• Paper / Proposal Title:

Communicative Learning as an Integrated Factor of Design: Teaching Soft Skills in a Design Studio

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• Abstract (300 words):

“Communicative learning involves at least two persons striving to reach an understanding of the meaning of an interpretation or the justification for a belief. Communicative learning involves understanding purposes, values, beliefs, and feelings ... it becomes essential for learners to become critically reflective of [underlying] assumptions.” – Jack Mezirow

Complex design problems rely on communicative skills that build empathy through understanding, rather than reify disciplinary tensions. While these ‘soft skills’ are critical, they are not yet a fundamental part of design education. Design studio courses in undergraduate education craft simplified simulations of professional practice experiences to explore formal, organizational, conceptual and technical design approaches. One common simplification is for each discipline to learn independently in isolated courses, without being informed by the realities of multi-disciplinary practice. ‘Communication’ in these siloed studios refers to drawings and verbal presentations that convey student ideas to faculty or reviewers, with an emphasis on disciplinary
conventions and graphic skills, and use of discipline-appropriate language. Yet successful communication in practice requires complex and inclusive skills beyond the products of design, and leverages both interpersonal (between) and intrapersonal (within) communication skills in order to advocate for disciplinary values and needs during design negotiations.

This paper describes the course design and outcomes for an interdisciplinary (architecture, landscape architecture, and structural engineering) studio at California Polytechnic State University, San Luis Obispo. The studio took a transformative (communicative) learning approach to development of communication skills such as empathy, resilience, flexibility, and competence-based trust as integrated factors of design. Lectures, activities, and readings scaffolded the learning of these ‘soft skills’ in the studio, and grading evaluated communicative skills as equal to attainment of design goals. Outcomes were measured using several instruments, including surveys, writing assignments, and presentation prompts that focused on describing interactions between the disciplines rather than on design product.

- **Author(s) Biography (200 words each):**

Ellen Burke PLA, LEEP AP

Ellen Burke is a licensed landscape architect and Assistant Professor of Landscape Architecture at California Polytechnic State University, San Luis Obispo. Her practice and research focuses on socio-ecological resilience and regeneration in the built environment. She has an interest in exploring non-normative modes of practice, and believes landscape architecture is a medium for re-establishing connections between people and the land. She holds a Masters of Landscape Architecture from Harvard University Graduate School of Design, and a Bachelor of Arts in Film Studies from Vassar College. Her research investigations have been funded by ArtPlace America and the Landscape Architecture Foundation.

Jennifer Shields AIA

Jennifer Shields is a Registered Architect and Assistant Professor of Architecture at California Polytechnic State University, San Luis Obispo. Her research and teaching are interdisciplinary, engaging colleagues and students from other disciplines to investigate the relationship between graphic representation methods and spatial perception. Her first book, Collage and Architecture, was published by Routledge in 2013. She is the lead editor for the forthcoming book entitled Environmental Design: An Anthology (Cognella 2019), co-edited by Ellen Burke and Michael Lucas. She received a Bachelor of Science in Architecture from the University of Virginia (2000) and a Master of Architecture from the University of Virginia (2004). Before moving to San Luis Obispo in 2015, Jennifer worked as an Architect in Charlotte, NC and Visiting Assistant Professor at the University of North Carolina, Charlotte.
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Jill Nelson is an Associate Professor in the Architectural Engineering Department at the California Polytechnic State University, San Luis Obispo. She obtained her B.S. in Civil Engineering from the University of Nevada, Reno and her M.S. in Civil Engineering from the University of Washington. She is a registered Structural Engineer and Professional Engineer (Civil) in California and Washington with over 20 years of design and management experience in the public and private sector.