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“Interior Design Internships: The Role of Professional Mentoring in the New Economy”

OUTSTANDING STUDENT PRESENTATION ABSTRACT AWARD
Susan Webster
University of North Carolina, Greensboro
“An Evaluation of the Cognition of Persons with Dementia after Interaction with Natural Elements”

OUTSTANDING CREATIVE SCHOLARSHIP AWARD
Jeanne Mercer-Ballard, Chip Williams, Summer Whitney, and Hunter Smith
Appalachian State University
“The Doors of Hound Ears”

OUTSTANDING POSTER ABSTRACT AWARD
Alex Leadon
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Lost in Translation: Exploring How Designers Process Research Findings
Amy Huber, Florida State University
Designers generally value research; however, project demands may truncate research efforts. This study explores how designers process information and their ideas for disseminating research findings.

Wayfinding Preferences in the Built Environment: Age, Gender, and Culture Related Differences
Kristi Julian, East Tennessee State University
Jessica Abdelnour, East Tennessee State University
The purpose of this research was to identify wayfinding features related to gender, age and culture in order to help designers make more informed decisions.

Fitting In: The Growing Ergonomic Impact of Changing Population Size on Planning and Specification for Interior Environments
Kristi Julian, East Tennessee State University
Cathy Hillenbrand-Nowicki, High Point University
The panel investigates the impact of changing average body size on codes, clearances, regulations and specifications for interior space planning.
Panelist: Jessica Etheredge, University of Tennessee at Chattanooga
Bernie Lynch, ErgoGenesis Workplace Solutions
Taneshia West Albert, ARCH Framing and Design
Mike Bartholomew, ErgoGenesis BodyBilt Seating and Workplace Solutions

Disarming the Bomb of Millennial Stress in the Interior Design Curriculum: A Discussion on Effective Strategies
Catherine Kendall, University of Tennessee at Chattanooga
Jessica Etheredge, University of Tennessee at Chattanooga
Dana Moody, University of Tennessee at Chattanooga
An exploratory look at effective strategies that increase retention and minimize classroom stress, anxiety, depression, and self-esteem issues common with Millennial students.
Panelist: Ruth Beals, Converse College
Jill Pable, Florida State University
Stephanie Sickler, University of Alabama
Lauren Trujillo, Sanford Brown College/Art Institute
Roberto Ventura, Virginia Commonwealth University

Color Pedagogy in Interior Design: How much do students know about environmental color, and what do they perceive as the value and role of color across market sectors?
Genesis Okken, University of Florida
Margaret Portillo, University of Florida
This exploratory study was aimed at evaluating the perceived value and understanding of environmental color within different market sectors among interior design students.

Oasis in a Food Desert: The New Urban Farm and its Implications for Interior Design
Kelley G. Robinson, Florida State University
Jill Pable, Florida State University
This research involves a study of how the built environment can support a new food distribution system that increases access to healthy food.

Designing for Diversity: Campus Design Preferences of International and Domestic Students
Lauren Trujillo, Sanford Brown College/Art Institute
Lisa Waxman, Florida State University
This research explored how the built environment at an American university can support intercultural connections among domestic and international students.

An Evaluation of the Cognition of Persons with Dementia after Interaction with Natural Elements
Susan B. Webster, University of North Carolina Greensboro
Research regarding the built environment and persons with dementia (PwD) typically explores techniques that allow buildings and furnishings to compensate for declining cognitive abilities of users. This study explores the environment's potential to stabilize or improve cognitive function.
SCHOLARSHIP OF TEACHING & LEARNING

Students Define Problems in Real World Programming
Janis Brickey, Middle Tennessee State University
Students "deep dive" to evaluate and document state park to be renovated. Findings were presented at state capital to officials.

Value of research in the interior design studio: Student perspectives
Sibel Seda Dazkir, Georgia Southern University
This pilot study is focused on interior design students' use of research and their attitudes towards value of research in their design process.

Structuring an Interdisciplinary Studio: A Study Between the Disciplines of Art and Design
Dawn Haynie, Georgia State University
Given trends in practice that lean towards an interdisciplinary approach, structuring a studio course, which allows for communication and exploration, is critical to insuring our student’s success.

Students Who Give a Damn: Encouraging the Next Generation of Designers Through Community Engagement
Travis Lee Hicks, University of North Carolina Greensboro
Students in a CIDA-accredited interior architecture program engage a number of community partners in projects through a fourth year design studio and a departmental symposium.

Storytelling: A Potential Technique to Secure the First Design Job and Beyond
Amy Mattingly Huber, Florida State University
Jill Pable, Florida State University
Annette Jones, Milkbox
Jonathan Rae, HOK Tampa
Storytelling is a potentially powerful approach for students’ portfolios and verbal selling strategies that can set them apart in a competitive design job market.

Active Learning in a Historic Neighborhood: a Residential Design Studio Pedagogy
Beth McGee, University of Florida
A residential studio project introduced sustainability and human-centered design through active learning with the use of historic homes.

Precedent, Industry Partnership, and Competition: A Case Study in Furniture Design
William Riehm, Mississippi State University
This presentation reviews a student furniture design competition aligned with Knoll furniture in terms of precedent and industry partnership.

Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?
Steven B. Webber, Florida State University
Flipping a construction systems course produces notable improvements to student learning outcomes, and in the process casts doubt on the meshing theory of learning styles.

CREATIVE SCHOLARSHIP

Tower Base
Amy Boyett, Georgia Southern University

Content(s) Drawer #D2 PKDT – F.R. – G.S.
Tad Gloeckler, University of Georgia

Babel Amidst an Arising
Thom Houser, University of Georgia
The Doors of Hound Ears
Jeanne Mercer-Ballard, Appalachian State University
Chip Williams, Appalachian State University
Summer Whitney, Appalachian State University
Hunter Smith, Appalachian State University
PaperSPACE,
Sarah Zenti, University of Georgia

POSTER PRESENTATIONS

Sustainability and Healthcare: Past, Present, and Future
Sara Bayramzadeh, University of Florida
Min-Kyoung Kim, University of Florida
This study is a literature review of overlapping areas between healthcare and sustainability by assessing existing research and offering directives for future research.

Designing of Information Grounds in a College Town as a Medium for Facilitating Communication and Social Interaction
Kyoungmee Byun, University of Louisville
Designing of place-related information grounds in a college town as a medium for facilitating communication and social interaction

Empowering Our Elders: Exploring the Role of the Skilled Nursing Built Environment
Mary Katherine Crouch, Florida State University
Jill Pable, Florida State University
This study explores the built environment’s role in perceived empowerment by skilled nursing residents focusing on how that empowerment may improve elders’ quality of life.

Workplace Design: Facilitating Collaborative and Individual Work Environments
Alexandra Leadon, Florida State University
Lisa Waxman, Florida State University
This study explores the design characteristics that facilitate collaborative and individual work in the creative workplace environment.

How Can I Change The World?: Exploring High Impact Creative Learning Experiences Across Majors with Implications for Interior Design
Jaehae Lee, University of Florida
Daejin Kim, University of Florida
The purpose of this study is to explore the efficacy of creativity training techniques and to compare the impact of these techniques by major and background demographics with recommendations for interior design pedagogy.

Domestic Violence Shelters: Exploring the Interactions of Design, Rules, and Resident Empowerment
Katrina Rutledge, Florida State University
Jill Pable, Florida State University
It’s possible domestic violence shelters are led to create disempowering rules for residents due to their adverse environmental design. This study explores these potential relationships.

