

Historical Practice and Artifact-Focused Authentic Assessment in an Introductory World History Course

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“I felt like it was very fun! I wouldn’t say I was ridiculously confident in my final product, but at the same time I feel like I want to narrate a documentary! I enjoyed bringing history to life in this way, but it was also a healthy reminder for how difficult a historian’s job really is.”¹

“I think that I enjoyed this assignment more than the paper assignments done in class. This assignment gave me the opportunity to be more hands-on with the artifacts that we were talking about.”²

“I feel less impending doom as I now have a better grasp of how to find research. I find them [secondary sources] to be pretty large and daunting but Compared [sic] to before, I feel more confident.”³

The quotations above come from an online reflection survey that students took after submitting podcasts contextualizing museum artifacts in an introductory-level world history class at a Midwestern American university. Across the board, student-respondents appreciated the opportunity to work with artifacts from a local museum and develop a project that paralleled a professional historian’s tasks. As museum educator Craig Barker has argued, “museums remain one of the most useful resources available for developing historical understanding for students of all ages and levels.”⁴ One student wrote approvingly: “I think that this type of assignment is much more useful than essays or exams, as it is a sample of the work a historian has to complete.”⁵ Other students noted that the assignment’s stages helped them better understand how the historian investigates the past. One student commented: “by conducting my own research on my artifact, it made it easier for me to understand the research process and recognize which sources were relevant or useful.”⁶ These experiential narratives suggest that students see artifact-focused research assignments as beneficial for the learning process and for understanding their chosen profession: “[it is] a good way to get a feel of how historians do research and compile it all together. It is a good way for students to go through the process of a historian.”⁷

Recent research has also shown that similar artifact-based (or object-based) learning strategies are associated with improved subject-specific knowledge, as well as the development of transferable scholarly and communications skills.⁸ By creating podcasts based on their own selection, examination, and contextualization of artifacts, students engaged in the sort of active inquiry process that is associated with long-term recollection of learned knowledge. As students followed a clear process they created linkages between artifacts and then between

1 Student 1 Survey Response, Semester 6.

2 Student 4 Survey Response, Semester 6.

3 Student 6 Survey Response, Semester 6.

4 Craig Barker, “History teaching and the museum,” in *Historical Thinking for History Teachers. A new approach to engaging students and developing historical consciousness*, ed. Tim Allender (London: Routledge, 2019), 260, <https://doi.org/10.4324/9781003115977> .

5 Student 19 Survey Response, Semester 6.

6 Student 17 Survey Response, Semester 6.

7 Student 9 Survey Response, Semester 6.

8 Leonie Hannan, Rosalind Duhs and Helen Chatterjee, “Object-Based Learning: A Powerful Pedagogy for Higher Education,” in *Museums and higher education working together: challenges and opportunities*, eds. Anne Boddington, Jos Boys, and Catherine Speight (London: Routledge, 2013), 162.

ideas about artifacts and ideas about the society of origin. These activities facilitated the process of independent meaning-making that sits at the core of active and experiential learning.⁹

The challenge in an Introductory World History class is to practice historical thinking while introducing students to new regions, questions, and types of sources, and without overloading them or reverting to a coverage model.¹⁰ As Helen Chatterjee, Leonie Hannan, Scott Paris and their collaborators have shown, artifact-focused discussions offer snapshots of the past that facilitate comparison across continents and centuries, encourage active and experiential learning, and appear more tangible and relevant to students.¹¹ This article introduces instructors to a series of activities that scaffold the process of creating artifact-focused podcasts, while practicing fundamental historical thinking processes.¹² When these activities are used in succession, students progress from close observation of one artifact to comparing several artifacts and then placing their observations in context using scholarly secondary sources. Not only does this process allow students to complete an assessment that mirrors a museum professional's work, but it scaffolds basic historical thinking tasks into a more complex assessment, which is hard to do in a one-semester content-heavy course.

As many educational researchers have argued, both in the classroom and future work environments, students are expected “to be able to find, organize, interpret, analyze, evaluate, synthesize, and apply new information or knowledge to solve non-routine problems.”¹³ Over the past two decades the Humanities has billed itself as a flexible domain with analytical and communicative processes at its core. This has preserved History's place in the general education curriculum, but challenges instructors to marry knowledge of the past with historical disciplinary skills. The current educational emphasis on skill demonstration and professional preparation makes “authentic assessment” a useful component to any secondary and post-secondary-level World History classroom. Combining it with an artifact-focused approach helps students see how knowledge arises from examining evidence and better understand the work of History professionals.¹⁴

As Ashford-Rowe, *et al.* noted, authentic assessment requires matching skill development with the appropriate assessment mode in order to ensure that “assessment supports learning” by allowing students to demonstrate acquired skills and knowledge, as they progress towards achievement.¹⁵ This means that authentic assessment cannot be tacked onto a course, but exists as an integral organizing component that spurs activities that develop skills, direct knowledge acquisition, and result in a culminating ‘product.’ As Grant Wiggins, who coined the phrase ‘authentic assessment’ has argued, the most useful feedback is formative and functions as a running commentary that accompanies student work as it progresses, rather than appearing after its completion. Although a running commentary requires more checkpoints, it also offers greater opportunity for students to

9 Sharan B. Merriam and Barbara Heuer, “Meaning-making, adult learning and development: A model with implications for practice,” *International Journal of Lifelong Education* 15, no. 4 (1996): 243-255; Hannan, Duhs and Chatterjee, “Object-Based Learning,” 161.

10 Lendol Calder, “Uncoverage: Toward a Signature Pedagogy for the History Survey,” *Journal of American History* 92, no. 4 (March 2006): 1358-1359.

11 Helen Chatterjee and Leonie Hannan, eds., *Engaging the Senses: Object-Based Learning in Higher Education* (Aldershot: Ashgate, 2015), <https://doi.org/10.4324/9781315579641>; Scott G. Paris, ed., *Perspectives on Object-Centered Learning in Museums* (London: Routledge, 2002).

12 Students can complete these activities individually, in small groups, or as a class depending on their skill level and the instructor's need. While this study originated in an introductory class at a four-year university, the activities are flexible and easily adapted to middle school and high school needs.

13 Kom H. Koh, “Authentic Assessment,” *Oxford Research Encyclopedia Education Research and Assessment Methods* (2017), <https://doi.org/10.1093/acrefore/9780190264093.013.22>.

14 Likewise, Craig Barker has included “Students will gain direct experience of learning to think and act in the way a professional historian/archeologist/art historian does” as one of the five animating ideas of his model educational program at the University of Sydney's Nicholson Museum; Barker, “History teaching and the museum,” 271.

15 Kevin Ashford-Rowe, Janice Herrington, and Christine Brown, “Establishing the critical elements that determine authentic assessment,” *Assessment and Evaluation in Higher Education* 39, no. 2 (2014): 205, <https://doi.org/10.1080/02602938.2013.819566>.

reflect, respond, and strengthen their work.¹⁶ While formative assessment offers a much larger portal into student learning than summative assessment does, it also requires a deeper integration of learning goals and activities and more frequent observation and assessment.¹⁷

Many scholars have advocated authentic assessment as an appropriate tool for tracking the higher-order thinking that is characteristic of the competencies many History departments advocate and general education courses demand. Bain and Ellenbogen have shown how teaching historical thinking aligns with the aims and resources of many museums.¹⁸ Yet, as Arabella Sharp *et al.* note, few studies have explored the impact of university-level artifact-based learning.¹⁹ Fewer scholars still tackle plans for secondary and post-secondary World History classrooms.²⁰ This article strives to fill the gap by describing the process employed in one introductory-level World History university class. These assessment activities also allow instructors to observe how students describe and compare artifacts, evaluate information and sources, and build and support arguments, making them appropriate for any general education History course. This article's first section provides an overview of artifact-focused podcasts as a World History textbook and a model for student work. The second section describes model assignments that scaffold the historical thinking process students follow as they produce their own artifact podcast. The third section explores student progress using these assignments over several semesters, and students' own reflections on their usefulness.

Podcasts: Uses and Precursors

To access investigations of the past in an intellectually and financially accessible way, open-access Public History podcasts are a valuable source. Many of these podcasts focus on one type of artifact or a single event as a portal to a larger human or regional experience. This technique also reduces the vastness of World History, which students appreciate. Podcasts also tend to provide more meta-discourse allowing students to better understand the historian's knowledge-building process. Often textbooks are the chief historical voice that students encounter, yet traditionally textbooks obscure the selective process that produces secondary sources. This characteristic sits in contrast to the emphasis on reflection that is key to historical thinking and to active learning. Museum educator and theorist Elaine Heumann Gurian has argued that a museum is “*a place that stores memories and presents and organizes meaning in some sensory form.*”²¹ Textbooks contrast with the reflection and discussion that Heumann Gurian has encouraged museums to foster in their visitors. Artifact-based podcasts offer more room for independent meaning-making while foregrounding the historian's process, making them useful conduits for historical content and meta-discourse.

In preparation for encountering museum artifacts, students listened to thirteen-minute podcasts drawn

16 Grant Wiggins, “Assessment: Authenticity, Context, and Validity,” *The Phi Delta Kappan* 75, no. 3 (1993): 200-208, 210-214, <https://eric.ed.gov/?id=EJ472587>.

