephanie Selover

Sample Hittite Names:

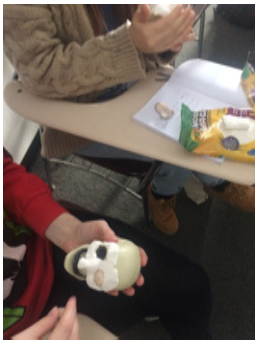
Kili-Teshub
Kurunta
Arnuwanda
Urikki
Wasusarma
Akia
Urhiteshub
Wassurme
Tudhaliya
Anitta
Happi
Istanu
Telepinu
Kulitta
Warika
Mashuiluwa
Ushitti
Danuhepa
Gassulawiya
Gilu-Khepa
Harapsili
Hebat
Henti
Ilani-irinna
Istustaya
Massanauzzi
Muwatti
Nikalmati
Puduhepa

Sample Egyptian Names:

Mesu
Quasshie
Iritis
Tothi
Piouer
Amun thori
Mert-kha-ra
Meines
Tati-nas-ka-nofre
Har-mena
Miebies
Nep-ra
Utnas
Amentotankhatra
Tunar-i
Khaemt
Het
Kekara
Sitra
Shadya
Anneke
Auset
Manet-ankh
Nephthys
Hem-su-isi
Phut
Monifa
Nubit
Ara

Sıvalı kafatasları neden ve nasıl yapılmıştır?

Pınar Durgun



Gerekli malzemeler: Küçük plastik oyuncak kafatasları, kil veya oyun hamuru (tercihen beyaz), göz boyutunda deniz kabukları, okra ve bitkisel yağ ve bunları karıştırmak için kap (isteğe bağlı)
Hazırlama süresi: yok
Masraflar:

- Kafatasları: Oyuncakçılarda (cadılar bayramı süslemeleri olarak da) bulunabilir.
- Kil veya oyun hamuru: Bireysel paket halinde satın alınabilir, ancak fiyatı azaltmak için bunları daha büyük paketlerde alabilirsiniz. Oyuncakçılarda ve kırtasiyelerde bulunabilir.
- İsteğe bağlı: Okra pigmenti tozu, bitkisel yağ (herhangi ucuz bir yağ)

Öğrenci Düzeyi: Liseden lisansa.
Uyarı: insan kalıntılarının tartışmasını içerir.

Bulundukları arkeolojik yerleşkeler:
Orta ve Güneydoğu Anadolu (Çatalhöyük, Köşk Höyük) , Suriye (Tell Aswad), and Doğu Akdeniz (Ain Ghazal, Jericho, Nahal Hemar, Kfar Hahoresh, Tell Ramad)

Tarihler:
Erken Neolitik, MÖ 7200–6000 (Doğu Akdeniz için)
Geç Neolitik, MÖ 6000-5000 (Anadolu için)

Genel tartışma ile ilgili bilgiler:
Sıvalı kafatasları genellikle atalara saygı göstergelerinin en eski formlarından biri olarak kabul edilir. Kafatasının vücuttan ayrılması için belli bir süre geçmesi gerekiyordu. Bu da bize bu kafataslarının mezarlardan çıkaran insanların ölülerle devam eden etkileşimlerini gösterir. Sıvalı kafatasları başka cesetlerle gömülebilirler (Çatalhöyük) veya gruplar halinde düzenlenmiş halde bulunabilirler (Tell Aswad). Sıvalanmış kafataslarının ilk örnekleri 1953'te arkeolog Kathleen Kenyon tarafından eski Orta Doğu'nun en eski şehirlerinden biri olan Jericho'da ortaya çıkarılmıştır.

Notre Dame Üniversitesi'nde Antropoloji profesörü olan Ian Kuijt, sıvalı kafatasları hakkında şu yorumu yapar: İlk gömü sırasında ve kafataslarının mezarlardan çıkarılması sırasında, yaşayanlar hala ölenleri bir birey olarak hatırlarlar. Kafatası sıvandıktan ve 2-3 kuşak boyunca törenlerde kullanıldıktan sonra, sıvalı kafatası sembolik veya kimliği unutulmuş bir atanın siması olarak sergilenmiş olmalıdır (*Current Anthropology*, 2008).

Aktiviteyi bitirdikten sonra tartışın: Harry Potter, Erised Aynası'nın ona ölü ebeveynlerini gösterdiğini fark ettiğinde, onları sadece bir kez daha görebilmek için aynayı gizlice ziyaret etmeye devam eder. Hepimiz kendimizi vefat etmiş sevgili bir arkadaşını, bir ebeveynini veya bir çocuğunu görmek isteyen bir kişinin yerine koyabiliriz. Resimler ve tasvirler ölenler ile somut bir bağlantı kurmamıza olanak verir, onlarla etkileşim kurmamızı, konuşmamızı ve yüzlerini hatırlamamızı sağlar. Sıvalı kafatasları da bu tür bir işlev görmüş olmalıdırlar (Durgun 2020).

Aktivite talimatları: Öğrenciler tek başlarına veya iki kişilik bir grup halinde çalışabilirler. Aktiviteye başlamadan önce öğrencilere bu kafatasları hakkında konuşurken saygılı olmaları gerektiklerini hatırlatın. Arkeologların da insan kalıntıları üzerinde çalışırken saygılı ve dikkatli olmaları gerektiğini belirtin.