Millennials & Home: Understanding the Needs of the Millennial Generation in their Housing Environment
Katherine Timmerman & Steve Webber, Florida State University
This study intends to understand the Millennial generations physical and social needs as they relate to their housing environment.

Architectural Survey and Analysis of Day Care Facilities for Persons with Dementia
Susan B. Webster, University of North Carolina Greensboro
A survey of ten adult day care facilities was conducted to gather information that would provide direction for designers who create therapeutic environments for patients with dementia (PwD).
SCHEDULE

Thursday, October 23, 2014
4:00-5:30pm   Registration
5:30-7:00 pm   Welcome Social

Friday, October 24, 2014
8:00–8:50 am   Registration & Continental Breakfast
9:00–9:20 am   Welcome and Introductions
Lisa Waxman, Interior Design Department Chair
Peter Weishar, Dean, College of Visual Arts, Theatre, and Dance
Welcome by Regional Chair, Jessica Goldsmith
Student Furniture Design Charrette Details, Marlo Ransdell
9:20–10:20 am  Keynote by Chris Bruning, President of Groovy Stuff
10:20–10:30 am  Break
10:30–3:00 pm   Student Charrette

PRESENTATIONS

10:30–11:00 am  Session 1
Environmental Literacy in the Teaching Green School Building
Laura Cole, University of North Carolina Greensboro

Structuring an Interdisciplinary Studio: A Study Between the Disciplines of Art and Design
Dawn S. Haynie, Georgia State University

11:00–11:30 am  Session 2
Sustainable Preservation: Exploring LEED for Neighborhood Development in a Historic Neighborhood
Travis Lee Hicks, Catherine French, Joylyn Troyer, University of North Carolina Greensboro

Value of research in the interior design studio: Student perspectives
Sibel Seda Dazkir, Georgia Southern University

CREATIVE SCHOLARSHIP

10:30–10:50 am  Session 1
The Doors of Hound Ears
Jeanne Mercer Ballard, Chip Williams, Summer Whitney, & Hunter Smith, Appalachian State University

10:50–11:10 am  Session 2
Tower Base
Amy Boyett, Georgia Southern University

11:10–11:30 am  Session 3
PaperSPACE,
Sarah Zenti, University of Georgia
PANEL DISCUSSION
11:35–12:35 pm
Disarming the Bomb of Millennial Stress in the Interior Design Curriculum: A Discussion on Effective Strategies
Catherine Kendall, Jessica Etheredge, Dana Moody, University of Tennessee at Chattanooga

Panelists:
Ruth Beals – Converse College
Jill Pable, Florida State University
Stephanie Sickler – University of Alabama
Lauren Trujillo, Sanford Brown College/Art Institute
Roberto Ventura – Virginia Commonwealth University

PRESENTATIONS
11:35–12:05 pm
Session 1
How do Technology - Integrated Classrooms Impact the Student Learning Experience?
Sara Bayramzadeh, University of Florida & Margaret Portillo, University of Florida

Precedent, Industry Partnership, and Competition: A Case Study in Furniture Design
William Riehm, Mississippi State University

12:05–12:35 pm
Session 2
An Assessment Comparing Introduction to Design Fundamentals and Digital Design Software in Interior Design Education
Eric Dolph, Buffalo State College

Active Learning in a Historic Neighborhood: a Residential Design Studio Pedagogy
Beth McGee, University of Florida

12:35–1:35 pm
Lunch

PANEL DISCUSSION
1:40–2:40 pm
Fitting In: The Growing Ergonomic Impact of Changing Population Size on Planning and Specification for Interior Environments
Kristi Julian, East Tennessee State University
Cathy Hillenbrand-Nowicki, High Point University

Panelists:
Jessica Etheredge, University of Tennessee at Chattanooga
Bernie Lynch, President, ErgoGenesis Workplace Solutions
Taneshia West Albert, ARCH Framing and Design
Mike Bartholomew, Vice President of Sales, ErgoGenesis BodyBilt Seating and Workplace Solutions

PRESENTATIONS
1:40–2:10 pm
Session 1
Promoting The Opportunity For Wellness: The Integration Of Biophilic Design And Restorative Healing Aspects Into Urban Built Environments
Amanda Cleveland & Jim Dawkins, Florida State University

2:10–2:40 pm
Session 2
Using Cross - Disciplinary Research to Design Holistically: The Application of a Preliminary Framework of Holistic Wellness Design in a Pediatric Oncology Facility
Heather Dodd, Florida State University
PANEL DISCUSSION  
2:45-3:45 pm  
Storytelling: A Potential Technique to Secure the First Design Job and Beyond  
Amy Mattingly Huber & Jill Pable, Florida State University; Annette Jones, Milkbox; Jonathan Rae, HOK Tampa

PRESENTATIONS  
2:45-3:15 pm  
Session 1  
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?  
Steven B. Webber, Florida State University

3:15-3:45 pm  
Session 2  
Color Pedagogy in Interior Design: How much do students know about environmental color, and what do they perceive as the value and role of color across market sectors?  
Genesis Okken & Margaret Portillo, University of Florida

3:45-4:15 pm  
Students Display of Design Charrette

4:15 pm  
Student Session  
The Potential Of Storytelling In Securing Your First Design Job  
Annette Jones, Milkbox & Jonathan Rae, HOK, Tampa

6:15 pm  
Reception Dinner

Saturday, October 25, 2014  
8:00–8:50 am  
Registration & Continental Breakfast

9:00–9:10 am  
Welcome and Announcements

PECHA KUCHA  
9:15–9:45 am  
Innovative Teaching Ideas Presented in a Fun and Fast-Paced Format

Atypical Habits  
Ruth Beals, Converse College

Design Concept: A Strategy For Its Introduction, Deep Understanding and Application  
Jill Pable, Florida State University

Strategies for Bringing Excitement And Fun To An Otherwise Lackluster Course  
Katie Rothfield, Florida International University

Authentic Interaction: A Real World Interdisciplinary Design Project  
Charles Boggs, SCAD

From Parti to Design Solution  
Jane Hughes, Converse College

9:45–10:45 am  
South Regional Business Meeting

10:45–11:15 am  
Kip Altstaetter, Texas Oklahoma Chapter of IIDA, Conference Sponsor  
CONNECT to IIDA Student Conference 2015

11:15–11:30  
Break
PRESENTATIONS

11:30–12:00 pm  
**Session 1**  
**Students Who Give a Damn: Encouraging the Next Generation of Designers Through Community Engagement**  
Travis Lee Hicks, University of North Carolina Greensboro

**Lost in Translation: Exploring How Designers Process Research Findings**  
Amy Huber, Florida State University

12:00–12:30 pm  
**Session 2**  
**Oasis in a Food Desert: The New Urban Farm and its Implications for Interior Design**  
Kelley G. Robinson & Jill Pable, Florida State University

**Interior Design Internships: The Role of Professional Mentoring in the New Economy**  
Kenan Fishburne, Florida State University

CREATIVE SCHOLARSHIP

11:30–11:50 am  
**Session 1**  
**Content(s) Drawer #D2 PKDT – F.R. – G.S.**  
Tad Gloeckler, University of Georgia

11:50–12:10 pm  
**Session 2**  
**Babel Amidst an Arising**  
Thom Houser, University of Georgia

12:30–1:30 pm  
**Lunch**

POSTER SESSION

**How Can I Change The World?: Exploring High Impact Creative Learning Experiences Across Majors with Implications for Interior Design**  
Jaehae Lee & Daejin Kim, University of Florida