17 Karee E. Dunn and Sean W. Mulvenon, “A Critical Review of Research on Formative Assessments: The Limited Scientific Evidence of the Impact Formative Assessments in Education,” *Practical Assessment, Research, and Evaluation* 14 (2009): <https://doi.org/10.7275/jg4h-rb87>.

18 Robert Bain and Kirsten E. Ellenbogen, “Placing Objects Within Disciplinary Perspectives: Examples from History and Science,” in *Perspectives on Object-Centered Learning in Museums*, ed. Scott G. Paris (New York: Routledge, 2002), 153-169, <https://doi.org/10.4324/9781410604132>.

19 Arabella Sharp, Linda Thomson, Helen J. Chatterjee and Leonie Hannan, “The Value of Object-Based Learning within and between Higher Education Disciplines,” in *Engaging the Senses: Object-Based Learning in Higher Education*, eds. Helen J. Chatterjee and Leonie Hannan (London: Routledge, 2016), 97.

20 David Sherrin, *Authentic Assessment in Social Studies: A Guide to Keeping it Real* (New York: Eye on Education, 2020); Christopher David Elisara, *Authentic assessment: An ethnography of a ninth-grade world history class* (PhD diss., Biola University, 1998).

21 Elaine Heumann Gurian, “What Is the Object of This Exercise? A Meandering Exploration of the Many Meanings of Objects in Museums,” *Daedalus* 128, no. 3 (Summer 1999): 165.

from the well-known *A History of the World in 100 Objects* series (AHOW).²² This podcast series spans the chronological, geographic, social, and topical spectrum. Students might learn about a chopping tool from Olduvai Gorge, the *Epic of Gilgamesh* Flood Tablet, the currency used in the early Umayyad caliphate, or a brass plaque showing the *oba* (king) of the Kingdom of Benin with Portuguese traders. Students can investigate historical subfields (e.g., political, religious, gender, and economic history), compare types of historical evidence (e.g., coins, maps, statues, household goods), and follow greater themes across varied times and places (e.g., human relations with the gods, with rulers, involvement in trade). All the artifacts profiled in these podcasts are on display at the British Museum in London, and the podcasts often remind listeners of colonial legacies, offering another useful avenue of approach.²³

The podcasts' central attraction to a World History class is how they model the contextualization of artifacts using close observation, secondary source research, and expert commentary. The series host, Neil MacGregor, formerly the director of the British Museum (2002-2015), begins each podcast with an introduction designed to connect the artifact or the podcast's theme to twenty-first-century concerns or experience. For example, in the *Ceremonial Ballgame Belt* podcast the Mesoamerican ballgame is compared to the global enthusiasm for professional soccer through religious and social motifs.²⁴ After this introduction, MacGregor provides a detailed description of the artifact in order to place it in the listener's mind's eye. The remainder of the podcast is dedicated to exploring how and by whom the artifact was made and used, its original purpose and its meaning to historians. The last two discussions are the most complex part of the podcast and involve commentary by two named experts. They contribute historical and sociological perspectives on the artifact, its community of origin, and its meaning from a modern perspective.

Although the series originated as a radio program, when posted online it became an open-access secondary source, produced by one of the premiere centers of World History research.²⁵ Since 2010 the podcasts have been downloaded millions of times and become reliable classroom resources.²⁶ The series has also inspired teachers to build classes around creating histories through object collection and contextualization. At Yukon College (Whitehorse, Yukon, Canada), Amanda Graham's students in Northern Studies 200: Research in the North combined thematic investigation with research methods practice by presenting *A History of the Yukon in 100 Objects*.²⁷ At the University of Central Florida (Orlando, FL, USA), across several semesters Robert Cassanello's Historical Documentary and New Media class created a fifty-episode series of video-podcasts telling *A History of Central Florida* through artifacts. The series established close contacts with local museums and academics that

22 *A History of the World in 100 Objects* podcasts (British Museum and British Broadcasting Corporation, 2010), <https://www.bbc.co.uk/programmes/b00nrt2>. Transcripts are also available online and in book format; Neil MacGregor, *A History of the World in 100 Objects* (New York: Viking, 2011). For a review of the series, see Mary Beard, "A History of the World in 100 Objects by Neil MacGregor – review," *The Guardian* (November 12, 2010), <https://www.theguardian.com/books/2010/nov/13/history-world-hundred-objects-review>.

23 Acknowledging and critiquing the British Museum's hegemonic approach to the past is an important part of using this series.

24 "Ceremonial Ballgame Belt," *A History of the World in 100 Objects* (British Museum and BBC, May 27, 2010), <https://www.bbc.co.uk/programmes/b00sfgx4>.

25 Elizabeth Lambourn, "Review Article: *A history of the world in 100 objects*," *Journal of Global History* 6, no. 3 (November 2011): 532-533, doi:10.1017/S1740022811000441.

26 Britain's Department of Education partnered with the British Museum and a hundred other museums across the United Kingdom to create clusters of free, online materials, including object images, object information, comparative objects, video clips, local places to visit, and activity suggestions that teachers could use in their classrooms. Each artifact page offers the following subpages: "About the object," "A bigger picture," "Teaching ideas," and "For the classroom." A useful example is the "Eye of Horus amulet," http://teachinghistory100.org/objects/eye_of_horus_amulet.

27 In an interview Graham explained the course activities and assessments; Andrea Eidinger, *Digital Pedagogy: A History of the Yukon in 100 Objects* (April 25, 2017), <https://www.unwrittenhistories.com/digital-pedagogy-a-history-of-the-yukon-in-100-objects/>. Access the resulting course blog here: <https://100yobjects.wordpress.com>.

helped to contextualize histories that give voices to “overlooked and underrepresented” peoples, especially lost native communities and other minority groups.²⁸

Podcasts are an example of authentic assessment that has increasingly become more common in university courses over the past three decades.²⁹ In the same way that a curator faces a collection of artifacts and must determine which has public interest, an accessible character, and might be easily researched, a student learns just as much from the research process as from the project’s content. The eight essential elements of an authentic performance assessment include “challenge, performance or product (outcome), transfer of knowledge, metacognition, accuracy, fidelity, discussion and collaboration.”³⁰ Unlike other indirect or conventional assessments that require students to produce information as a proxy for intellectual performance, authentic assessments require the student to construct a crafted outcome or product that would be acceptable in the targeted profession.³¹ As the assessment’s professional relevance is a key component, in the case of an introductory history course, a podcast that would describe and contextualize an artifact for a museum visitor would be eminently appropriate.³² University museums often draw volunteer docents and collection interns from this sort of class, and many Public History students complete their internships in museums, libraries, or archives, making this application of skill, knowledge, and disposition a useful preparation.

Podcast-based Activities and Authentic Assessments

When incorporated as classroom activities, listening to and dissecting podcasts can assist students in learning about object description and comparison, secondary source selection, contextualization and narrative design. The discussions that follow detail a series of activities that use artifact-focused podcasts to practice historical thinking, often in small groups or as joint productive activities. As Alison Burke has shown, small group scaffolding activities that foster conversation between students stimulate creativity, improve memory, yield greater satisfaction, and support the performance of “many more competencies than [students could perform] independently.”³³ The first activity accustoms students to the podcast’s narrative structure, which encodes its research and analysis. The second and third activities scaffold the student’s own research process. Usually these activities occur after the class has visited a local museum or a museum’s online collection database to choose a focal artifact. While understanding this object is the core purpose of the second and third activities, along the way students learn how to select scholarly research sources and construct an analytical discussion. The final step, crafting a contextualized artifact-centric historical narrative (*i.e.*, the podcast), brings all these activities together. By this point students should understand how the podcast presents the historian’s work and be able to justify their historical process in addition to explaining what they discovered through that process.

28 Robert Cassanello, *A History of Central Florida*, podcast video series (November 18, 2013-June 11, 2015), <http://stars.library.ucf.edu/ahistoryofcentralflorida/>.

29 Sadie Bergen, “History on the Download: Podcasting the Past,” *Perspectives on History* (February 29, 2016), <https://www.historians.org/publications-and-directories/perspectives-on-history/march-2016/history-on-the-download-podcasting-the-past>.

30 Kevin Ashford-Rowe, J. Herrington, and C. Brown, “Establishing the critical elements that determine authentic assessment,” *Assessment and Evaluation in Higher Education* 39, no. 2 (2014), 206, <https://doi.org/10.1080/02602938.2013.819566>.

31 G. Brown and M. Craig, “Assessment of authentic learning” (2004), 2, <http://www.coe.missouri.edu/~vlib/glenn.michelle’s.stuff/GLEN3MIC>; Doug A. Archbald and Fred M. Newmann, *Beyond Standardized Testing: Assessing Authentic Academic Achievement in Secondary School* (Reston, VA: National Association of Secondary School Principals, 1988), 33.

32 John Hattie, John Biggs and Nola Purdie, “Effects of Learning Skills Interventions on Student Learning: A Meta-Analysis,” *Review of Educational Research* 66, no. 2 (1996): 29, <https://doi.org/10.3102/00346543066002099>.

