

The Gabii Digital Publication Collaboratory: Narrative

Q1: Describe your research project, including the questions that motivate the research, your approach and the anticipated outcomes. (969/1000 words)

When we invest in new forms of digital publication, are we truly moving our disciplines forward or engaging in innovation for innovation's sake? This is the motivating question behind "The Gabii Digital Publication Collaboratory," a project that pairs disciplinary experts with information scientists, scholars of rhetoric and composition, technologists, librarians and publishers from Michigan Publishing (including University of Michigan Press) to improve the practice of digital publication in the humanities.

During the proposal development phase we will investigate the ways in which users engage with digital publications. If funded for a full grant, we will use that research to modify, revise, and change how we collect data in the field and publish them digitally. We will also use what we have learned to offer some best practices to other publishers and researchers and embed these in the way Michigan Publishing supports the digital publishing ambitions of its authors in the future.

Rather than engage in abstract exploration, the project is grounded in the publication of a series of "next generation monographs" reporting the results of excavations led by Dr. Nicola Terrenato and sponsored by the Kelsey Museum of Archaeology since 2007. The first title, [*A Mid-Republican House from Gabii \(henceforth "Gabii 1"\), was first published by UMP in December 2016*](#) and several more are planned in the next few years. To be clear, we are not applying to the HC to fund the publication of these volumes, but rather are using them as examples to improve the ways in which such innovative digital projects are researched, constructed and presented.

The Gabii project is an ideal testbed for investigating and improving the practices of digital publishing. An international team led by U-M researchers has now spent 10 years excavating the ancient Latin city of Gabii, a city-state that was a rival to Rome in the last centuries BCE. With deep stratification spanning over a millennium, the site of Gabii represents a unique opportunity to investigate the rise and fall of an entire ancient city. From a methodological perspective, the project has been innovative in adopting image-based 3D photogrammetric modeling to document the archaeological remains. Over 500 GB of digital data have been collected and analyzed during five summer fieldwork campaigns.

From the start of the Gabii project it was apparent that employing digital tools in the field required a different mode of publication, and that this would pose sociopolitical as well as technological challenges. From 2013-2015 the "Gabii Goes Digital" project funded by NEH explored the challenges of gaining acceptance for a multimodal publication among peer-reviewers and editorial boards. Once accepted for publication, Gabii received a subgrant from a Mellon Foundation-funded initiative led by UMP focused on "Building a Hosted Platform for

Managing Monographic Source Materials.” Now the first work is published, we seek support to understand its reception and use.

The approach taken by the project proposed here is inspired by the “agile method” of design thinking. Reacting to bureaucratic, sequential approaches to product design, agile approaches are people-focused, speedy and iterative and work at the level of segmentable components rather than an integrated whole. An agile approach is perfectly suited to a contested scholarly communication environment in which the traditional container of “the monograph” is being challenged by the affordances of digital scholarship but where many concerns still exist about the quality and permanence of electronic publications. An agile approach is also flexible enough to accommodate projects for which the boundary between a “research” and “publication” phase has broken down and where choices made upstream in the field have a profound effect on the quality and sustainability of the published output.

Our proposal places experiential learning by students at its core. The five graduate students on the project will shape how the research is conceptualized and take the lead in implementation. Graduate students working in the field at Gabii have a great deal of autonomy in co-developing research questions, supervising undergraduates, and leading teams. Similarly, the proposed project will provide a framework for graduate students to take leadership in creating high-quality digital publications. Mentored by their faculty and library collaborators, the students in classical studies will learn and apply User Experience/User Interface (UX/UI) testing methodologies, and their peers from Sweetland and the School of Information will gain practical knowledge of multimodal and multimedia composition and publication.

If awarded an HC Proposal Development grant we (faculty, graduate students, staff members) will spend May and June 2017 working as a team to develop the process through which we propose to understand the reception of the *Gabii 1* publication and testing different methodologies. During this collaborative process we will learn to work with each other effectively and continue to form research questions.

If awarded a full grant, we will use what we have learned in the analysis of *Gabii 1* to modify, revise, and change how we collect data and publish it digitally. *Gabii 1* (while live and being sold) is explicitly in “beta” form so we will revise its presentation to create the “final” version, due to be launched in spring 2018. Between September 1, 2017, and August 31, 2019, it is anticipated that four further publications will be submitted to UMP in the Gabii Project Reports series. Our application of an agile design process will ensure that we continually improve how we communicate the project results, as well as broadening what we have learned to benefit other digital publishing projects.