- Kil veya oyun hamuru ve deniz kabuklarını kullanarak kafatasındaki bazı "canlı" özellikleri yeniden yaratmaya çalışın (kulak, burun, gözler vs.).
- İsteğe bağlı: Kafatasınızı okra ve bitkisel yağ kullanarak boyayın.
- Sıvalı kafataslarınızı yaparken şu soruları tartışın:
    - Sıvalı kafataslarını yaparken karşılaştığınız zorluklar nelerdir?

- Sizce Neolitik topluluklar bu objeleri neden yaratıyorlardı? Sizce bunlar bir obje olarak mı yoksa bir bireyin portresi olarak mı sergileniyordu?
- Günümüzde ölüleri nasıl hatırlayıp anıyoruz?

Öğrenme sonuçları:
- Sıvalı kafataslarının neden ve nasıl yapıldığını düşünmek.
- Kafataslarını yeniden yaratmada kullanılan yöntemleri deneyimlemek.
- Sıvalı kafataslarla ilgili farklı arkeolojik yorumları sorgulamak ve bunları kendi deneyimlerimizle ilişkilendirmek (empati geliştirme).

Kaynakça:
Bonogofsky, Michelle. 2005. "A bioarchaeological study of plastered skulls from Anatolia: new discoveries and interpretations." *International Journal of Osteoarchaeology* 15.2: 124-135.

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Kuijt, Ian, Mehmet Özdoğan, and Mike Parker Pearson. 2009. "Neolithic Skull Removal: Enemies, Ancestors, and Memory [with Comments]." *Paléorient* 35.1: 117-127.

Özbek, Metin. 2009. "Köşk Höyük (Niğde) Neolitik Köyünde Kil Sıvalı İnsan Başları." *Journal of Faculty of Letters/Edebiyat Fakultesi Dergisi* 26.1.

İnternet kaynakları:
- Aktüel Arkeoloji Neolitik Kafatası Kültü, M. Bonogofsky.
- Jericho sıvalı kafatasları, British Müzesi
- Kafatası kültü hakkında daha ayrıntılı bilgi, D. Schmandt-Besserat
- "Kafatası kültü uygulaması sıcaklıklarla birlikte arttı", Arkeofili.

Eğitmenler için notlar ve öneriler: Öğrencilerin ölüm ve ölü gömme konusuna önceden giriş yapmış oldukları, ölüm ile ilgili dersler için daha uygundur. Anadolu ve Antik Yakın Doğu'nun tarihi ve arkeolojisi ile ilgili genel derslerde, özellikle Neolitik Dönem ile ilgili tartışmalarda da kullanılabilir.

Virtual Museum Exhibit: Humanizing the Past in the Present
Nadia Ben-Marzouk

Evaluating Online Museum Exhibits: The following questions provide guidance for your evaluation of different online museum exhibits. As you reflect on how the design of each space affected your experience of and engagement with the material as a viewer, begin to take note of what is—and is not—effective for your own project.

Accessibility

- Does the title of each page describe its purpose and/or the topic presented?
- Is the design of the space intuitive to navigate?
- Do photos provide alternative text descriptions? If there are videos or audio, are captions available?
- Is color used to convey information? Might this be problematic for some viewers?
- Is the site accessible to multiple communities?

Presentation of Content and Viewer Engagement

- What are your first impressions of the online space?
- Is the exhibit information framed in a way that demonstrates how the collection of artifacts sheds light on a broader issue of collective relevance?
- Is each artifact labeled with basic information (e.g., context, period, material)?
- If there is an expanded discussion of the artifact, does it clearly articulate how it connects with the broader theme of the exhibit? Is there a level of coherence for the collection of artifacts?
- If you wanted to learn more about this topic, is there a list of resources for you to consult?
- How does the space utilize its online format? Is it interactive? Does the use of multimedia detract from or supplement the overall theme?

Additional Observations

- From a viewer's perspective, what do you find to be most/least engaging about the presentation of the content? Why?
- How did this exercise as a viewer help you to think about and better understand some of the decisions made by—and responsibilities of—museum curators?

Podcast for Public Engagement

Nadia Ben-Marzouk and Danielle Candelora

Evaluating Podcasts about the Ancient World: The following questions provide guidance for your evaluation of different podcasts. As you reflect on how the design of each podcast affected your experience of and engagement with the material as a listener, begin to take note of what is—and is not—effective for your own project.

Accessibility

- Does the title and episode description describe its purpose and/or the topic presented?
- Does the host speak loudly enough to be easily and comfortably heard over background sound effects?
- Were there graphics or images to accompany the episode description? Is the podcast accessible to multiple communities?
- Is the script of the podcast available online for hearing impaired listeners?

Presentation of Content and Viewer Engagement

- What are your first impressions of the podcast?
- Are there multiple voices (is this a conversation) or a single narrative? What are the pros and cons of this format for the podcast content?
- How are the different segments blocked out or separated? Did they use sound clips?
- How did the host cite information, if at all?
- How did the host utilize primary sources?
- How was the podcast framed in the introduction? Did this provide a strong sense of where the content would go and why you as a listener should be interested?
- What made this podcast (un)engaging?

Additional Observations

- From a listener's perspective, what do you find to be most/least engaging about the presentation of the content? Why?
- How did this exercise as a listener help you to think about and better understand some of the decisions made by—and responsibilities of—scholars making more public-facing podcasts?