33 Alison Burke, “Group Work: How to Use Groups Effectively,” *The Journal of Effective Teaching* 11, no. 2 (2011): 88, <https://eric.ed.gov/?id=EJ1092109>; Roland G. Tharp and Ronald Gallimore, *Rousing Minds to Life: Teaching, Learning and Schooling in Social Context* (Cambridge: Cambridge University Press, 1988), 124, 132; Bain and Ellenbogen, “Placing Objects Within Disciplinary Perspectives,” 163.

Preliminary Activity: Diagramming Podcasts

The first time students listen to an *AHOW* podcast they will likely listen for content and the argument and structure will be lost under the more prominent names, dates, and description. After listening to the podcast individually, students can draw a graphic organizer to systematize the information presented, perhaps using an annotated webbing model or an adapted main-idea and details model. This activity practices categorizing information, identifying argument, and revealing the podcast's phased structure.³⁴ As Scott has noted "graphic organizers are visual representations of mental maps using important skills such as sequencing, comparing, contrasting, and classifying." Marzano *et al.* have lamented that graphic organizers are effective, but woefully underused learning tools.³⁵ Using the graphic organizer as a scaffolding tool, students can identify information and assign understanding to it or record and keep it in a holding pattern to be explored by the class.

Some instructors might suggest that students listen to the podcast and then record information next to pre-selected classifiers, like "Sourcing information," "Object description," "Rare or common artifact," "Daily or extraordinary use," "Named commentators." While most students are routinely able to annotate three-quarters or more of the classifiers, this activity is too much like a fill-in-the-blank worksheet. By asking students to articulate their own classifiers for the information they hear, graphic organizers require a deeper cognitive engagement and reveal more about students' ability to firstly identify and categorize information, and secondly see the podcast's model structure. After students have created this graphic organizer, as a class they can discuss the types of information presented. As students contribute types of information, the instructor can ask about the podcast's phases, illustrating a progression from basic sourcing information, through description, to contextualization, and modern meaning. By charting this progression on the blackboard, the class can determine the point at which new sources are incorporated. This will allow students to consider the limit of artifacts and the role of secondary source research.³⁶

Activity 1: Comparing Similar Artifacts

As Hannan *et al.* have noted, "[f]acing students with an unknown object and asking them to deduce what they can from its physical form, encourages just the sort of analysing and hypothesizing that are the life force of scholarly enquiry."³⁷ Once students have chosen an artifact to research, they should conduct a close examination of how an artifact looks, feels, and sounds.³⁸ Some of this description, like the artifact's sound, will be projected as most displayed artifacts are behind glass. This initial examination allows students to draw precise elementary conclusions (*e.g.*, worn paint equaled great use or exposure to the elements). Asking students to move from this very focused analysis to identifying broad characteristics about the artifact's society of origin, geographic location, and cultural importance, is often unsatisfying. Cultural group characteristics often evade any connection with profiled artifacts, which make it particularly challenging for students, who are then more likely to collect information that has little connection with their artifact. The following staged activities adapts an object-based pedagogy to guide students through an extended artifact analysis process in order to delineate an historical narrative before searching for secondary sources. Through the activity, students develop a deeper understanding of their artifact and thus are less likely to fill their podcasts with unrelated information about the artifact's society of origin, since they can construct more focused analytical narratives. By employing sourcing and close

34 This can be done as a whole-class activity led by the instructor, in small groups, or as an individual activity.

35 John Scott, "Authentic Assessment Tools," *Educational Resource Information Center* (2003), 39-40; Robert J. Marzano, Debra J. Pickering and Jane E. Pollack, *Classroom Instruction that Works: Research-based Strategies for Increasing Student Achievement* (Alexandria, VA: Association for Supervision and Curriculum Development, 2001), 75-78.

36 An extension to this discussion could involve students in small groups identifying potential secondary sources to contextualize the podcast's artifact.

37 Hannan, Duhs and Chatterjee, "Object-Based Learning," 165.

38 Students could complete this task during the museum visit.

observation methods students develop linkages between artifacts, chart chronologies, and map practices that produce important conclusions.

In Activity 1 students conduct internet searches for two comparative artifacts from public museum websites. Each comparative artifact should come from a different museum, which will increase the student's experience with collection search engines, knowledge of this type of institution, and the chance of finding similar artifacts. Each artifact should have clear sourcing information (*i.e.*, date, creator, geographic origin, type of artifact) that parallels the focal artifact. As the handout in Appendix 1 shows, students record their original chosen artifact and the three comparative artifacts, along with sourcing information for each one. The sourcing information helps students envision the chronological and geographic reach of their artifact. For example, in investigating Pre-Columbian artifacts students might think that Central America is quite compact, and then learn that similar artifacts appear in modern Belize and Costa Rica across a three-hundred-year period. This discovery of similar artifacts across a larger area and timeframe spurs students to wonder how technology, materials, and artistic style spread. By collecting similar artifacts, and comparing them across time, geography, theme, materials or technology, students can narrow their narrative focus and conduct more profitable secondary source research.

After identifying useful comparative artifacts and recording each artifact's sourcing information, students must offer a short explanation, indicating how the artifacts are comparable and what that suggests about the time and place that they originated from. This requirement builds in an opportunity for analysis and reflection on historical evidence that is usefully open-ended. Explanations might run from the simple (*e.g.*, comparing size or material) to the more nuanced (*e.g.*, similar artifacts made of different materials indicate differences in available supplies or the owner's class). These explanations are unstructured, which allows students to develop their own research or narrative direction. In addition, this simple search for comparative artifacts helps students to answer questions about mundane versus rare objects, gender or class-differentiated ownership, and the contemporary meaning of materials and iconography. This reflection should also show how students are beginning to formulate their podcast's emerging historical narrative, and indicate the direction of their next activity.

Activity 2: Comparing Complementary Artifacts

In the second artifact-focused activity students conduct searches for two complementary artifacts from public museum websites.³⁹ Unlike the previous search, these artifacts are not meant to replicate the chosen object, but shed light on the environment from which it originated. In many cases, this is challenging as artifacts might seem straight forward in their use. However, the *AHOW Ceremonial Ballgame Belt* podcast offers a good example of how this activity might be done.⁴⁰ The podcast describes a sport that students are unlikely to have seen played, but which was central to the Mayan worldview. As the ballgame has left many related artifacts (*e.g.*, Mesoamerican ballgame courts, player figurines, reliefs depicting the game, and equipment), it offers many opportunities to consider how other artifacts can reveal social practices and beliefs related to a single artifact (*i.e.*, the ballgame belt). Sport history is also a compelling topic even for reluctant student-historians.

As the handout in Appendix 2 shows, in Activity 2 students follow a process that is almost identical to the first activity. Students choose two artifacts and record each artifact's sourcing information and website origin. For example, a student who started with a ballgame belt might chose a tumbler with a ballgame scene, a model of the game with figurines, or a court marker that also depicts a player.⁴¹ These complementary artifacts show

39 Students should start with the museum's online collection search page, which is usually accessible from the museum's "Welcome" page via a pull-down menu.

40 Instructors could also use this podcast as a small group activity to practice artifact-based search and analysis before asking students to do this individually.

41 For example: "Cylindrical Vessel with Ballgame Scene (682-701 CE)," *Dallas Museum of Art*, <https://collections.dma.org/artwork/5289667>; "Ball-Court Model (200 B.C.-A.D. 500)," *The Metropolitan Museum of Art*, <https://www.metmuseum.org/art/collection/search/656346>; "Jaina-style Figurine of a Female Ballplayer (A.D. 600-900)," *Denver Art Museum*, <https://www.denverartmuseum.org/en/object/1985.635>; "Ballcourt Marker (circa 550-850)," *North Carolina Art Museum*,

contemporary visions of how this game was played, where it was played, and what it meant to the players and observers. While artifacts from museum websites are ideal, as they provide more reliable and object-focused detail, some students might choose spaces as contextualizing artifacts. The ballgame courts at Chichén Itzá in Mexico or at Chihuatan in El Salvador are examples of appropriate contextualizing spaces that offer valuable information about Mesoamerican ballgame artifact origins.

After choosing complementary artifacts that provide context, in another short explanation students justify their choices by identifying the artifacts' relationship to the original artifact and articulating what new understanding they bring. This requires students to determine what complementary artifacts reveal about the original artifact and the society they are studying, which demands more analysis and careful articulation. In grappling with the relationship between artifacts, students build an evidence-based discussion that fits nicely into their podcast narrative. In sum, this activity demands that students navigate at least two museum websites, pursue a low-level categorization task (identify related artifacts), and then complete a higher-order analysis task (determining how the artifacts reveal more about the ballgame and its place in society), while beginning to write their podcast narrative.

Activity 3: Contextualizing with Secondary Sources

The preceding in-class activities break down the process that a curator would follow when conducting artifact-focused research. On separate class days students can move from one comparative step to another, and eventually to finding reliable secondary sources, as the next activity describes. This is one of the most challenging aspects of the historian's work as it appears simple (*i.e.*, providing information), but actually requires content knowledge and scholarly discernment that curators and historians build over years of practice. When students seek scholarly secondary sources on their own they often turn to online sources that are incompatible with secondary or post-secondary-level research, including encyclopedias, university course websites, and the Khan Academy.⁴² While these sources are attractive and accessible, they are inconsistent with the peer-reviewed sources that professional researchers would use to contextualize an artifact for the public.