While we plan to disseminate the best practices we develop through scholarly articles and presentations, we will also apply these to improve the capacity of Michigan Publishing to support enriched digital publishing. What we learn will especially influence the design of the Fulcrum platform (www.fulcrum.org) developed by UMP with current Mellon funding that ends in spring 2018 but with an invitation from the Foundation to apply for further support.

Q2: Describe your collaborative process. What will you work out or hope to accomplish during the Spring Term proposal development phase of your project? What is the anticipated role of graduate student collaborators, and what is your mentoring plan for graduate students (and undergraduates, if relevant)? (922/1000 words)

By the end of the spring 2017 proposal phase we will have:

- (a) experimented with different forms of user-testing to help improve future digital publications;
- (b) improved the final publication on the Fulcrum platform of *A Mid-Republican House from Gabii*, revised methods of data collection during the summer 2017 digging season at Gabii, and informed the design of future titles in the series;
- (c) identified ways of improving the practices of digital collecting and publishing more broadly that should be explored more fully during a full HC project as well as in upcoming field seasons.

The Gabii Digital Publication Collaboratory team will be composed of PI (Nic Terrenato) and collaborators (Kentaro Toyama, Naomi Silver, David Stone, Charles Watkinson); three Michigan Publishing experts (Jeremy Morse, Becky Welzenbach, and Jon McGlone); and five graduate students, Matt Naglak, Tyler Johnson, Zoe Jenkins, Adrienne Raw, and a student to be named from SI.

Five activities will be the focus of the proposal development period, each setting the ground for more expansive studies should a full HC proposal be invited.

(1) **Focus Group with Undergraduate Students (Non-Specialists):** Zoe Jenkins working with Dr. David Stone, Associate Research Scientist in the Kelsey Museum, will lead a project to study the use of the *Gabii 1* publication among undergraduates. They will identify a focus group of students and will conduct a study assisted by Associate Librarian Welzenbach, who will develop tools for gathering student feedback including the open source Hypothes.is annotation tool. The purpose of this exercise is to evaluate whether the publication achieves its goal of being a pedagogical tool. If a full proposal is invited, this experiment will be expanded to use the publication as the basis of a first year seminar to expose undergraduates more formally to the techniques of digital archaeology and new publication modes.

(2) **UX/UI Testing with Individual Expert Users:** Dr. Toyama's graduate student from SI will collaborate with Naglak and Johnson to conduct a UX/UI evaluation of *Gabii 1*. Senior Associate Librarian McGlone, who has led design on *Gabii 1* will work closely with Toyama and the students. In collaboration with Stone, who is book reviews editor for the *American Journal of Archaeology* and thus highly networked, Naglak and Johnson will identify disciplinary experts who are likely readers of the work and led them through a UX/UI study remotely using usertesting.com software. Scholars will be asked to execute particular tasks (especially on the 3D model and database) and their paths to the information tracked. Each participant will receive

a \$50 Amazon gift card (subject to IRB approval). We will not only test the usability of the publication by human readers but also by machine-readers (e.g., screen readers, data mining software). Naglak and Johnson will also use what they have learned to prototype improvements (e.g., adding cross-sections to Unity 3D) potentially shaping how data is gathered in the field.

(3) **Digital Writing Analysis:** In collaboration with Dr. Silver, Associate Director of Sweetland, Adrienne Raw will conduct an analysis of the level of writing in *Gabii 1* to see if it succeeds in its ambition of engaging with diverse users through layered narratives, leveraging the multi-modal form of the publication. The pair will conduct a literature review of best practices in multimodal web writing and perform a rhetorical user analysis grounded in these best practices. This analysis will recognize that the *Gabii* publication exists within a tradition of scholarly presentation of archaeological evidence and must be convincing to specialist researchers as well as accessible to more general readers. Should a full proposal be invited, Raw would distill the findings from the rhetorical user analysis into a set of potential UMP guidelines for authors of similar multimedia/multimodal publications and seek models of excellent web writing that exemplify some of these guidelines, potentially also developing materials to teach these best practices.

