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"Design?"

Over the last year I have had the opportunity to assist as a teaching associate for four geographic information systems and science courses in the department and have also had the opportunity to conduct my own introduction to geographic information systems course this past summer. My interests in this gathering are driven by the experiences I have had working with students from various departments on campus.

The reach of the Geography Department's Geographic Information Systems and Science upper division undergraduate course series has grown in remarkable ways over the last few years. We are seeing more and more students interested in the series and these students are originating from outside of the geography department. Notably, students from Anthropology, Sociology, Political Science, Communication, and History of Art and Architecture are growing in enrollment – all of which have expressed interest in the built environment. With street center lines, parcels, building footprints and socioeconomic data appearing in arguable every GIS course with structured labs, implementing design as viewed through the lens of urban planning seems ripe with opportunity. From what angle do we approach this? Student driven projects this past year have addressed elements of landscape architecture, emergency response routing based on campus long range development plans, building interior use case assessments and 3D modeling along with a host of other analyses that touch upon design elements.

When assisting students with various site suitability analyses, I often wonder what the unintended consequences are for our exercise driven decisions to site a business at a particular location, a park in an urban expanse, or even a labyrinth on campus. While we take into account networks, viewsheds, and target demographics, the GIS has no built in knowledge of design elements. At no time will you receive any decision support related error messages alerting you to key design concept that have been violated. The software performs exactly as directed, which may be something that we want to maintain; leaving the intersection of design and spatial thinking to instruction in the classroom.

In my experiences with students in the classroom, reoccurring themes driven by real world examples to demonstrate concepts help to solidify understanding. With limited time to convey a host of conceptual foundations, where does design fit? I would hope to approach design in a way that would allow it to be intricately woven into the spatial concepts and foundations that are already at the core of instruction, as opposed to setting it aside as a standalone lecture.