Activity 3 reviews how to select scholarly secondary sources and ensures that students have useful contextualizing materials to support their artifact analysis. Some instructors may present the activity as the focal point of a class devoted to discussing what scholarly secondary sources are, how they differ from general audience sources, and what this type of source looks like in the discipline of History. Connected with this discussion is how to use and identify sources in historical writing. Many students in introductory classes do not know that they should use a clause to introduce a quotation or what that might look like when written down. Many more students worry about inadvertently committing plagiarism or how to cite their sources correctly. These fears are a good reason for instructors to provide clear parameters about what a reliable source is for a History podcast and offer an opportunity to practice choosing one.

In addition, Activity 3 asks students to conduct an online search for a scholarly secondary source that will provide useful information contextualizing the focal artifact. As the handout in Appendix 3 shows, this activity has three parts of differing complexity: finding a secondary source, writing the citation, and justifying the source's utility. Instructors may wish to have students complete the assignment individually, but conduct their work in small groups so that they can pool their knowledge and help each other. Before dividing the class into groups, the instructor should define a scholarly secondary source and provide an example for the class. For an Introductory

<https://learn.ncartmuseum.org/artwork/ball-court-marker/>; "Mold-Impressed Tripod Vessel Depicting a Ballgame Scene (A.D. 400-700)," *Denver Art Museum*, <https://www.denverartmuseum.org/en/object/1971.417>.

⁴² As many students have encountered Khan Academy videos in middle or secondary school classrooms, they assume that they are equally appropriate for post-secondary-level research. *Ancient History Encyclopedia* is particularly attractive to students as it provides detailed information about rulers, deities, empires, locations, and artifacts, while borrowing images, maps, and timelines from other web sources; www.ancient.edu. Unfortunately, neither of these sources provide the historical meta-discourse that scholarly secondary sources should.

World History class, a reliable supply is the more than one thousand essays produced for the Metropolitan Museum of Art's *Heilbrunn Timeline of Art History*.⁴³ These 500 to 1500 word essays span the centuries and the globe. Their focus on types of artifacts, activities, materials, artistic styles, or geographic areas, ably fulfills Bain and Ellenbogen's hope that "technology might extend and support learners' experiences with objects."⁴⁴ Museum curators wrote these essays, which use sample artifacts from the museum's collection to support the discussion, and provide a "Further Reading" list. Curators continue to write new essays and periodically old essays are updated. Asking the class as a group to justify one of these essays as scholarly would help identify the characteristics that students should look for in their own searches.

Following this whole group activity, in small groups of three or four people, students should discuss the previous two activities in which they conducted online searches for artifacts. Did they encounter artifact pages written by museum curators that provided substantial detail or contextual material? Did they encounter introductory essays to museum exhibits or articles in museum journals that present background information on the time period, specific culture or practice, or type of artifact under investigation? If not, students should discuss the results of a new online search and compare their findings with the initial class discussion of how to identify a reliable and scholarly source. Large, so-called encyclopedic museums, like the Metropolitan Museum of Art, the Boston Museum of Fine Arts, and the Denver Art Museum, usually have more resources available for writing detailed artifact pages. Similarly, museums that have extensive archeological investigations produce short artifact-based reports, like the Penn Museum's *Expedition Magazine*.⁴⁵ Students may also find that scholars produce reliable commentary in video format, like the *Smarthistory* series.⁴⁶ Identifying the similarities between these secondary sources will also help students understand how scholars convey reliable research to the public.

In addition to finding suitable sources, the activity asks students to practice employing a citation system. The system introduced should be the same system that students are expected to use in other course assignments. Instructors should provide students with a link to the preferred style guide (e.g., Chicago Manual of Style's online *Citation Quick Guide*),⁴⁷ which provides sample citations (both notes and bibliographic formats) for all types of sources. In small groups students can choose the appropriate format and produce a footnote for their chosen secondary source. This activity encourages students to practice the format that they will use in their podcast scripts when providing references supporting quotations and other borrowed information. Instructors can also discuss the difference between in-text citation and footnotes or endnotes, and a works cited list or a bibliography. While this sounds like a simple enough task, it requires students to know the type of source they have chosen (e.g., journal article, website, video, monograph, etc.), find it listed in the online guide, and match the information in the citation model to the bibliographic information provided by their secondary source. The latter task is a challenge for most students who are not familiar with the layout of online scholarly sources and their subtle but important differences (e.g., webpage title and website title, article title and journal title, volume and issue number). Introductory courses rarely involve using more than two or three sources at a time, leading students to believe that in-text citations or no citations at all is normal practice in History courses. This short exercise allows instructors to cover foundational issues, including selecting scholarly secondary sources, identifying the type of secondary source, and producing correct citations, that are important parts of a research product. Moreover, such an explicit exercise ensures that students can draw on their corrected work when they write their podcast script.

43 *Heilbrunn Timeline of Art History*, The Metropolitan Museum of Art (New York, NY), <https://www.metmuseum.org/toah/>.

44 Bain and Ellenbogen, "Placing Objects Within Disciplinary Perspectives," 164.

45 *Expedition Magazine* articles follow the museum's collection of artifacts, its archeologists, and their global research projects closely, to provide greater depth to its displays and to describe its history and its ongoing excavations. The articles are short (four to seven pages), open-access, specific in their focus on artifacts and contextualizing research, and provide suggestions for further scholarly reading. *Expedition Magazine*, The Penn Museum (Philadelphia, PA), <https://www.penn.museum/sites/expedition/>.

46 *Smarthistory*, The Center for Public Art History, <https://www.youtube.com/user/smarthistoryvideos/featured>.

47 *The Chicago Manual of Style Online*, 17th edition, https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-1.html.

Activity 3's final requirement is that students justify their choice of secondary source. After reading or watching the source, students identify the information provided and evaluate its utility. This requirement demands that students see the secondary source as a whole instead of a mass of detail, understand the contextual information that they lack, and articulate the direction of their podcast narrative. At this point students should realize how much more research they need and in which areas, and how far along in the research process they have come.

Writing the Podcast

What remains for students to do is to bring the knowledge and products of the preceding activities together in a single narrative. Diagramming *AHOW* podcasts helps students see how description, comparison, and contextualization processes together create a full understanding of an artifact. Comparing similar artifacts identifies what is common and variable about the chosen artifact, while related artifacts reveal the larger society that produced the artifact. Secondary sources offer contextual detail allowing students to explore gender, professional, or economic groups, religious beliefs or military practices, body modification, adornment and funerary practices, and many other issues. These activities chart an explicit process that guides students from artifact choice through the research process, and emphasizes building an evidence-based narrative, as other History professionals would do.

Appendix 4 offers a sample evaluation sheet that lays out the requirements for a detailed artifact analysis that grows out of artifact comparisons and is contextualized with scholarly secondary sources. Instructors should provide this document to students who can use it as a guide to writing their narrative. The evaluation sheet begins with basic assignment requirements, which ensures that students know the podcast's expected chronological and geographic parameters, minimum running-time, and need for a script. (The script ensures student planning and facilitates quotations and citations.) The rest of the evaluation sheet acts as a path from an introduction (*i.e.*, the artifact's sourcing information and full description) through a broad comparison of artifacts situating it in its original environment, to more specific questions about the artifact's use and user, and concludes with reflections on the artifact's limitations and what big ideas it reveals about the past. These requirements are designed to present the artifact in as full a fashion as possible and according to the historian's best practice, while also capturing the work that students did across successive preparatory activities. Thus, students illustrate their understanding of the artifact's mundane or extraordinary character via their comparative work, and draw quotations from their scholarly secondary sources, mimicking the *AHOW*'s expert guests.