**Sustainability and Healthcare: Past, Present, and Future**  
Sara Bayramzadeh & Min Kyong Kim, University of Florida

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**Architectural Survey and Analysis of Day Care Facilities for Persons with Dementia**  
Susan B. Webster, University of North Carolina Greensboro
PRESENTATIONS

1:35–2:05 pm  
**Session 1**

*Students Define Problems in Real World Programming*
Janis Brickey, Middle Tennessee State University

*The LED Revolution: Current Lighting Textbooks—Content*
Ruth Beals, Converse College

*Designing for Diversity: Campus Design Preferences of International and Domestic Students*
Lauren Trujillo, Sanford Brown College/Art Institute & Lisa Waxman, Florida State University

2:05–2:35 pm  
**Session 2**

*What Studio Practices do Students Believe Influences Their Design Development Process?*
Jessica Goldsmith, Radford University

*An Evaluation of the Cognition of Persons with Dementia after Interaction with Natural Elements*
Susan B. Webster, University of North Carolina Greensboro

*Wayfinding Preferences in the Built Environment: Age, Gender, and Culture Related Differences*
Kristi Julian & Jessica Abdelnour, East Tennessee State University

2:40 pm  
Final Reminders
Conference Adjourned
ABSTRACTS

SCHOLARSHIP OF DESIGN RESEARCH

* All References are formatted per the APA Guidelines, unless stated otherwise.
How do Technology-Integrated Classrooms Impact the Student Learning Experience?

Sara Bayramzadeh, University of Florida  
Margaret Portillo, University of Florida

In the age of fast pace growing technology, a need to understand the impact and implications of such new learning environments remains relatively unsubstantiated. The claim that technology-mediated classrooms improve the learning experience needs to be examined. For example, Taylor (2009) explains that a technologically enhanced environment can encourage new learning approaches among instructors. This may lead to a more active and positive learning experience for students. On the other hand, technology is known to provide a level of innovation to any settings, and innovation is necessary in stimulating new activities within the class for the purpose of improved learning. In their study, Salter, Thomson, Fox, and Lam (2013) emphasize on the application of technology as stimuli for such activities generated by both instructors and students, which as a result leads to improved learning experience. Further Fox and Lam (2012) found that an effective lab space must accommodate flexibility and comfort to facilitate the learning experience. How effective is technology a viable resource to provide this accommodation and therefore improve the learning experience? In what ways does technology improve the learning experience? To answer these questions, a case study of a technology-mediated classroom was conducted. This case study explores the integration of technology in a classroom installed with Mediascape technology and furnishings at a public university in the Southeast. This classroom was designed in 2011 to promote a new paradigm of collaborative learning with technology-mediated facilities. The technology-supported space is reserved for design, and planning courses and is designed to encourage collaboration among students and hands-on activities. This space prototypes a new type of learning environment in higher education. Through content analysis of IRB-approved student surveys that offered an evaluation of the space as well as through interviews with instructors who used the spaces strengths as well as suggestions for improvement emerged. The assessment data was collected in three semesters between fall 2011 and fall 2012 in an undergraduate introductory interior design course on design innovation. The content analysis revealed key theme including each representing a different aspect through which the learning experience is enhanced by integration of technology in the classroom. Such categories include but are not limited to “encouraging collaboration and teamwork”, “improved learning experience”, and “technology supports improved ideas”. The overall results suggest that this type of environment supports key student learning outcomes, including collaboration and teamwork; however, specific areas for improvement surfaced as well from both students and instructors.

REFERENCES


The LED Revolution: Current Lighting Textbooks—Content

Ruth Beals, Converse College

Light emitting diode (LED) technology is changing the lighting industry. This new light source is unique among former lighting sources. The light is emitted through solid state technology and the light delivery system employs unique optical controls. LEDs are about 1 mm in size, energy efficient and deliver a high efficacy. They are point sources and ganged to be used as linear sources and within translucent panels as planar sources. An important industry change is that lighting fixture manufacturers are now involved in the design of this source and the fixture, supplying the LEDs and the fixture as an integrated unit. These manufacturers are able to produce housings and reflector systems that use new optic solutions within innovative shapes. The fixtures are not dependent on the shapes of incandescent and gaseous discharge lamps. Lighting design has been revolutionized by LED technology. Interior design educators need to integrate LED technology and lighting systems within lighting courses to prepare students for the wondrous design opportunities in their futures. Lighting textbooks that have current information are needed. This study of the most current lighting textbooks, published between 2012 and 2014, addresses the question: do recently published lighting design textbooks have LED technology integrated into their content? This study of current lighting design textbooks was conducted using a content analysis methodology to identify LED content. Only four current lighting design textbooks were identified by keyword and title searches within sites for textbook sales and publishers. Two of the textbooks were published in the USA and two were published in the UK. The methodology was applied through a page by page survey of four lighting design textbook for the term: LED. The findings were compared with the pages listed under LED in the index of each textbook. The findings were then collated and organized under the textbooks’ table of content listings of chapter titles and subheadings. Additional analysis proved that prior editions of two of these textbooks had little or no LED information included. The conclusions demonstrated that LED technology was integrated into these four textbooks. The study provides an overview of the LED content primarily within sections on technology and applications in each textbook; how the different authors separate content on light, lighting design, and the technology of sources and fixtures; and content that could be added within these three broad categories. The findings can assist interior design educators with selections of lighting textbooks that have current LED technology and with development of lighting curriculum content.

REFERENCES
Promoting The Opportunity For Wellness: The Integration Of Biophilic Design And Restorative Healing Aspects Into Urban Built Environments

Amanda Cleveland, Florida State University
Jim Dawkins, Florida State University

When people reach a critical point of frustration, anxiety or tension they speak about removing themselves from their psychological pressures by “escaping from it all”. Research shows that this especially occurs to those engaged in highly stimulating environments such as dense urban settings. According to Rachel and Stephen Kaplan, this is often a way to express a need for change in environments, venues, or scenery and is described as “mental fatigue”. This experience is a worn-out state, which often precedes a period of intense effort, anxiety or worry, or an overwhelming task and is generally not physical (1989). Kaplan and Kaplan explained in their text The Experience of Nature that the desire to experience a sense of renewal can be achieved through two different means: rest and escape (1989). Responding to the state of mental fatigue that people often encounter, the Kaplans developed a framework for “restorative environments” by analyzing the aspects of an environment that were most conducive to psychological restoration. The study’s findings were modeled into four central categories surrounding human behavior in natural environments that later defined the four aspects of a restorative environment (see Appendix A). The connection between human beings and nature suggests a theory that human evolution has been dependent on the natural environment for a sense of overall well-being and personal fulfillment since the beginning of mankind (Kellert, 1993). This interconnectedness continues to be a bond that reinforces the deep affinity people experience with life and life-like processes and has been termed the “biophilia hypothesis” (Wilson, 1984).

According to research, this relationship has shown to be a critical component in fostering human health and well-being, and when elements promoting this connection are integrated into the built environment it is known as biophilic design (Kellert, 2008). Recognizing the need for restorative healing environments in urban settings where nature has been severely withdrawn from interiors and architecture and where mental fatigue is prominent, this researcher’s master’s thesis has proposed a biophilic design and restorative healing environment framework (see Appendix B), integrating the two design models into one symbiotic urban context. Using the framework as a primary research filter, the researcher investigated biophilic design attributes and their perceived effectiveness as they pertained to the success of a theoretical restorative healing environment. This research study and solution intended to showcase a design paradigm that promoted a symbiotic relationship between nature and the built environment while addressing humans’ psychological, physical, and spiritual well-being and restore the human-nature connection that has been lost in the urban built environment. This presentation will illustrate the findings and proposed design solution synthesizing the research study’s data and design application. The resulting discussions between the researcher and the audience could lead to greater comprehension of how biophilic design can more successfully become a model for restorative healing environments and possibly encourage the restoration of the human-nature connection within the urban environment, supporting the population’s overall well-being.