(4) **Guerilla Testing with Museum Visitors:** With assistance from Stone, Jenkins, a graduate student with a focus on museology, will conduct “guerilla testing” (a technical form of impromptu usability testing) among Kelsey Museum visitors. Dr. Carla Sinopoli who is Jenkins’ mentor in completing the Museum Studies Certificate is engaged with another HC project and cannot serve as a co-PI but will support Jenkins in formulating research methods. *Gabii 1* will be presented as an interactive experience for the highly diverse audience that a university museum attracts. Setting up a large video station in a museum gallery, Jenkins will facilitate and observe visitor interaction, especially with the 3D model at the center of the work. This activity will be conducted in collaboration with Cathy Person, outreach coordinator at the Kelsey.

(5) **On Site Publishing Consultation:** The 2017 Field Season at *Gabii* runs from June 19 to July 28. With the goal of helping Naglak and Johnson apply what has been learned about the reception of *Gabii 1* to the ways in which digital tools are used in the field McGlone will spend a week on site (likely the week of June 26). As well as playing an important role in informing some of the technology choices being made, the familiarity with the fieldwork techniques employed will help McGlone be a full partner in the publishing program.

The project team will meet once every two weeks during May and June to evaluate data gathered during these analyses, reflect on the collaboration, and discuss further directions for development of a full proposal. A particular focus of these meetings will be discussion around the practices of digital publication informed by the data gathered and led by the graduate student investigators.

Q3: What contribution(s) will the project make to the humanities field(s) in which it intervenes, and to the humanities more broadly? How do you anticipate results will be communicated and to what audiences? (583/600 words)

The practical case study on which this project is focused, the dissemination of excavation results from the site of Gabii, is archaeological and therefore the most obvious impact will be on scholars of archaeology and anthropology who are seeking new solutions with which to disseminate their data-intensive publications. However, the techniques and tools developed by this project have broad implications for any humanities researcher invested in long-form publication, especially authors in other media-rich fields such as film studies, music, art history, digital rhetoric, folklore, or ethnography. While there are an increasing number of repositories in which source materials can be deposited (such as Deep Blue at the University of Michigan), this practice disassociates the files from the discourse, data from narrative. The approach taken to publishing *Gabii 1* creates an integrated, discursive relationship between language and media with the aim of creating an experience of digital reading that will be thrilling to the non-specialist, both in terms of how the narrative engages them and in the intuitive interface.

The project contributes particularly to two areas of research in information science: investigations into the desirable qualities of “the monograph of the future” and an emerging body of scholarship about digital rhetoric and web writing in which the Sweetland Center for Writing is a national leader, having established a vibrant community of practice under the auspices of the [Sweetland Digital Rhetoric Collaborative](#). Three current studies into the future of long-form digital scholarship reflect a high degree of activity in this research area: “[Reimagining the Digital Monograph of the Future](#)” is a December 2016 white paper recently published by Alex Humphreys of JSTOR Labs which proposes “12 themes and principles for a reimagined monograph”; the Andrew W. Mellon Foundation scholarly communications program has recently proposed 9 characteristics of the monograph of the future based on consultation with multiple stakeholders in [a July 2016 blog post on “Monograph Publishing in the Digital Age”](#); and the main project report from the [“Academic Book of the Future” project funded by AHRC in the UK](#) is due to issue recommendations in spring 2017.

We will communicate our findings in academic journal submissions and presentations targeted at two audiences: scholars of information and scholars in archaeology. For the benefit of scholars and practitioners in the former area, an article sharing what we have learned will be submitted to a respected, peer-reviewed such as the *Journal of Electronic Publishing* or *Learned Publishing*. We will also present in digital rhetoric fora, such as at the annual *Computers and Writing Conference*, and journals like *Kairos* or *Computers and Composition*. For archaeologists, we will present our results at the meeting of the Archaeological Institute of America / Society for Classical Studies, and will submit an article to a journal such as the *American Journal of Archaeology* or *Antiquity*.

We will also embed what we learn in the practices of the University of Michigan Press and Michigan Publishing Services; the former focused on supporting the work of humanists and social scientists in key disciplines irrespective of institution and the latter almost exclusively

serving faculty and students at the University of Michigan. The best practices developed will be manifested in the continuing Gabii series and in other digital publications, such as those developed by the Digital Rhetoric Collaborative. They will also be articulated in author guidelines and the materials associated with the Fulcrum platform. Since Fulcrum will host publications from other presses, the practices adopted there will have a strong multiplier effect on other publishers and libraries.