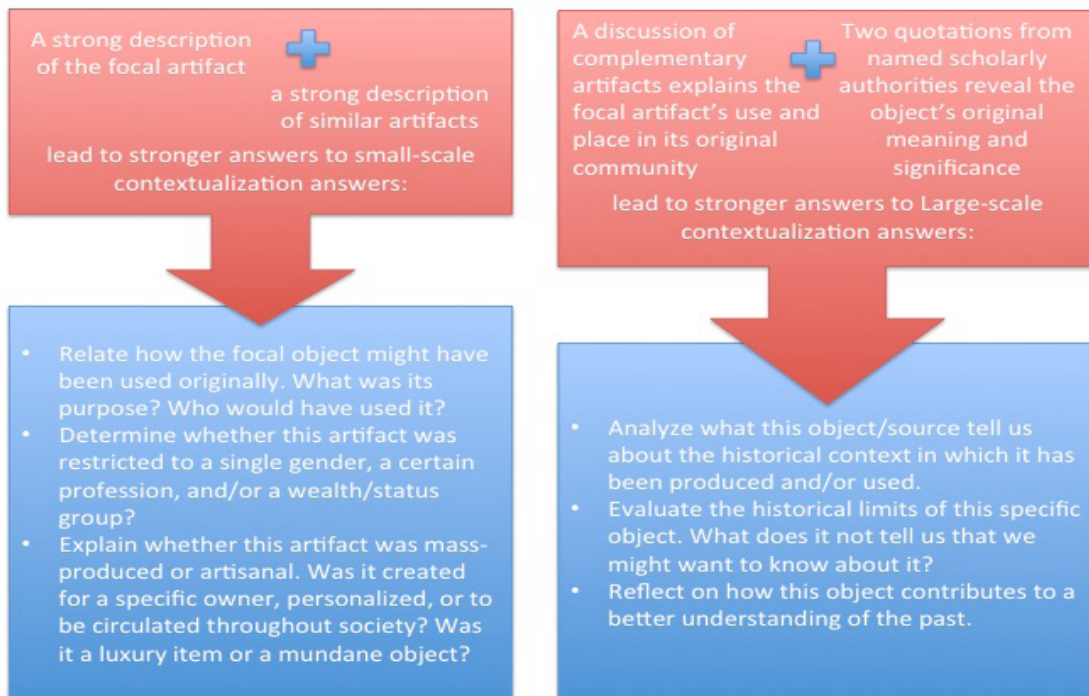


Figure 1: Progression of artifact activities to evaluation sheet questions

As already noted, prior to the introduction of these activities, students struggled with contextualization. Students found it difficult to say anything meaningful about their artifact as a representation of an artifact type. Their struggle grew from not knowing how to gain knowledge about their artifacts. Introducing scaffolding activities helped students develop a knowledge base that led incrementally to answering more complicated questions, initially about their focal artifact and later about the society that it came from. Figure 1 shows how the scaffolding activities lead to knowledge that fulfills specific requirements on the podcast evaluation sheet. Activity 1 requires students to closely examine their focal artifact and other similar artifacts. Their written response involves describing each artifact and identifying similarities and differences. This work with a sample of similar artifacts prepares students to fulfill the artifact-focused requirements listed in the evaluation sheet. This experience creates knowledge of small-scale contextualization that expands the student's understanding of the artifact as a type and as a representation of that type. Applying Bloom's revised taxonomy, these activities incorporate lower and middle-order cognitive domain learning outcomes that ask students to understand the artifact's characteristics, analyze a sample of artifacts, and apply ideas about materials, use, and production techniques, as well as gender and class norms.

Activities 2 and 3 are more complicated and take students beyond the artifact into its original society and then the historian's investigation. The discussion of complementary artifacts demands that students select a sample of new artifacts and analyze connections between them in order to produce new knowledge about their shared environment and its users. Following this, students evaluate their knowledge of the artifact and its community and seek scholarly secondary sources to fill in the gaps. Information drawn from the secondary sources, which is signaled by scholarly quotations, deepens analysis, but it also helps students think about the historian's process. The evaluation sheet asks students to reflect on what they know, and determine how much of their knowledge comes from the artifact and from scholarly research. Reflecting on and categorizing their knowledge helps students realize how the historian acquires information. For example, students may realize that they are more likely to encounter high-value grave goods that were intentionally preserved in burials rather than mundane domestic objects that wore out. This realization can establish connections between periods (e.g., royal Egyptian and Mayan burials), even as it leads to a larger awareness of historians' uneven knowledge of the past. Finally, these activities

require higher-order cognitive domain learning outcomes that ask students to manipulate their knowledge to develop a new understanding that extends beyond the focal artifact. Indeed, the podcast itself fulfills the highest-order learning outcome, which requires students to create a new knowledge product that is distinct but emerges from the scaffolding activities' results.

Methods

To track the impact of this staged process, this article compares student work from six semesters of an Introductory World History class. In each semester, the class visited a local university museum, where each student chose an artifact and completed an initial close observation note-taking activity that mirrored questions about the artifact in the podcast evaluation sheet.⁴⁸ Semesters 1 and 2 provide a control sample of 169 podcasts, showing student work before the introduction of the new activities. Students moved independently from choice of artifact to research and on to the narrative-writing stage. Semester 3 provides an intermediary sample of 75 podcasts. In this semester, students diagrammed podcasts individually and worked on Activities 1, 2, and 3 in small groups and as extra-credit assignments. Semesters 4, 5, and 6 provide a transformed sample of 288 podcasts in which students completed the staged assignments individually (but usually in conversation with others) and afterward submitted a reflection survey. In these later semesters, students also diagrammed at least one *AHOW* podcast either as an in-class activity or as a homework assignment before beginning their podcast research.

In Semesters 4, 5, and 6, in the class period after visiting the museum, the instructor introduced students to museum collection search engines and discussed how comparing artifacts could provide contextual knowledge. The instructor provided suggestions of museums with large collections and easy to use collection searches.⁴⁹ Students individually began and completed Activity 1 in the classroom. In the same class session, students began Activity 3, which they completed individually as homework.⁵⁰ In the classroom, the instructor discussed how secondary sources could provide useful information about artifacts' materials, decoration, use, significance, and place in community culture. The class also discussed the usefulness of museum websites, journal articles, and academic search engines and databases. The class explored how to identify a scholarly source by identifying footnotes, scholarly publishers and journal articles. Submitted assignments were graded within two to four days to ensure a continued in-class conversation. At all stages, if students chose inappropriate or unusually challenging artifacts or secondary sources, the instructor offered alternate suggestions.

After students received the instructor's feedback, they had two to three weeks to write and record their podcast narrative. As Appendix 4 shows, the instructor evaluated podcasts using a Satisfactory / Unsatisfactory scale for objective requirements and a five-point scale of Exceptional / Proficient / Satisfactory / Unsatisfactory / Poor for subjective requirements. This five-point scale roughly corresponds to the letter-grade scale. An analysis of these evaluation sheets tracked podcast scores over the six-semester period on specific requirements, including close description of artifacts, comparative artifact discussion, and contextualization. This examination led to graphing the relationship between comparative artifact discussions and contextualization scores and secondary source usage. An analysis of podcast scripts added further information about trends in use of secondary sources, specifically the scholarly character and type of research sources, as well as how students integrated material from those sources into their scripts (*e.g.*, named quotations, paraphrasing, and use of footnotes).

Following the podcast submission students were invited to complete an online survey through the course management website. As Appendix 5 shows, the survey included qualitative and quantitative questions designed to elicit student perspectives on artifact-based learning and the podcast as an assessment tool. Students had one week in which to complete the survey and received a small number of points. Survey responses were analyzed to

⁴⁸ From the course's outset, the podcast evaluation sheet was available to students as part of the course syllabus.

⁴⁹ Foremost among these suggestions were The Metropolitan Museum of Art, the British Museum, the Getty Museum, the Art Institute of Chicago, the Denver Art Museum, and the Museum of Fine Arts in Boston.

⁵⁰ In-class work on each podcast was limited to one class period to visit the museum and one class period to start the scaffolding activities.

provide experiential narratives that usefully frame the student learning process.

Analysis

Creating podcasts guided students to develop knowledge on two levels. Initially students explored a specific artifact as a representative of a type of tool, and later that artifact became a portal for investigating the society that used it. To determine whether Activity 1 led to more of the first type of understanding, the instructor used the evaluation sheet's three artifact-focused question clusters as a proxy measure.⁵¹ As Figure 2 shows, podcasts with an explicit comparative discussion of artifacts are associated with higher scores on the three artifact-focused question clusters. Analyzing a single semester reveals how impactful scaffolding activities can be. In Semester 6, 75 out of 98 podcasts (76.5%) included a comparison of artifacts, which was generally based on Activity 1. In this sample between 74.7% and 61.3% of podcasts scored Exceptional or Proficient on these question clusters.⁵² In contrast, the 23 podcasts that did not include a comparison of artifacts are associated with less consistently high scores on the three artifact-focused question clusters. In this smaller sample between 78.3% and 43.5% of podcasts scored Exceptional or Proficient on these question clusters.⁵³

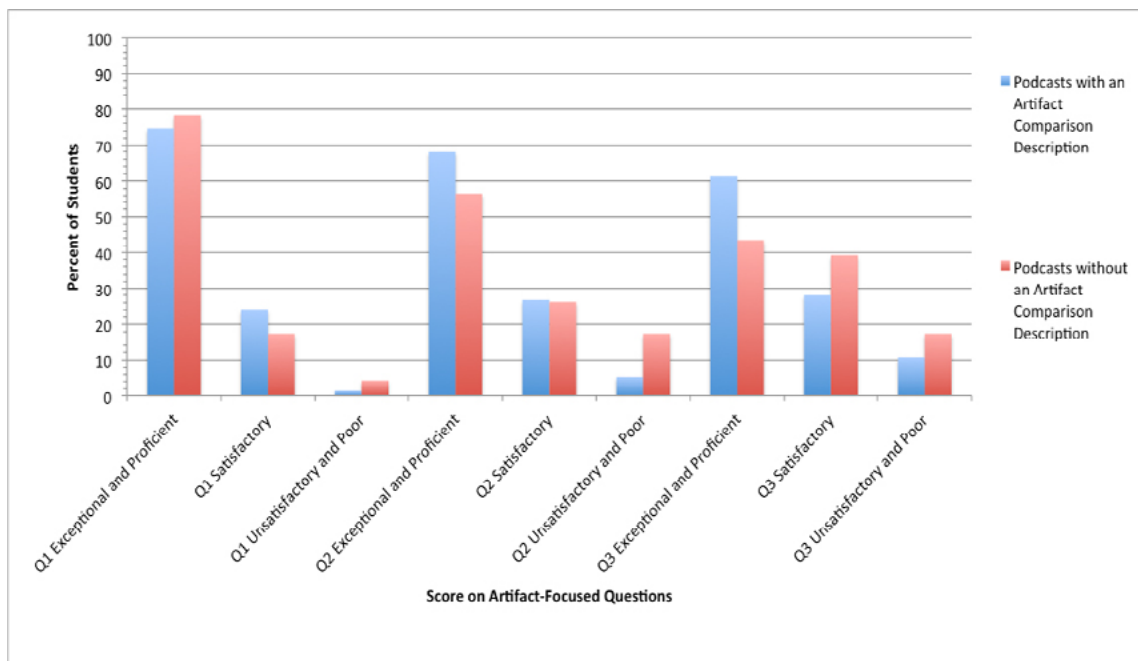


Figure 2: A graph comparing podcast scores on artifact-focused contextualizing questions in Semester 6