REFERENCES
## Appendix A

### Restorative Environment Aspects

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<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Escape</strong></td>
<td>The term escape refers to the ability to get away from some involved endeavor that is normally present. In an urban environment, this references noise, crowding, chaos, and even the everyday routine of work. This is also an expression of the desire to take a mental and/or physical rest from pursuing a certain purpose or task.</td>
</tr>
<tr>
<td><strong>Concept of connection &amp; extent</strong></td>
<td>Although connectedness is achieved through the individual’s interrelatedness with the environment as a whole, extent is achieved through the experience that is being presented and the promise of continuation beyond that which is initially perceived.</td>
</tr>
<tr>
<td><strong>Fascination</strong></td>
<td>Fascination is stimulated by an act of involuntary attention, “attention that requires no effort at all such as when something exciting or interesting happens and [an individual] looks to discover what is going on” (Kaplan, R. &amp; Kaplan, S., 1989, p. 179).</td>
</tr>
<tr>
<td><strong>Action &amp; Compatibility</strong></td>
<td>Stephen Kaplan (1982) states that an environment must offer compatibility with the individual’s inclinations and actions required by the environment (as cited in Kaplan, R. &amp; Kaplan, S., 1989).</td>
</tr>
</tbody>
</table>

(Kaplan, R. & Kaplan, S., 1989)

## Appendix B

### Biophilic Design / Restorative Healing Environment Framework

[Diagram of Biophilic Design / Restorative Healing Environment Framework]

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Environmental Literacy in the Teaching Green School Building

Laura Cole, University of North Carolina Greensboro

David Orr posits that “academic architecture is a kind of crystallized pedagogy and…buildings have their own hidden curriculum that teaches as effectively as any course taught in them” (Orr, 2004). Through his provocative writings on the pedagogy of architecture, Orr offers a call-to-action for green building scholars and practitioners to investigate the educational potential of the built environment (Orr, 2002). With a focus on the experiences of youth, the work presented here contributes to this larger question of how green buildings teach us about themselves and the greater prospects for environmental stewardship. This presentation will report findings from a two-year study in which the researcher followed middle school students from a conventional school building into a new construction green building designed as a "teaching tool" for environmental education (Cole, 2013). The study focuses on four major features of environmental literacy: knowledge, affective dispositions, behaviors, and educational context, comparing the study school to its own baseline and to another local, non-green school. The research design employed a mixture of methods including survey research (n=124) and a student photography project (n=33) in which students photographed their own campus and shared their perspectives in writing and interviews. Survey results show increases in knowledge, behaviors, and positive assessments of the educational context. Interestingly, affective dispositions toward the environment did not change over the study period, and were comparable to those of students in a nearby non-green school. Review of student photography offers an additional and unique window on the student experience, uncovering aspects of the school environment that emerge as important for youth. Viewed together, the results reveal the importance of the built environment – alongside school policies, operations, and cultural practices – as a catalyst for the adoption of environmentally friendly practices. This project additionally offers insights on the connections between the aesthetic experiences of youth and environmental behavior change, which is here framed as an important facet of human adaptation to ongoing environmental change.

REFERENCES
Using Cross-Disciplinary Research to Design Holistically: The Application of a Preliminary Framework of Holistic Wellness Design in a Pediatric Oncology Facility

Heather Dodd, Florida State University

As the number of cancer cases continues to increase in the United States, the design of supportive medical environments has continued to gain attention. (American Cancer Society, 2012; Center for Health Design, 2013). This trend may be a result of the belief that the built environment of medical facilities has the potential to positively impact patient healing through psychosocial methods (McCullough, 2010; Ulrich, 1984). Yet, there are certain user populations, such as pediatric oncology patients, whose critical dependence on medical care and adult caregivers may lead to difficulties in obtaining information through direct research (Borgers et al., 2000). Therefore, hospitals that serve this population may not be adequately designed to fully encompass the entire range of psychosocial needs, and may benefit from design solutions derived from alternate methods of research. This presentation will discuss results from a recent research study that examined the preliminary applicability of an original checklist-style instrument in ten spaces within a local children’s hospital. This instrument, referred to as the Holistic Design Criteria, was created by combining cross-disciplinary research from three areas—healthcare, childcare and oncology—in order to determine built environment characteristics which may support the psychosocial needs of child cancer patients more fully. The criteria was applied through the observation and individual comparison of ten spaces, and preliminarily tested through related interview questions with four nursing staff members. Among the study’s emerging points was the discovery that the researched facility appeared to attend more fully (although not entirely) to the physical category of holistic wellness, and less fully to the psychological, social and spiritual. One contributor to this concluded imbalance may be the site’s location and orientation. Surrounding buildings and paved landscaping may lead to the inaccessibility of nature for child cancer patients and, therefore, decreased opportunities for psychological and spiritual wellness attributed to nature. Further, interviewed nursing staff members expressed appreciation for the Holistic Design Criteria and its goals of improving the well-being of child cancer patients. Their shared insight supported conclusions derived from the observation phase, and allowed the researcher to fulfill more specific needs not revealed through preliminary research, such as the inclusion of a rooftop garden view into the fourth floor hallway. This design proposal, as well as those for the other nine spaces, will also be shared in this conference presentation, offering attendees a full-circle view of the project, from conceived methodology to research and dispersion through design. It is the goal of this conference presentation to share information learned through this preliminary study with conference attendees and to aid the researcher in preparing for subsequent studies that seek to improve and confirm the Holistic Design Criteria’s applicability and validity. The criteria may find its greatest significance in its broad ideas, as its derivation from cross-disciplinary research may lend insights into holistically-focused design solutions for other compromised populations.

REFERENCES
## Holistic Design Criteria

<table>
<thead>
<tr>
<th>Inpatient Room</th>
<th>Status</th>
<th>Physical</th>
<th>Psychological</th>
<th>Status</th>
<th>Spiritual</th>
<th>Status</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable artificial light levels; don’t cause strain</td>
<td>Accessible to chapel</td>
<td>“dining” table on casters for games, meals, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Light reflectance is bearable</td>
<td>Access to meditation room</td>
<td>Place(s) for artistic expression</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hand sanitation dispensers</td>
<td>Visually interesting lighting</td>
<td>Spiritual Art</td>
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<tr>
<td>Temperature is comfortable</td>
<td>Patient/family control of lighting</td>
<td>Ability for ambient music</td>
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<td></td>
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<tr>
<td>Wide door at bathrooms</td>
<td>Access to iPad or other form of positive distraction</td>
<td>Sky view (skylights, clerestory windows)</td>
<td></td>
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<td></td>
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<tr>
<td>Visible handwash sinks</td>
<td>Designated storage spaces</td>
<td>Bedside table with drawer for materials (bible, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Light switch reachable from inpatient bed</td>
<td>Designated areas for family and staff</td>
<td>Electronic communication w/spiritual staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handrails</td>
<td>Window view(s)</td>
<td>Uplighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flooring choice</td>
<td>Photographs of Nature</td>
<td>Side seating by window</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operable windows</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potted plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical access to healing garden</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
An Assessment Comparing Introduction to Design Fundamentals and Digital Design Software in Interior Design Education

