

SPARC report – October 2014 to October 2015

In September 2014, I submitted a grant proposal to the National Endowment for the Humanities “Level II Digital Humanities Start-up Grant” competition, titled “A 3D digital Collection and Virtual Exhibit for Santa Ana Tavela’s Community Museum.” The proposal was a direct outgrowth of the SPARC awarded project that I had developed in concert with CAST-AIL. The grant would have provided for two summers of research in Oaxaca, Mexico, developing 3D digital assets for a virtual gallery space for the local community museum, as well as develop a workshop protocol that could then be shared more widely with other local community museums that are part of the Oaxaca-based NGO “Unión de Museos Comunitarios de Oaxaca.” I found out in March 2015 that the grant was not successful. The reviews that I received were overall strong – nearly everyone gave a final rating of Very Good, but raised concern about the on-the-ground specifics of the training – how many people would be trained, whether such training was sustainable, how such a training program would be evaluated, etc. In addition, several reviewers suggested that the technical training that I would provide would be unsustainable since I had mentioned that the specific open source software and 3D imaging technologies were constantly changing.

In anticipation of this possible result, in November 2014, I applied for a Collaborative Research and Creative Activity Fund grant through IU’s Office of the Vice Provost for Research, to collaborate with the Office of Digital Arts and Humanities on a six month, \$19,990 project to revise and update the digital protocol for the NEH proposal, create 5-7 3D digital assets, and research content management systems in order to develop a mock-up of a virtual gallery space. The grant funded the purchase of a new powerful laptop (Alienware) for processing and creating 3D assets. In addition, it paid a summer faculty stipend and allowed me to hire a Graduate Assistant to help with the updates and revisions of the NEH proposal during Fall 2015.

With the CRCAF work, I would be able to point reviewers to a sample gallery space and I could nail down some specifics on the murkier, technical areas of the project, as well as keep up with changing software and technologies. The graduate assistant who is helping me to develop revised protocols is someone that is brand-new to this kind of work. I selected her purposefully since we want to design a tool that is easy for folks who are brand new to computing to do the work – she is documenting everything that she is doing and creating tutorials with screenshots that I can use later on. In addition, an undergraduate student volunteer, which is majoring in Anthropology, and completing a certificate in Arts Administration, has also been working with us to develop the tools. Last summer, she was a student in my course in Oaxaca, Mexico, so knows first-hand the contingencies of working in Oaxaca, and brings a unique creative spirit to our team. Her help to this point has been fabulous.

So far this semester we are experimenting with photography, lazy susans, and different (free or low cost) software packages for stitching, editing, and viewing models (Photoscan, Meshlab, Meshmixer, Autodesk Memento, Sketchfab). We are sticking with photogrammetry as a data capture method (after playing with some iPhone apps) and have continued to use Photoscan as a photo stitching and model creation software package. We have experienced several failures with focus, lighting, and shininess and have had to work through and figure out how to improve our initial data capture. We have invested in a few extra camera tools (a polarizing filter to cut down on glare) and we built two wooden stands using different sized gorilla pods like the one that Adam had built for the SPARC project. We have sometimes placed that on top of a low-cost lazy susan designed for large electronics (though frankly, I think we have had better success without the lazy susan). In addition, we are experimenting with different cameras, and have found that higher quality point and shoots have been most universally effective.

On the content management side, we are now looking into using Mukurtu (<http://www.mukurtu.org/>), which is a CMS that is specifically designed for indigenous communities to manage their own heritage items. Today we are having a “data audition” meeting with Mukurtu

representatives to discuss storage needs and costs involved in designing and setting up a virtual gallery space for the museum. The specific challenges with Mukurtu that I see include 1) the up-front costs for the data storage space and design of the specific web interface, 2) the lack of an already designed Spanish-English bilingual platform (though this, they say, is in development), and 3) the use of embedded 3D objects through Sketchfab (which means that Sketchfab ultimately holds and manages the content, rather than just the heritage community – also, non .edu users are limited in the number of gigabytes of space they can have on Sketchfab). We turned to Mukurtu initially because the IU Advanced Visualization Laboratory has been slow to develop and make available the open source 3D web viewer that they said that they would be creating for this project and for other projects at IU (the Center for Biological Research Collections, which is digitizing thousands of animal bones held by the William R. Adams Zooarchaeology Laboratory). AVL doesn't want to have anything to do with managing the data and delivering content, which is something that IU Library is more equipped to handle. We are planning in the near future to set up a meeting with representatives of the Office of Digital Arts and Humanities and the IU Libraries working with Center for Biological Research Collections team to discuss my project and to see how close they are to having a customizable CMS available for faculty and for other projects. Part of the challenge is getting different units in the university to work well together. After this meeting, we hope to have a better sense if going through IU would make the project cheaper and more sustainable, specifically addressing one of the critiques of the reviewers of the NEH grant.

In the end, it is unclear which route I will take in the rewrite of the grant proposal. We are now planning to submit a revised Digital Humanities Startup Grant to NEH next September 2016. In addition, I have been in conversation with someone at another university who would like to do a similar project in India, and I am considering proposing that we apply together for an ACLS Collaborative Research Grant (due date next September 2016) to develop the project together. Both sites lack developed digital infrastructure and face similar challenges of wanting to put museum content online, but not knowing how. Lastly, we have identified a Mellon grant initiative available for IU faculty through the Office of Vice Provost for Research for developing workshops. I am hoping to apply for this grant next September to develop an initial round of workshop trainings in Mexico for the different community museum staff and Santa Ana Tavela museum committee members and interested community members.