To determine whether completing the scaffolded activities improved students' ability to illuminate past societies through artifacts, the instructor used the evaluation sheet's three contextualization questions as a proxy measure. These three questions weighed students' ability to reflect on a society's skills and values through their artifact, as well as the limits of their knowledge, and provide a larger conclusion about artifacts' contribution to historical understanding. Undoubtedly, these are more complex questions than the artifact-focused questions. Moreover,

51 These questions were: 1) Detailed description of how the artifact might have been used originally, its purposes, and who would have used this artifact 2) Was this artifact restricted to use by a single gender, a certain profession, and/or a wealth/status group? 3) Was this artifact mass-produced or artisanal? Created for a specific owner, personalized, or to be circulated throughout society? A luxury item or a mundane object?

52 On Question 1, 74.7% of podcasts with a comparative artifact discussion scored Exceptional or Proficient, while 68% and 61.3% did so on Questions 2 and 3. On average across these three question clusters, 68% of podcasts scored Exceptional or Proficient.

53 On Question 1, 78.3% of podcasts without a comparative artifact discussion scored Exceptional or Proficient, while 56.5% and 43.5% did so on Questions 2 and 3. On average across these three question clusters, 59.4% of podcasts scored Exceptional or Proficient.

articulating the contextualized meaning of artifacts depends on students engaging in artifact comparisons and secondary source research, which Activities 1-3 required.⁵⁴ Tracking podcast scores across all six semesters shows improvement on two out of three contextualization questions. Figure 3 shows a substantial rise in podcasts scoring Exceptional and Proficient on Questions 1 and 3 in Semesters 3 through 6, but negligible change on Question 2.⁵⁵ In Semester 3 on Question 1, another 25.4% of the podcasts beyond levels seen in Semesters 1 and 2 scored either Proficient or Exceptional. In Semesters 4, 5, and 6, this change remained approximately the same, with a further 23.6% of the podcasts beyond levels seen in Semesters 1 and 2 scoring either Proficient or Exceptional. Question 2 continued to be a challenge, with podcasts scoring at about the same levels as in Semesters 1 and 2, or at a lower level.

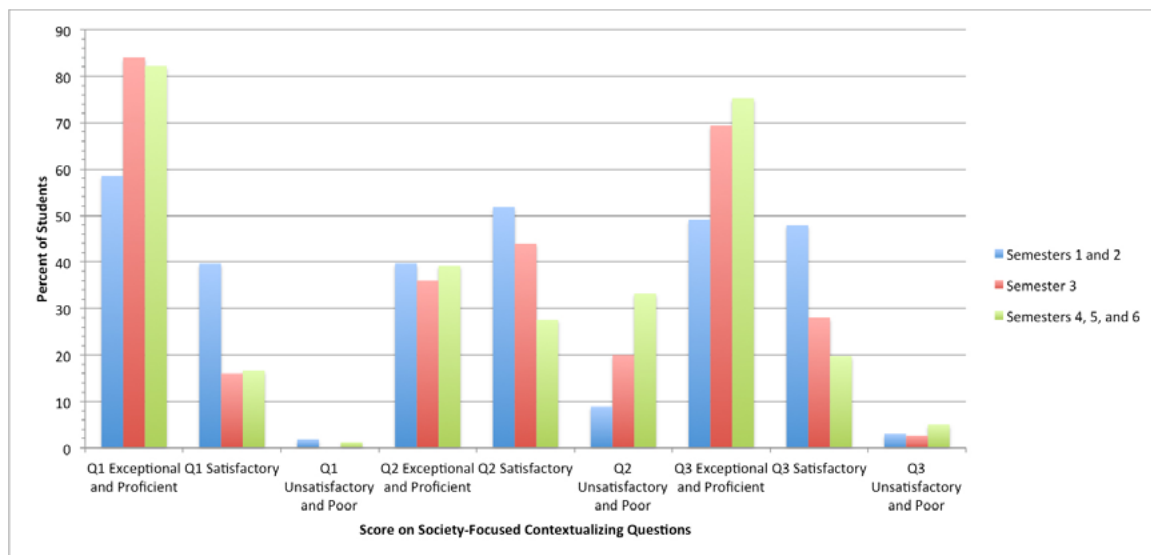


Figure 3: A graph showing podcast scores on society-focused contextualizing questions, Semesters 1 to 6

To determine whether completing Activities 1 and 2 had an impact on students' use of secondary sources, the instructor looked for an association between artifact comparisons and using scholarly secondary sources. Hypothetically a greater experience with museum websites might lead students to use more museum-sponsored secondary sources and fewer non-scholarly sources. Table 1 presents the percentage of students who described comparative artifacts alongside an examination of students' secondary source types (*i.e.*, museum websites, scholarly sources, non-scholarly sources). This table shows several developments across Semesters 1 to 6. First, there was a substantial rise in the inclusion of a comparative artifact discussion from Semesters 1 and 2 to Semesters 4, 5 and 6. In Semesters 1 and 2, only 12 and 19.4% of students included a comparative artifact discussion. This percentage rose by 12.7 percentage points in Semester 3 and continued to rise dramatically in later semesters. From Semester 4, when students began to work on the activities individually, to Semester 6, the rate of including a discussion of comparison artifacts rose by 25 percentage points and then a further 18.2 percentage points. In Semester 6 more than five times the number of podcasts included a comparative artifact discussion than in Semester 1. This change suggests that progressively students spent more time searching museum collections and developing knowledge based on comparing artifacts.

As comparative artifact discussions increased, Table 1 shows an even greater increase in the use of scholarly secondary sources. In Semesters 1 and 2 between 42.7% and 71% of podcasts drew on at least one scholarly research source. With the introduction of the scaffolding activities to all students in Semester 4, this percentage

⁵⁴ These questions were: 1) What does this artifact tell us about the historical context in which it has been produced and/or used? 2) What are the historical limits of this specific artifact? What does it not tell us that we might want to know about it? 3) How does this artifact contribute to a better understanding of the past?

⁵⁵ From Semesters 1 and 2 to Semester 3 scores on Question 1 rose by 25.4% and then in Semesters 4 to 6 by a further 23.6%. Over the same periods scores on Question 3 rose by 20.2% and then by 26.1%.

rose to 95.2% and remained within a two-percentage point range through Semester 6. The use of museum websites rose from 34.7% in Semester 1 to 83.5% in Semester 4 and 90.8% in Semester 6. Introducing students to museum websites with the scaffolding activities is associated with a continued rise in using secondary sources produced by museums. Podcasts privileged museum artifact webpages, the Metropolitan Museum of Art’s *Heilbrunn Timeline of Art History* essays, the Penn Museum’s *Expedition Magazine*, and other museum newsletters, blogs, and catalogues.

Semester	Describes Comparative Artifact(s)	Uses Museum Website Sources	Uses Scholarly Source(s)	Uses Non-Scholarly Source(s)	Total Podcasts
1	9 (12%)	26 (34.7%)	32 (42.7%)	28 (37.3%)	75
2	18 (19.4%)	58 (62.4%)	66 (71%)	38 (40.9%)	93
3	24 (32%)	55 (73.3%)	65 (86.7%)	21 (28%)	75
4	59 (57.3%)	86 (83.5%)	98 (95.2%)	18 (17.5%)	103
5	48 (55.2%)	73 (83.9%)	82 (94.3%)	12 (13.8%)	87
6	74 (75.5%)	89 (90.8%)	92 (93.9%)	15 (15.3%)	98

Table 1: A comparison of podcasts presenting artifact-comparison discussions alongside secondary source usage. Number of podcasts in each cohort listed, percentage in parentheses.⁵⁶

Figure 4 graphs the data presented in Table 1 to show that as the discussion of comparative artifacts and scholarly sources increased, simultaneously the percentage of podcasts that depended on non-scholarly secondary sources decreased. Non-scholarly sources primarily included encyclopedias and web articles or public websites with no research apparatus. In Semesters 1 and 2, 37.3% and 40.9% of podcasts cited non-scholarly secondary sources. In Semester 3 this dropped to 28% and fell further reaching 15.3% in Semester 6. Notably, in Semesters 4 to 6 podcasts that used non-scholarly sources were more likely to couple them with scholarly sources and museum websites. For example, of the 15.3% of Semester 6 podcasts that used non-scholarly sources 85.7% also used either a scholarly secondary source or a museum website or both. Even when podcasts did not present a clear comparison of artifacts, their references showed that they drew on museum sources and scholarly publications.