Eric Dolph, Buffalo State College

This study investigates the quantity of contact hours that students of first-professional-degree accredited interior design programs receive between their introduction to foundational design concepts and the explicit introduction of digital design software instruction. For the purposes of this study, ‘digital design software’ includes instruction in Computer Aided Architectural Design (CAAD), Building Information Modeling (BIM), or a combination of both CAAD and BIM. Interior design programs routinely present students with design problems that require a continuous and cyclical process of problem identification, ideation, and documentation. Historically, this process occurred in an entirely analog fashion whereby students develop a specific set of ideation and documentation skills. These skills mature with continued practice to become powerful tools for communication of complex spatial design ideas. Recently, however, as digital design software tools have been increasingly integrated to the academic studio, the ways in which students approach the process of exploring design solutions have changed to accommodate the new tools. Empirical research indicates that although digital design software has traditionally been viewed as a drafting tool and a means of capturing data, students learning such software in the context of a design curriculum have incorporated the software into the “conceptual cycle sequences and consequences” of the design of their work (Salman, Laing & Conniff, 2008). The processes of ideation in an analog context versus a digital context have similarities and differences, both in character and outcomes. Accredited programs in interior design have developed a variety of strategies to incorporate digital design software tools into the design process. These strategic variances include differences in which semester of study digital design software is first introduced to students, the amount of time students are encouraged to explore and assimilate foundational design concepts prior to introduction of digital design software, and ways in which analog iteration strategies are integrated during instruction of digital design software. To date, limited research evidence exists that investigates whether there is a correlation between the amount of time students have to assimilate the foundational principles of design and the students’ introduction to digital design software tools. As a first phase of this larger investigation, this data collection study examines the curriculum matrices of interior design programs accredited by the Council for Interior Design Accreditation (CIDA) and compares the first formal introduction of students to the foundational principles of design with the subsequent semester in which they are introduced to digital design software tools. The literature and data gathered for this study will be used to inform future investigations analyzing more qualitative questions, namely how accredited interior design programs value analog versus digital skills and whether integration and balance of analog and digital skills is desirable in the academic studio environment.

REFERENCES


Amy Crumpton, A., Lynsdey Lamas Miller, A., & Allied, I. Dynamic design or stifled students? building information modeling as a tool in the interior design curriculum.


Interior Design Internships: The Role of Professional Mentoring in the New Economy

Kenan Fishburne, Florida State University

Interior Design Internships: The Role of Professional Mentoring in the New Economy Background: Increasing pressure is being felt by publicly funded academic institutions to become accountable for student placement, particularly in professional degree programs such as interior design (Roher and Cotterell, 2012). This has resulted in increased emphasis on experiential learning, particularly in the form of internship programs. While the need for these experiences is clear, the economic downturn which began in 2008 adversely affected interior design professionals, leading to a decrease in the number of professional mentors available to students (U.S. Bureau of Labor Statistics, 2012). If the interior design profession is to remain strong, these mentoring experiences must be supported. This study explored the current views of internship providers via a literature review of best practices and a national survey that gathered information on their experiences, preferences, and motivations. Methodology: To better understand the attitudes of internship providers regarding academic internships, a survey was conducted during the fall of 2013 and completed by 116 ASID and IIDA members. The survey was divided into three sections with the first focusing on demographics and professional experience of providers, the second on status of current internship offerings, and the third on provider perception of student interns and internship curriculum, including open ended responses on changes they would suggest. Findings: Key findings revealed some interesting provider perceptions concerning best practices for interior design programs to consider as they seek to retain/expand internship locations. Demographic questions revealed most responders had fewer than six years of practice and were not NCIDQ qualified. When asked about trends in providing internships, 54% indicated they were offering internships at the same rate as in the past, 23% indicated they had reduced their internships, and 23% indicated they were no longer offering them. Open-ended responses to this question revealed lack of work or downsizing as the primary reasons. Regarding the motivation for offering internships, open-ended responses revealed two very different dominant responses. The predominant answer was to help strengthen the profession by providing internships to young designers entering the profession. The other responses indicated that interns were expected to provide value to their firm. Respondents also indicated internship preparation should involve more preparation in “soft” skills like dress, time management and phone skills. Asked if they desired recognition for their service, they indicated a thank you letter would be sufficient. Conclusion: There is much discussion of what students expect from internship but little from the provider’s point of view (Nussbaumer, 2011). Pressure on academic institutions will require review of internship programs that includes strategies for retaining providers who play the defining role in a student’s ability to successfully enter the profession. It is imperative that academic institutions understand the issues that will continue to affect internship programs, so that in addition to the goal of providing excellent opportunities for students, they can retain the professional mentors for the next generation of designers. Ideally, results shared here can be used by universities to strengthen their own internship programs.

REFERENCES


What Studio Practices do Students Believe Influences Their Design Development Process?

Jessica Goldsmith, Radford University

The foundation of the interior design education is the design studio. In studio classes, interior design students practice developing solutions to design problems as well as expressing those solutions through architectural drawings, such as floor plans, sections, and perspectives (Poldma 2009). This study was conducted in a capstone senior studio class at a CIDA accredited public university in the southeast. The studio class met three times a week for three hours each session throughout the spring semester for a total of 108 contact hours throughout the study, plus additional time for site visits. During this twelve-week studio project, students’ designed interior rehabilitations for two historic Frank Lloyd Wright buildings on the Florida Southern College campus. Their assignment was to convert these two campus buildings into a conference center with adjacent hotel. Before beginning their design work, and throughout the early design phases, students completed several activities developed by their instructors to educate, inform and ultimately influence their design process and outcomes. For the first five weeks, students learned about the site, conducted research activities and developed a concept presentation. After presenting their concept development boards to design faculty and members of the Florida Southern College community, students completed an original survey instrument asking about their design decision influences. Results are shared in Table 1 in the Appendix. Instrument questions were open-ended, allowing students to describe their concept development activities in their own words and then rank these activities in order of perceived influence on their design decision-making process. At the mid-point in the design process, students found their site visit and tour to be the most influential activity, followed by their morphological building analysis. Only a few believed their research, a mixed individual and class effort, was highly influential. After completing and presenting their designs, students filled out new original instruments asking what pre-design phase activities most influenced their designs and design process. The first instrument asked students to score eight pre-design activities; the course instructor supplied the list and results are shown in Table 2 of the Appendix. Now, students found the process of developing a design concept and studying Frank Lloyd Wright’s work the most influential activities. Table 3 lists how many students discussed the significance of each activity in a series of open-ended questions about their design experience. Once again, studying the previous designer’s work was highly influential for students; something they had not realized at the concept development stage. These findings are significant for design educators. First, they demonstrate that students do rely on and use their pre-design phase studio activities to inform design decisions. Those activities should be developed carefully and evaluated for success. Secondly, what activities students’ find helpful changes throughout the design process- prepared educators can plan activities for different design phases and prompt students about when to reconsider their previous research. Findings also suggest the need for further study why didn’t students find some activities helpful and how can activities be further developed to support student learning and successful design outcomes?

REFERENCES
APPENDIX

Table 1. Pre-design activities that students found most helpful while developing their concept boards.

This data came from students’ completed Reflections on Your Pre-design Concept Survey, which was completed shortly after students submitted a set of three concept boards and before they began design work.

