

# Interactive Synchronicity - A Participatory Installation Revealing Visual Responses from Acoustical Impulses

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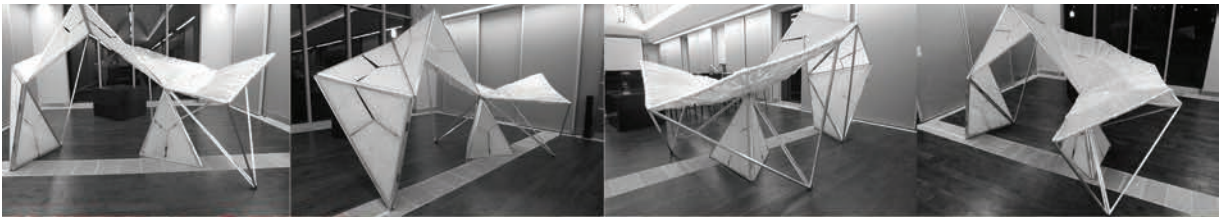
Professors and practitioners typically evaluate students' small-scale models and drawings by referencing knowledge rooted in personal experiences of full-scale spaces with similar materials and properties. Although necessary as a common instructional denominator, this is not the only method of imparting knowledge. The language, development, and methods of architecture can be complemented by full-scale interactive constructs, serving as platforms for augmenting cumulative learning through participatory, experiential, and sometimes experimental means.

Architecture is a dynamic framework of research, analysis, and execution, providing a specific sculpted experience. Congruent with Constantin Brancusi's proclamation, "architecture is inhabitable sculpture," interaction with architecture is necessary for personal experience. The five human senses inform first-person participants, determine opinions, and subsequently conjure emotions. Opportunities to build full-scale constructs quickly introduce students to a series of challenges predicated by structure, connections, safety, and a spirit of inquisition to learn through interaction.

The University of Oklahoma College of Architecture and student chapter of AIA annually sponsor C3 Week; five days of activities, guest lectures, and exhibits focused upon supporting collaboration, creativity, and construction. To promote the events, a student-designed and constructed installation is placed on display in the college's gallery for campus-wide appreciation. Students are encouraged to demonstrate lessons learned, be creative, invite participation, and rouse commentary. The 2013 C3 Week installation was an interactive intervention undertaken by four students, allowing visual translation of acoustical impulses to educate, entertain, and evoke continued interest in architectural sensory design. The students developed and calibrated the installation based upon the gallery's lively acoustics and outward display to the campus, employing excessive reverberation time and resonance as a method of visually demonstrating the persistence of sound waves beyond typical human hearing ranges.

The amalgamation of aluminum angles, frosted acrylic, cellophane, LED lights, and acoustical sensors defined particular textures, translucencies, material intricacies, and relational adjacencies only conveyable via the full-scale interaction. People quickly realized the lights were triggered by airborne impulses such as voices or laughter, impact impulses such as footfall or slamming doors, and equated continual light flutter to lingering impulses outside human perception. Some participants were instantly provoked to make more or specific sounds to cause illumination, while others attempted to cease the dancing lights. People physically inhabiting the space were the participants and critics – not by their words as comments in a formal jury setting, but by their real-time reaction to their personal interaction. The students provided an amplified speaker tower, allowing observers and participants the ability to project samples of music as a method of interacting with familiar media. The various frequencies triggered a tempo-driven synchronized motion of lights, inciting impromptu moments of karaoke.

The learning process complemented studio-based instruction by reiterating an awareness of health, safety, and welfare through hands-on building and interaction with physical materials and elevated architectural education to a series of interactions with people. This poster celebrates the 2013 C3 Week project as a teaching tool outside the common formats of studio project representation while enticing classmates, faculty, and complete strangers to interact with inhabitable space.



**INTERACTIVE SYNCHRONICITY** a participatory installation revealing visual responses from acoustical impulses

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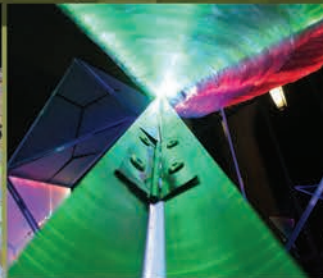
**sound is allowed to be visual**

**Daniel J. Bulko** - Assistant Professor of Architecture  
**Bud Hardage** - 4th year undergraduate student  
**Michelle Oliphant** - 2nd year undergraduate student  
provided by students Grant Barkleton and Brent Sill

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*"Interaction endorses learning, defining experience beyond mere aesthetics."*

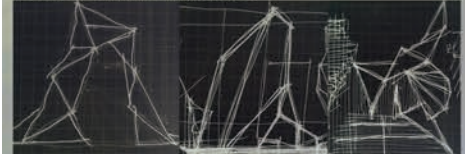


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*"architecture is inhabitable sculpture"* - constantin brancusi