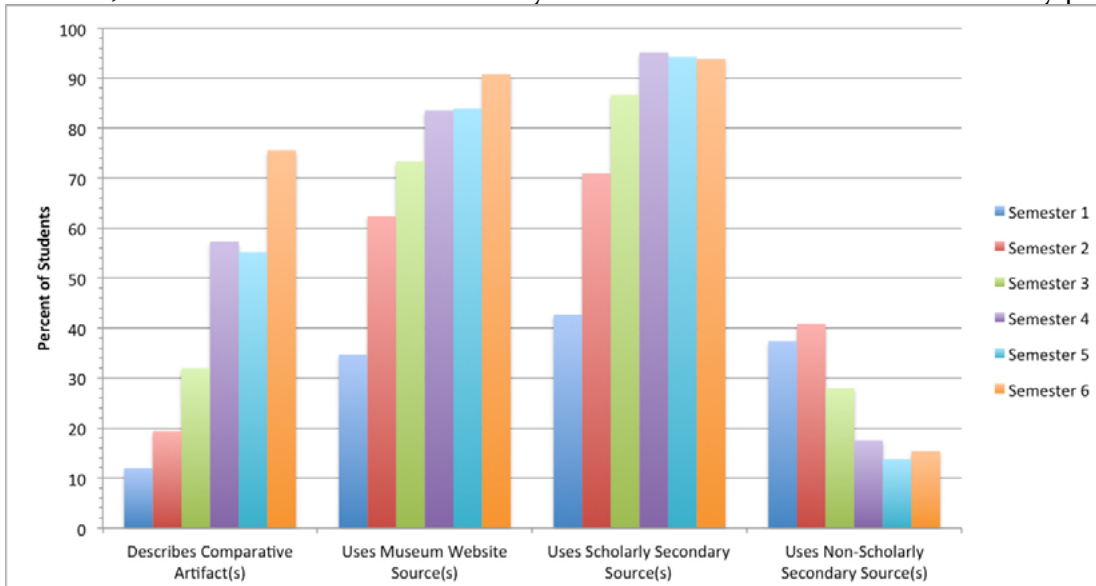


Figure 4: A graph comparing the inclusion of artifact comparison and the use of secondary sources in Semesters 1 to 6

⁵⁶ All statistical work was completed by the author.

This practice suggests that students did not employ museum webpages only for comparisons, but as they grew in confidence and skill through completing the scaffolded activities, students used museum sources more intensely. The podcast evaluation sheet required students to include two quotations from a named scholarly authority to encourage meaningful engagement with secondary source ideas. Quotations from named scholars replaced the expert commentary supplied in the *AHOW* podcasts. In podcast scripts quotations identified important contextual information that tracked students' thinking. As Table 2 reveals, many students avoided this requirement until the in-class contextualization activity was introduced. In Semesters 1, 2, and even 3, fewer than two-thirds of students met the two-quotation minimum requirement. From Semester 4, Activity 3's emphasis on explaining each secondary source's usefulness and the introduction of more targeted museum sources coincided with a rise in quotation use. In Semesters 4, 5, and 6, more than two-thirds of podcasts met the minimum expectation and on average a quarter of podcasts surpassed it.⁵⁷

Semester	Uses No Quotations	Uses 1 Quotation	Uses 2 Quotations	Uses 3 or More Quotations	Total Podcasts
1	18 (24%)	37 (49.3%)	13 (17.3%)	3 (4%)	75
2	30 (32.3%)	15 (16%)	36 (38.7%)	13 (14%)	93
3	16 (21.3%)	11 (14.7%)	37 (49.3%)	10 (13.3%)	75
4	19 (18.5%)	11 (10.7%)	44 (42.7%)	28 (27.2%)	103
5	16 (18.4%)	5 (5.8%)	40 (46%)	24 (27.6%)	87
6	19 (19.4%)	4 (4.1%)	52 (53%)	23 (23.5%)	98

Table 2: Podcast use of quotations in Semesters 1 to 6. Number of podcasts in each cohort listed, percentage in parentheses.

In Semesters 4, 5, and 6, after students submitted their podcasts, they completed an online survey inviting reflection on their experience. The short-answer survey encouraged students to share their feelings about the podcast as an authentic assignment and to evaluate the utility of the scaffolded activities. Responses varied in length and detail. Moreover, only 154 out of 288 students completed the survey, resulting in a survey response rate of 53.5%. This relatively low response rate is mitigated somewhat by the clear trends in the survey data.

Figure 4 shows that in all semesters surveyed respondents generally valued the assignment, the staged process, and using *A History of the World in A Hundred Objects* podcasts as models. Between 83% and 93% of respondents recorded positive comments about creating artifact-focused podcasts, both as an enjoyable activity and as an assessment that recreated the historian's process.⁵⁸ Many respondents noted how much they appreciated the freedom to choose their own artifact and explore one topic in-depth. An even higher percentage of respondents, between 91% and 96%, stated that the scaffolding assignments were helpful. Some respondents observed that the assignments prevented procrastination as they had already completed the foundational research in class. Other respondents appreciated the instructor's feedback on comparative artifact and secondary source choices. Many respondents stated that the scaffolding assignments made the process more clear and less stressful. In contrast to near unanimity on the other questions, responses were varied on the utility of *A History of the World in A Hundred Objects* podcasts. Between 51% and 79% found these podcasts to be valuable models for understanding artifact-focused podcasts generally. Some respondents cited the podcasts as useful templates for structure and tone, while others found their length and use of guest commentators to be too different. Notably, respondents were less keen about diagramming *AHOW* podcasts. This sub-theme in responses suggests that more time could have been spent in class helping students to see how the *AHOW* structure provided a useful model.

⁵⁷ In Semesters 4, 5, and 6, 69.9%, 73.6% and 76.5% of podcasts included two or more quotations from scholarly secondary sources.

⁵⁸ This mirrors the feedback that Hannan *et al.* collected regarding the perceived benefits of object-based learning; Hannan, Duhs and Chatterjee, "Object-Based Learning," 162-163.

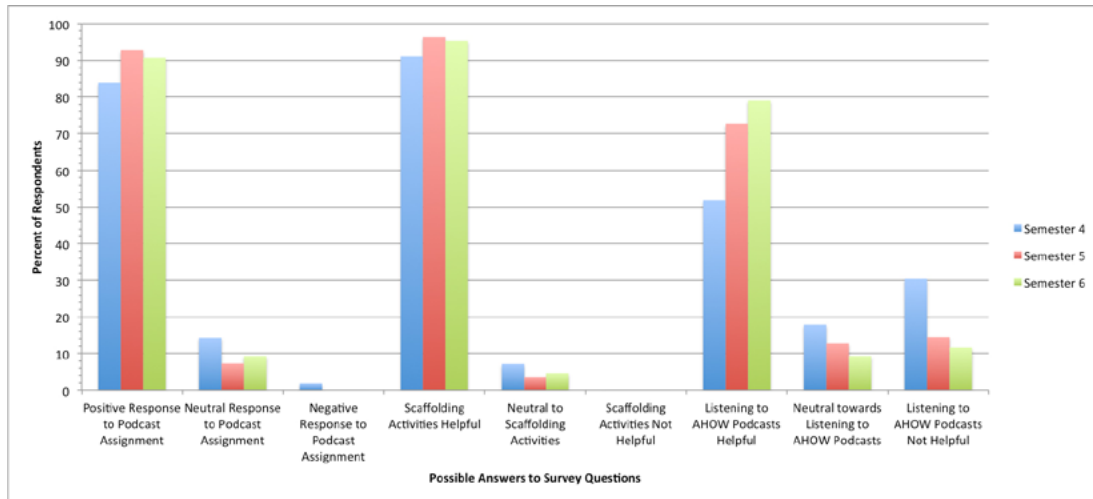


Figure 5: A graph of the post-podcast survey data, Semesters 4 to 6.

Discussion

Prior to developing this scaffolded system, the podcast assignment provoked mixed feelings. Students enjoyed visiting the university's museum, and appreciated the freedom to choose an artifact and develop their own investigation. However, students struggled to determine if their artifact was representative in a field they had little knowledge of. Students often failed to use scholarly secondary sources in their research, and provided thin context to support arguments about their artifact. Students who were already doing well in the class tended to do well on the podcast assignment, but there was no integrated mechanism to assist students who struggled with analysis, research, and contextualization.

The introduction of the staged activities profiled in this article helped the podcast assignment meet the challenges that Bain and Ellenbogen identified in educators' support of novice museum-learners. The activities prompted students to "formulate legitimate inquiry problems or driving questions that transform objects into sources [...and used] disciplinary tools to interrogate objects [... in order to] connect objects/sources to relevant archival and curatorial resources [...before finally employing] museum resources in their inquiries and investigations."⁵⁹ Moreover, these activities revealed to students the assessment's roots in scholarly research and museum artifacts. The staged production process reassured students who worried about completing big projects, and provided more opportunities for targeted formative feedback resulting in strengthened research. Tracking student podcasts across six semesters revealed that introducing a staged process of scaffolded activities increased student awareness of the historian's process and improved student skills. As the opening quotations drawn from survey responses show, students were well aware of this staged process and appreciated the intellectual and time-management benefits.