<table>
<thead>
<tr>
<th>Students’ views: Pre-design activities that most influenced concept</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site visit and tour</td>
<td>58 percent n=14</td>
</tr>
<tr>
<td>Morphological analysis</td>
<td>38 percent n=9</td>
</tr>
<tr>
<td>Own research (examples given: reading about Frank Lloyd Wright, looking at images online)</td>
<td>29 percent n=7</td>
</tr>
<tr>
<td>Benchmark research</td>
<td>20 percent n=5</td>
</tr>
</tbody>
</table>
Table 2. Rankings the eight pre-design phase studio activities by students’ mean score of degree of design decision influence.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Pre-design activity</th>
<th>Participants’ Mean Scale 1-9 (least to most influential)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concept and branding development</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Analysis of Frank Lloyd Wright’s original design concepts</td>
<td>7.98</td>
</tr>
<tr>
<td>3</td>
<td>Code compliance and ADA research</td>
<td>7.18</td>
</tr>
<tr>
<td>4</td>
<td>Morphological analysis</td>
<td>7.09</td>
</tr>
<tr>
<td>5</td>
<td>Character defining features research</td>
<td>6.91</td>
</tr>
<tr>
<td>6</td>
<td>Building user perceptions and behavior research</td>
<td>6.68</td>
</tr>
<tr>
<td>7</td>
<td>LEED research</td>
<td>6.5</td>
</tr>
<tr>
<td>8</td>
<td>Midpoint presentation</td>
<td>4.05</td>
</tr>
</tbody>
</table>
Table 3. Pre-design activities that students found most influential on their final design solutions.

This data came from students’ completed Essays, Post-tests of Student Interest, and Student Opinion of Design Decision Influences Surveys. These three instruments were completed after students finished developing their interior design solutions and had open-ended answers, students were not prompted with lists of specific activities.

<table>
<thead>
<tr>
<th>Students’ views: Pre-design activities that most influenced design solution</th>
<th>24 possible students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank Lloyd Wright design concept analysis</td>
<td>16</td>
</tr>
<tr>
<td>Morphological analysis</td>
<td>14</td>
</tr>
<tr>
<td>Character defining features analysis</td>
<td>9</td>
</tr>
<tr>
<td>Own design concept</td>
<td>8</td>
</tr>
<tr>
<td>ADA and other code requirements</td>
<td>6</td>
</tr>
<tr>
<td>Building program and new function</td>
<td>5</td>
</tr>
<tr>
<td>Perception of users’ needs</td>
<td>4</td>
</tr>
<tr>
<td>LEED criteria</td>
<td>4</td>
</tr>
<tr>
<td>Site visits</td>
<td>4</td>
</tr>
</tbody>
</table>
Sustainable Preservation: Exploring LEED for Neighborhood Development in a Historic Neighborhood

Travis Lee Hicks, University of North Carolina Greensboro
Catherine French, University of North Carolina Greensboro
Joylyn Troyer, University of North Carolina Greensboro

INTRODUCTION: A community-based research team consisted of a faculty mentor, two students, and a community partner, the director of a local historic preservation non-profit. The team focused their time and energy on the connections and overlaps between historic preservation and sustainability, using the site of a nearby neighborhood, ultimately focusing on that portion of the neighborhood belonging to the university, due to campus expansion, and the non-profit community partner. SIGNIFICANCE This particular study is significant within the disciplines of preservation and sustainability, in that it considers a potentially new toolkit for the design disciplines to analyze and evaluate existing marginalized neighborhoods that don't quite fit into the existing vocabularies or sets of tools for preservation or sustainable design. In the local context, this study is significant in its potential to change the conversation around the university's expansion into this neighborhood. The research team examined these properties against guidelines established by the USGBC for LEED-ND. LEED for New Buildings has become a standard for new buildings on the university campus; however, there is currently no demand for LEED-ND. The USGBC released the LEED® standards for Neighborhood Development and Historic Preservation (LEED-ND®) for the very first time in March of 2013. This research study is one of the first faculty/student initiatives to apply these standards to an existing neighborhood. The project introduced state-of-the-art sustainable design concepts to a historically significant neighborhood, revolutionizing how existing buildings and sites are assessed, rehabilitated, and preserved in this community. The research team began this study with the following research questions: 1. How does one best maintain the integrity and authenticity of the historical built environment of a neighborhood with a strong, evolving community vision like this one? 2. What are the best methods for applying Leadership in Energy and Environmental Design in Neighborhood Development standards (LEED-ND®) to historic structures in an existing neighborhood? 3. What are the limitations of preservation strategies in a non-contributing historic community? 4. How does one integrate cutting-edge sustainable design concepts into historic structures that, using preservation strategies, resist cutting-edge technologies? The team concluded that the current design does not meet LEED-ND guidelines. Acknowledging that LEED-ND was not a goal of the university, the research team concludes that with a few strategic design interventions, such as bus shelters, bike racks, a community garden with composting, and a supermarket, the university and community could establish a mutually-beneficial, sustainable design for the community that could meet LEED-ND guidelines. In addition, interior renovations to existing historic structures could provide ample points to make LEED-ND certification more viable. IMPLICATIONS The implications of this project are significant in the disciplines of historic preservation and sustainable design. The research team found a void in the scholarship and in the national guidelines where these two disciplines overlap. There are opportunities for scholarship in this space of overlap, and there are opportunities for the US Green Building Council and for the National Trust for Historic Preservation to collaborate in promoting sustainable preservation in neighborhoods not registered as historic districts.

REFERENCES
# LEED 2009 for Neighborhood Development Project Scorecard:

## Neighborhood

### Smart Location and Linkage

<table>
<thead>
<tr>
<th>Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Smart Location</td>
</tr>
<tr>
<td>2</td>
<td>Imperiled Species and Ecological Communities</td>
</tr>
<tr>
<td>3</td>
<td>Wetland and Water Body Conservation</td>
</tr>
<tr>
<td>4</td>
<td>Agricultural Land Conservation</td>
</tr>
<tr>
<td>5</td>
<td>Floodplain Avoidance</td>
</tr>
<tr>
<td>6</td>
<td>Preferred Locations</td>
</tr>
<tr>
<td>7</td>
<td>Brownfield Redevelopment</td>
</tr>
<tr>
<td>8</td>
<td>Locations with Reduced Automobile Dependence</td>
</tr>
<tr>
<td>9</td>
<td>Bicycle Network and Storage</td>
</tr>
<tr>
<td>10</td>
<td>Housing and Jobs Proximity</td>
</tr>
<tr>
<td>11</td>
<td>Deep Slope Protection</td>
</tr>
<tr>
<td>12</td>
<td>Site Design for Habitat or Wetland and Water Body Conservation</td>
</tr>
<tr>
<td>13</td>
<td>Restoration of Habitat or Wetlands and Water Bodies</td>
</tr>
<tr>
<td>14</td>
<td>Long-Term Conservation Management of Habitat or Wetlands and Water Bodies</td>
</tr>
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</table>

### Neighborhood Pattern and Design

<table>
<thead>
<tr>
<th>Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Walkable Streets</td>
</tr>
<tr>
<td>2</td>
<td>Compact Development</td>
</tr>
<tr>
<td>3</td>
<td>Connected and Open Community</td>
</tr>
<tr>
<td>4</td>
<td>Mixed-Use Neighborhood Centers</td>
</tr>
<tr>
<td>5</td>
<td>Affordable Housing - Non Spartan Village</td>
</tr>
<tr>
<td>6</td>
<td>Reduced Parking Footprint</td>
</tr>
<tr>
<td>7</td>
<td>Bike Parking and Storage, Car Share/Carpool Parking</td>
</tr>
<tr>
<td>8</td>
<td>Street Network</td>
</tr>
<tr>
<td>9</td>
<td>Transit Facilities</td>
</tr>
<tr>
<td>10</td>
<td>Transportation Demand Management</td>
</tr>
<tr>
<td>11</td>
<td>Access to Civic and Public Spaces</td>
</tr>
<tr>
<td>12</td>
<td>Access to Recreation Facilities</td>
</tr>
<tr>
<td>13</td>
<td>Visibility and Universal Design</td>
</tr>
<tr>
<td>14</td>
<td>Community Outreach and Involvement</td>
</tr>
<tr>
<td>15</td>
<td>Local Food Production</td>
</tr>
<tr>
<td>16</td>
<td>On-Site Garden Proposal</td>
</tr>
<tr>
<td>17</td>
<td>Tree-Lined and Shaded Streets</td>
</tr>
<tr>
<td>18</td>
<td>Neighborhood Schools</td>
</tr>
</tbody>
</table>

