

Innovations in Teaching Using Technology Grant 2017

1. Title of proposal: From Projection Mapping to Creative Placemaking: Visualizing Urban and Environmental History in Place

2. Courses/Curriculum affected: Sensing the Sustainable City (GEOG 16250), Urban Geography (GEO 16302), Enviro/Sustain Planning (PLAN 31389), Cultural Geography (16110) Certificate of Undergraduate Study (CUGS) in Sustainable Urbanism and Environmental Humanities (forthcoming)

3. Name of applicant: Jennifer Kitson, Department of Geography, Planning, & Sustainability

4. Objectives of the proposal: This proposal seeks to utilize “projection mapping” technology as place-based urban pedagogy in geography, planning, and sustainability. Projection (video) mapping refers to the process by which video content is projected onto 3D objects, surfaces, or environments. In “augmenting reality” of everyday sidewalks, building surfaces, and public spaces through digital projections, this technology has tremendous capacity to tell experiential, site-specific stories in and through the built environment. Projection mapping technology will be utilized as a medium for students to research, design, and narrate urban and environmental history in public space. Importantly, this technology has the capacity to tell stories about a specific place *through* place—to utilize the built environs in communicating an otherwise invisible past, present, or future. Imagine strolling down mediation walk, encountering a dynamic representation of the various historical events that occurred in *this* place: from Lenape settlements to peach groves to the earliest days of the Normal School. Consider how complex human-environment relationships and systems might be visualized at the sites on campus where our everyday lives make contact with them: from water coursing through the Mantua watershed to infrastructure conduits transmitting heat, steam, and water.

Importantly, in this pedagogical approach the act of conducting and projecting place-based research is itself a placemaking strategy, a technique designed to generate and maximize shared meaning and value of public spaces at Rowan. Since the 1960s, studies of the relationship between public life (social interaction) and public space (built environs) have become of integral in the design, planning, and programming of vibrant, sustainable places. Seminal public life and space studies by Jane Jacobs (*The Death and Life of Great American Cities*, 1961), William Whyte (*The Social Life of Small Urban Places*, 1980), and Jan Gehl (*Life Between Buildings* 1971) have demonstrated that the design of good public places facilitates generative social interaction which, in turn, has the capacity to positively influence health, well-being, environmental, and economic outcomes for communities. The study and design of public spaces that maximize shared value has become a critical dimension of sustainable placemaking in a variety of courses taught in geography, urban planning, and environmental /sustainability studies. Increasingly, Universities are also concerned with many of the same livability and sustainability issues of the cities they reside in (see [Project for Public Spaces Campus](#) projects). Students of public space and social life are keenly aware that Rowan lacks continuous use and programming of outdoor environs, especially during evening hours. This proposal seeks to build upon best practices in the design of great public places through visually illuminating public sites with during dusk / dark hours via projection mapping.

5. Description of specific innovation: This proposal is **innovative** because it utilizes projection mapping as place-based pedagogy.¹ Inspired by [Cité Mémoire](#) (city of memory) the largest outdoor urban public history video projection installation in Montreal, this proposal uniquely adapts projection mapping for teaching urban geography / environmental history to the college campus context. Students in cultural geography, urban planning, and environmental/sustainable studies courses will be afforded the opportunity to design place-based research in urban and environmental history, but also to visually communicate these stories *to the public and through public space*.

¹ Kenny, D. R., R. Dumont, and G. S. Kenney. 2005. *Mission and Place: Strengthening Learning and Community Through Campus Design*. Lanham, MD: Rowman & Littlefield Publishers.

In the first proposed use of this technology students will be tasked with a project titled “projecting change.” The goal of this project is to make the otherwise incomprehensible spatial and temporal scale of environmental change sensible to human bodies. This project will get students engaged the themes of extinction, environmental change, and earth history, which are emphasized this year in the Rowan Common Reading selection of Elizabeth Kolbert’s book *The Sixth Extinction* (nominated by the School of Earth and Environment). The documentary film *Racing Extinction*, another inspiration, profiles artists who project images of endangered species on iconic urban surfaces, such as the [Empire State Building](#). Students will explore the possibility of utilizing 3D models of fossils discovered at the Edelman Fossil Park in projection mapping software as part of creating a Meditation Walk video projection. Rather than simply reading about the species that once inhabited what is now south Jersey during the Cretaceous period, imagine the visceral effect of a 35-foot long Mosaasur swimming down Mediation Walk!

This proposal is **scalable** and **adaptable** because the equipment purchases can be used for completely different course curriculum, class sizes, disciplines, and learning environments. The technology is completely programmable by any discipline to engage with a vast array of concepts and topical themes. Ideally, this proposal will pilot the use of projection mapping on campus with two projectors, in the hope that long-term, projection becomes a cultural practice at Rowan University. Not only will this technology afford profoundly new ways for students to conduct and present research, ideally, it will transform the social life of campus in public space. Students will be tasked with learning the best practices and uses of projection mapping as well as how to navigate the permission process on campus (or help devise one if it doesn’t yet exist) for the use of outdoor, nighttime, projection mapping events/display. Despite the possibilities of this technology, limitations and policy implications must also be considered as part of any kind of cultural and social programming in public space.

6. Required Academic Technology support: Technology support (and permission) will likely be needed for the temporary outside installation of a projector.

7. Plans for evaluating and sustaining the innovation: Evaluation of the innovation will take place through intercept surveys to assess the impacts of student projection videos among passersby. It is expected that the visceral impact of projection mapping will exceed other means of science education but students will be tasked with testing this hypothesis. Additionally, students will complete their own course-related evaluations of the software and hardware as part of devising guidelines for projection mapping on campus. This initial pilot project is intended to test the best applications of projection mapping both in learning specific concepts in geography, planning, and sustainability but also in terms of the most efficient and effective use of this technology for creative placemaking. If successful, this could also become a long-term tool for piloting urban planning and design changes at Rowan University. For example, prior to the installation of a new public artwork on campus, several different prototypes could be projected onto the site of the final selection, as part of a participatory planning process. Or, a proposed bike bath or walk-only zone could be projected onto part of campus prior to official construction as a way to glean the visibility and viability of particular design or route features.

8. Budget:

InFocus IN3138HDq 4000 Lumen Full HD 3D DLP Media Projector \$999 x 2	\$ 1998.00 total
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