These activities reassert the importance of using sourcing information as anchors for primary sources. Students found date, place, creator, and type of artifact to be familiar categories that also organized museum collection search engines. In completing Activity 1 students reliably found artifacts that overlapped in type, time, or place with their focal artifact, and they carefully identified those links through the comparative artifacts' sourcing information, material and content (*i.e.*, what they saw). While students were generally proficient in identifying similar and comparative artifacts, they found it more challenging to provide an explanation of what the artifacts indicated about past societies. Clear instructions about incorporating artifact comparisons into podcasts as support for broad statements about an artifact's mundane or rare quality are important. Selecting complementary artifacts also helps students to increase their understanding and develops a conversation about artifact users and past practices and values. Together these activities help students contextualize artifacts and

⁵⁹ Bain and Ellenbogen, "Placing Objects Within Disciplinary Perspectives," 162.

draw important conclusions from simple scaffolding activities.

To ensure that students progressed towards conclusions about past societies, it was crucial to incorporate secondary sources after artifact comparisons. Working on the artifact comparison activities led to a dramatic increase in student comfort with museum websites and their employment as secondary sources. Student use of non-scholarly sources diminished just as use of scholarly sources increased, which indicates a shift in thinking about useful research sources. Observing students working with secondary sources reminds us how challenging introductory-level students find reading a scholarly secondary source, identifying useful information, and articulating its contribution to an early-stage project. This observation highlights the importance of the scaffolded activities that introduce targeted scholarly sources, like the *AHOW* podcasts and *Smarthistory* videos, museum essays, and short artifact-focused journal articles.

Sam Wineburg's warning that simple access to artifacts is not transformative underpinned students' visit to the museum and their engagement in historical thinking.⁶⁰ Starting with close observation, then comparing artifacts, and finally contextualizing artifacts with scholarly secondary sources guides students through the historian's full process. Engaging closely with artifacts to investigate past societies is the hallmark of historical work and a podcast chronicling this process is an appropriate authentic assessment. These activities fulfill Craig Barker's encouragement to "link museum experiences with classroom history teaching in a dynamic and interesting way."⁶¹ In-class activities in which students found, selected, and examined focal, comparative, and complementary artifacts, are activities which could be completed in small groups that appear to be less stressful to students, while offering a valuable feedback opportunity. Overall, after introducing the scaffolded activities, when students submitted full podcasts, scripts showed that they used scholarly secondary sources with greater confidence and in greater numbers than in previous semesters. This dramatic change in student performance argues for the scaffolding activities (as formative assessments) having a beneficial impact on student understanding and the podcast (as a summative assessment).

Some instructors may question why so much time and effort should be invested in introductory courses that often serve as general education requirements and so attract many students who will not become History teachers, History professionals, or historians. Other instructors worry about overloading freshman students intellectually, and prefer to ease into considerations of disciplinary methods with a few defining conversations at the introductory level that prepares the ground for a sophomore methods course. This strategy risks losing students who enjoy the investigative side of History and are more keen on doing than memorizing. In addition, this slow start wastes time. As Wiggins reminds us, "If we want competent performance later, we need to introduce novices to that performance from day one."⁶² Introducing students to artifact-focused authentic assessments that place them in the position that they aspire to professionally, with a supporting structure of scaffolding and feedback, encourages greater student understanding of the historian's process, purpose, and impact.

60 Samuel S. Wineburg, "Historical Problem Solving: A Study of the Cognitive Processes Used in Evaluation," *Journal of Educational Psychology* 83, no. 1 (1991): 73-87.

61 Barker, "History teaching and the museum," 260-261.

62 Wiggins, "Assessment: Authenticity, Context, and Validity," 202, 204.

Appendix 1: Comparative Artifacts Exercise

Comparing artifacts will tell you what is generic about your artifact and what is extraordinary. When you choose comparative artifacts, think about the artifact's material, decoration, location, date, and purpose. Providing a comparison of artifacts in your podcast will expand your Artifact Analysis discussion and help you understand the artifact's likely owner and use. Find two artifacts that are somewhat similar to your chosen artifact. Each example should come from a different museum. Each artifact should have clear sourcing information that parallels the focal artifact. Choose museum webpages that provide a substantial amount of background information that contextualizes the artifact and its place in society.

Remember that your chosen artifact must be from before 600 CE and an area that we have studied.

Focal Artifact

Name:

Date:

Geographic Origin:

Materials:

Comparative Artifact 1

Name:

Date:

Geographic Origin:

Materials:

Museum and Website URL:

Comparative Artifact 2

Name:

Date:

Geographic Origin:

Materials:

Website URL:

Explanation: Do these artifacts show consistency over time and/or place? Do these artifacts show change over time and/or place? Provide three sentences for each artifact explaining how the comparative artifact helps to better understand your focal artifact.

Appendix 2: Complementary Artifacts Exercise

Comparing artifacts will help you think about what your artifact was used for, by who, and where. When you choose complementary artifacts, think about the artifact's date, location, material, and purpose. Providing a comparison of artifacts that were used together or by the same person in your podcast will expand your Artifact Analysis discussion and help you understand the artifact's likely owner, purpose, and meaning. Find two artifacts that are adjacent to your chosen artifact in purpose or space. Each example should come from a different museum. Each artifact should have clear sourcing information that parallels the focal artifact. Choose museum webpages that provide a substantial amount of background information that contextualizes the artifact and its place in society.

Remember that your chosen artifact must be from before 600 CE and an area that we have studied.

Focal Artifact

Name:

Date:

Geographic Origin:

Materials:

Complementary Artifact 1

Name:

Date:

Geographic Origin:

Materials:

Museum and Website URL:

Complementary Artifact 2

Name:

Date:

Geographic Origin:

Materials:

Museum and Website URL:

Explanation: Provide three sentences for each artifact explaining how the complementary artifact helps to better understand some aspect of your focal artifact.

Appendix 3: Contextualizing Artifacts Exercise

Secondary sources provide information about how artifacts were used and by who, how they were made and the origin of their materials, their place in daily life, and what they tell us about their society. Students should find two scholarly secondary sources that provide background information about their artifact, its materials or use, or the time and place from which it originated. Both these sources should have been written/made after 1975 CE. These sources must be listed as footnotes in your script after the appropriate quotation.

Focal Artifact

Name:

Date:

Geographic Origin:

Materials:

Secondary Source 1

Type of Source (i.e., museum website, journal article, podcast, website):

Author:

Title:

Date:

Chicago Note Citation:

If this is an online source, provide the Website URL:

Secondary Source 2

Type of Source:

Author:

Title:

Date:

Chicago Note Citation:

Website URL:

Explanation: What sort of information does each source provide? Is it specific information about the type of artifact you have chosen? Is it information about the material or the original use of this artifact? Is it more general background information about the place or time period? Provide three sentences for each, explaining how this secondary source helps you to better understand your focal artifact.

Appendix 4: Podcast Evaluation Sheet

Basic Expectations, 5 points	Satisfactory			Unsatisfactory	
Object from assigned galleries and time period					
Podcast runs 4-6 minutes long					
Student also submitted a script for podcast					
	Exceptional	Proficient	Basic	Unsatisfactory	Poor
Introduction, 30 points					
Object's sourcing info provided					
Full description of the artifact provided, including: shape, texture, color, exact measurements, weight, sound					
Artifact Analysis, 40 points					
All persons, objects, symbols, gods, places, cultures named in/related to the artifact are identified, showing meaning.					
Detailed description of how the artifact might have been used originally, its purposes, and its users.					
Was this artifact restricted to use by a single gender, a certain profession, and/or a wealth/status group?					
Was this artifact mass-produced or artisanal? Created for a specific owner, personalized, or to be circulated throughout society? A luxury item or a mundane object?					
A comparison of similar artifacts reveals the variety or similarity of this type of artifact in this time and place.					
Complementary artifacts are discussed to explain the artifact's use and place in its original community.					
Two quotations (+ footnotes) included from named scholarly authorities about the object's meaning and significance					
Logical development of discussion					
Interpretive Conclusion, 25 points					
What does this artifact tell us about the historical context in which it has been produced and/or used?					
What are the historical limits of this specific artifact? What does it not tell us that we might want to know about it?					
How does this artifact contribute to a better understanding of the past?					
How does it help us reflect on an issue, theme, or type of artifact studied in this class?					
Clear sense of historical causality: dates, names, details					
Podcast demonstrates intelligent reflection.					
Total Grade:					
	/100				

Appendix 5: Reflecting on the Podcast Questionnaire

Now that you have submitted your podcast, reflect on your feelings about the assignment's stages and usefulness.

Question 1: How do you feel about this type of assignment as a way to follow the historian's footsteps?

Question 2: What skills did you use in the podcast assignment? Circle all that apply.

- Develop a disciplined, skeptical stance and outlook on the world that demands evidence and sophisticated use of information.
- Understand the dynamics of change over time.
- Explore the complexity of the human experience, across time and space.
- Evaluate a variety of historical sources for their credibility, position, and perspective.
- Read and contextualize materials from the past.
- Distinguish between primary and secondary materials and decide when to use each.
- Recognize the value of conflicting narratives and evidence.
- Generate a historical argument that is reasoned and based on historical evidence selected, arranged, and analyzed.

Question 3: How did the preparatory activities (comparing and contextualizing artifacts) help you to prepare for drafting the podcast?

Question 4: Did listening to the *A History of the World in 100 Objects* podcasts help you to build a better podcast? Why or why not?

Question 5: How long was your podcast?