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Sustainable Preservation: Exploring LEED for Neighborhood Development in a Historic Neighborhood

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### Green Infrastructure and Buildings

<table>
<thead>
<tr>
<th>Credit</th>
<th>Description</th>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Certified Green Building</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Minimum Building Energy Efficiency</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Minimum Building Water Efficiency</td>
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</tr>
<tr>
<td>4</td>
<td>Construction Activity Pollution Prevention</td>
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</tr>
<tr>
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<td>Certified Green Buildings</td>
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</tr>
<tr>
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</tr>
<tr>
<td>7</td>
<td>Building Water Efficiency</td>
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</tr>
<tr>
<td>8</td>
<td>Water-Efficient Landscaping</td>
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</tr>
<tr>
<td>9</td>
<td>Existing Building Use</td>
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</tr>
<tr>
<td>10</td>
<td>Historic Resource Preservation and Adaptive Reuse</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Minimized Site Disturbance in Design and Construction</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Stormwater Management</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>Heat Island Reduction</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Solar Orientation</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>On-Site Renewable Energy Sources</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>District Heating and Cooling</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>Infrastructure Energy Efficiency</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Wastewater Management</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Recycled Content in Infrastructure</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Solid Waste Management</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Light Pollution Reduction</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>GARDEN, COMPOSTING, ENCLOSED BIKE SHELTER</td>
<td>1</td>
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</table>

 SUSTAINABLE PRESERVATION: EXPLORING LEED FOR NEIGHBORHOOD DEVELOPMENT IN A HISTORIC NEIGHBORHOOD: 22 32 39 PROJECT TOTALS

Certified: 40-49 points
Design Recommendations

- PGI House Rehabilitation Proposal - points possible +22
- Bike Shelter/Storage - points possible +3
- Covered Bus Shelter - points possible +1
- Garden and Composting - points possible +2
- Supermarket and Diverse Employment - points possible +7
- Historic District on the National Register - points possible +1
- Heat Island Reduction - points possible +1
- Recreation Center with Public Access - points possible +1
- Street Calming Measures for access route to school - points possible +1
Lost in Translation: Exploring How Designers Process Research Findings

Amy Huber, Florida State University

Today, the value of research in the design process is increasingly apparent. Strategic processes of Design Thinking (Lockwood, 2009) and Evidence-based Design (EBD) have increased the demand for usable empirical evidence as an antecedent to design decision making. Moreover, large design firms and furniture manufacturers are engaging internal scholars to generate proprietary research. Meanwhile, technological advances have afforded new and interesting approaches for disseminating findings. Yet, research being conducted by academics is largely being disseminated in much the same manner as it has been for decades (e.g. conference proceedings and written journal articles). Designers who are pressed for time may seek sources of information affording quick, satisficing answers to their questions. Researchers have yet to understand how designers internalize research findings and apply those findings in project problem solving. This study sought how designers’ process new information and their ideas for disseminating research findings. With this understanding, researchers may communicate findings in a manner which may ultimately allow more designers to use empirical findings when making design decisions. Literature Cognitive science has helped clarify information processing preferences. Empirically-based models assume that individuals want to form accurate paradigms, but may use one of two processing systems to form those paradigms. Multiple interrelated models, commonly classified as Dual Process Theories (Chaiken & Trope, 1999; Evans et al., 2003) suggest individuals use two forms of processing information; Systems 1 and 2. System 1 is gut-level processing which relies on intuitive associations requiring little mental effort (e.g. heuristics); while, System 2 is cognitive level processing which is deliberate, systematic, and requires the use of central working memory (Evans et al., 2003). Designers who are often pressed for time and may utilize System 1 heuristics (see Table 1 for classification and examples); however, academic findings are characteristically communicated in System 2 biased methods. This disconnect may explain Dickson and White’s (1993) findings that designers overwhelmingly used “soft sources” (e.g. trade periodicals and product literature) for information. This research seeks to document how designers ascertain meaning from information sources and their ideas for disseminating research findings. Findings The presentation summarizes findings following a spring 2014 exploratory survey distributed nationally to Professional, Associate, and Allied members of American Society of Interior Designers (ASID). N=366 responses were ascertained; of those (n=315) indicated they conducted project-related research. Open-ended responses regarding personal preferences for processing information (n=180) and ideas for communicating academic research (n=71) were inductively coded and quantified (see Table 2). Several key themes emerged from the data illustrating System 1 & 2 processing preferences, and heuristic classifications. While processing information, the sample indicated they were most likely to use: written analysis (e.g. outlines or note taking), utilize existing visuals or create new ones, assimilate knowledge to existing, or discuss content with others to determine meaning. Designers expanded on ideas for communicating research in terms of: topic selection, dissemination methods, presentation style, and written language. Implications from this survey suggest that designers’ do value research; yet, are often stymied by traditional dissemination methods utilized by academic researchers.

REFERENCES


### Table 1. Four Key classifications of problem solving heuristics and associated examples

<table>
<thead>
<tr>
<th>1: Recognition Based Heuristics</th>
<th>Judging options based on memory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples:</strong></td>
<td></td>
</tr>
<tr>
<td>Recognition Heuristic: an individual makes inferences about a criterion, based on recognition (i.e. trusting the remembered solution)</td>
<td></td>
</tr>
<tr>
<td>Fluency Heuristic: optional solutions to solve a problem are equally recognizable, but one is recognized faster; thus, the individual determines that option to have more value (i.e. taking the first idea that comes to mind)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2: One-Reason Decision Making</th>
<th>Determining one source of information as correct when judging options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example:</strong></td>
<td></td>
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<tr>
<td>One-clever-cue Heuristic: an individual relies on a single “clever” cue to solve a problem</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3: Trade-Off Heuristics</th>
<th>Weights options equally and makes compensations accordingly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples:</strong></td>
<td></td>
</tr>
<tr>
<td>Tallying Heuristic: an individual counts the number of cues favoring one option over another</td>
<td></td>
</tr>
<tr>
<td>Satisficing Heuristic: an individual searches for solutions in any order, and stops as soon as an acceptable solution is determined (i.e. trust the option that will quickly suffice)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>4: Social Information Heuristics</th>
<th>Judging options based on group loyalty, accountability, or societal norms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td>Imitation Heuristic: an individual judges options according to how others have previously judged the options</td>
<td></td>
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</table>

Adapted from Gigerenzer & Gaissmaier, 2011.

