Experiential Design – Rethinking relations between people, objects and environments

• Paper / Proposal Title:
“Ideation generates STEAM for middle school in Columbia, MO”

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• Abstract (300 words):
Opportunities for students to work with communities during times of cultural shift are rare. Curating the delivery of a design studio to be mutually beneficial for students and clients is difficult. Architectural Studies students at the University of Missouri partnered with the Columbia STEM Alliance and Columbia Public Schools to explore the transition of Jefferson Middle School (JMS) to a STEAM-based magnet school. We were able to collaborate with JMS during ‘year zero’, the inaugural year of weaving a STEAM curriculum into existing pedagogy. Our design program was uniquely situated to facilitate the discussion between all parties. An excellent example of project-based and active learning, this partnership provided student engagement with clients as well as real-world troubleshooting for existing conditions.

Students were able to translate their knowledge of effective learning environments to aid in the transformation of a neglected school with a new agenda. Our team developed a comprehensive scope of this transition: including but not limited to identification of key
elements in a STEAM magnet school, curation of curriculum that will support this mission and the effect of existing and new infrastructure on these goals. Building Information Modeling and collaborative learning infrastructures were critical components of our process. Balancing tangible and visionary elements of the program with desired technical and creative components, we were able to prioritize essential issues and propose meaningful interventions that will positively influence the conditions at JMS.

In its 120 year history, various non-comprehensive additions and renovations to JMS have resulted in a complex maze of inefficient spaces, minimal accessibility, confusing wayfinding, limited security, and challenging travel distances for occupants. Our partnership allowed us to generate data and prototypes that enable the school district to capitalize on their opportunity for growth, intelligently support effective learning environments, and drastically impact their community.

• Author(s) Biography (200 words each):

Lyria Bartlett, is an Assistant Teaching Professor of Architectural Studies at the University of Missouri at Columbia. She holds two Master’s Degrees, one in Architecture from Washington University in St. Louis and the other in Art History from the University of Missouri. She is a licensed or certified professional in the fields of architecture, interior design, sustainability, positive coaching, and structural assessment after disasters. Her research interests include Design Process, Design Pedagogy, Fabrication, Learning Environments, Positive Coaching, Creativity, Sustainable Technology, Professional and Community Relationships. She is the head coach for the 4x National Champion Rock Bridge High School dance team. Bartlett advises undergraduates, teaches classes, and oversees the Building Technology Lab for the Department of Architectural Studies. She has developed and taught a range of undergraduate courses and community workshops including design thinking at all levels, building technology labs, architectural programming, and construction documentation with Building Information Modeling (BIM) technology. She serves as liaison between the department, community colleges and Columbia Public Schools (CPS). She works closely with students and practitioners to prepare Mizzou graduates for careers in architecture, interior design and other design-related professions. Along with her other activities, Bartlett devotes significant time and energy to service – not only contributing to her field through professional organizations, but also working in the local community with the Columbia STEM Alliance, the transition of Jefferson Middle School to a STEAM magnet school and the “STEAM Bus” project, in which a retrofitted school bus offers learning opportunities to the community.