### Table 2. Inductive coding of open-ended responses

<table>
<thead>
<tr>
<th>Themes from: Preferences for Processing Information (n=180)</th>
<th>Ideas for Communicating Research (n=71)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme 1-Written Methods (n=107)</strong></td>
<td><strong>Theme 1-Topic selection &amp; use of research (n=26)</strong></td>
</tr>
<tr>
<td>Deductive notes or highlighting (19)</td>
<td>Resolve issues with usability of research (14)</td>
</tr>
<tr>
<td>Inductive organizational strategies (e.g. Outlines) (15)</td>
<td>Resolve issues with purpose of research (7)</td>
</tr>
<tr>
<td>Rereading and/or reflection (15)</td>
<td>Seek Interdisciplinary scope</td>
</tr>
<tr>
<td>Skimming headings &amp; captions (21)</td>
<td>Designers may use of research to:</td>
</tr>
<tr>
<td><strong>Theme 2-Use Existing Visuals or Creating New (n=22)</strong></td>
<td>Improve client relations (6)</td>
</tr>
<tr>
<td>Create sketches or diagrams (17)</td>
<td>Gain Ideas</td>
</tr>
<tr>
<td>Utilize existing diagrams (3)</td>
<td>Enhance projects</td>
</tr>
<tr>
<td>Mental imagery</td>
<td>Confirm prior ideas</td>
</tr>
<tr>
<td><strong>Theme 3-Transfer of Knowledge (n=28)</strong></td>
<td><strong>Theme 2-Dissemination Methods (n=24)</strong></td>
</tr>
<tr>
<td>Analogize to existing knowledge (19)</td>
<td>Remove barriers to research</td>
</tr>
<tr>
<td>Seek more sources to triangulate information (9)</td>
<td>&amp; more availability of sources (7)</td>
</tr>
<tr>
<td><strong>Theme 4-Discuss Content with Others (n=13)</strong></td>
<td>Interactive Options (5)</td>
</tr>
<tr>
<td>Peer-to-peer or peer-to-peer discussions (10)</td>
<td>Utilize professional organizations (2)</td>
</tr>
<tr>
<td>Client discussions (11)</td>
<td>Utilize trade journals (2)</td>
</tr>
<tr>
<td>Didactic methods (e.g. teaching to others) (2)</td>
<td>Create CEU classes (2)</td>
</tr>
<tr>
<td><strong>Uncategorized (n=10)</strong></td>
<td>Utilize Video (2)</td>
</tr>
<tr>
<td></td>
<td>Create Discussion Groups/Networks (3)</td>
</tr>
<tr>
<td></td>
<td>Create a physical design library</td>
</tr>
<tr>
<td></td>
<td><strong>Theme 3-Presentation Style (n=9)</strong></td>
</tr>
<tr>
<td></td>
<td>Increase visual components (7)</td>
</tr>
<tr>
<td></td>
<td>Use of Keywords</td>
</tr>
<tr>
<td></td>
<td>Presentability</td>
</tr>
<tr>
<td></td>
<td><strong>Theme 4-Written Language (n=9)</strong></td>
</tr>
<tr>
<td></td>
<td>Use concise writing (4)</td>
</tr>
<tr>
<td></td>
<td>Quality perceptions (4)</td>
</tr>
<tr>
<td></td>
<td>Elucidate key results &amp; outcomes (1)</td>
</tr>
<tr>
<td></td>
<td>Use of Bullet Points</td>
</tr>
<tr>
<td></td>
<td><strong>Uncategorized (n=3)</strong></td>
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Wayfinding Preferences in the Built Environment: Age, Gender, and Culture Related Differences

Kristi Julian, East Tennessee State University
Jessica Abdelnour, East Tennessee State University

WAYFINDING PREFERENCES IN THE BUILT ENVIRONMENT: AGE, GENDER AND CULTURE RELATED DIFFERENCES Wayfinding is a spatial behavior that requires the ability to move between locations while maintaining orientation in and around objects, people, and spaces. Wayfinding may be thought of as “finding one’s way” in an environment. The negative effects of getting lost have physical, emotional, and practical dimensions. Negative physical effects may include eye blinks, rapid pulse rate, and elevated blood pressure (Yaezawa, Yoshida, & Zimring, 1981). Emotional effects may include anxiety, stress, and feelings of helplessness, often leading to frustration and hostility (Malkin, 1991). The practical aspects of getting lost include missing an appointment, having to reschedule, and taking time off from work, in addition to a considerable amount of staff time required to direct or lead people to their destinations (Malkin, 1991). Inadequate wayfinding strategies may cost society time and money. Disorientation and stress are linked. Being spatially oriented is so important to many people that when they are lost they become anxious and panicky (Zimring, 1981). Stress is caused when one loses control of a situation because the environment presents more demands than one can meet at the moment (Pollet & Haskell, 1979). Lawton and Kallai (2002) reviewed gender differences in wayfinding strategies in America and Hungary. Their findings suggest that regardless of ethnicity, women in both countries exhibit higher wayfinding anxiety than men. Women preferred route wayfinding strategies while men preferred orientation wayfinding strategies. Findings indicate “Heightened concern about wayfinding, which in turn may affect women’s sense of efficacy in the physical environment” (Lawton & Kallai, 2002, 399). In emergency and non-emergency situations, wayfinding systems need to be clear, well-defined, and comprehensible. Statement of the Problem The body of existing research pertaining to wayfinding preferences in age, gender and culture is inconclusive, and the types and quantity of visual cues needed for safe navigation may vary for each of these categories. Due to this lack of existing research, interior environments may have inadequate wayfinding systems that are based on difficult-to-remember visual and spatial landmarks that do not cater to one or more of these parameters. Purpose and Objectives The purpose of this study was to identify and analyze wayfinding features in a healthcare setting that may be related to gender, age and culture. This research was planned to achieve three objectives: 1. To study the influence of age on wayfinding preferences, 2. To study the influence of gender on wayfinding preferences, and 3. To study the influence of culture on wayfinding preferences. Conclusions To the extent that the data collected for this study were valid and reliable and the assumptions of the study were appropriate and correct, the following conclusions may be made. Results from the two-way analysis of variance statistical analysis revealed statistically significant differences for culture and wayfinding preferences in the built environment and a significant interaction effect for gender and culture and wayfinding preferences. Findings from this research may help design practitioners make more informed decisions for planning visual landmarks as wayfinding aids. The presentation portrays and expounds these preferences within the landmarks or prominent points of reference that assist navigation.

REFERENCES
Fitting In: The Growing Ergonomic Impact of Changing Population Size on Planning and Specification for Interior Environments

Kristi Julian, East Tennessee State University  
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Bernie Lynch, ErgoGenesis Workplace Solutions  
Taneshia West Albert, ARCH Framing and Design  
Mike Bartholomew, ErgoGenesis BodyBilt Seating & Workplace Solutions

FITTING IN: THE GROWING ERGONOMIC IMPACT OF CHANGING POPULATION SIZE ON PLANNING & SPECIFICATION FOR INTERIOR ENVIRONMENTS According to the CDC, approximately one-third of Americans are categorized as obese, with obesity currently listed behind cigarette smoking as the second leading cause of preventable death in the United States. The World Health Organization estimates that there were approximately 400 million obese adults in 2008, and project 700 million adults will be obese by 2015 (Rowan, Hunt, & Johnson, 2012). This population routinely faces challenges ranging from having safe supportive seating to accessing facilities and medical treatment. Designing or up-fitting buildings and contents to successfully meet needs and guarantee safe conduct is a growing reality for architects, interior and product designers, and industry and healthcare facility engineers and management. Industry and healthcare are increasingly turning to design professionals for viable coping strategies and future planning. As visionaries legally responsible for the health, welfare, and safety needs of this growing population, designers must understand how codes and clearances, space planning, and furniture specification are affected, to best prepare our students for successful practice. This panel will discuss how individuals outside of “average” body size range provide special challenges to designing and specifying commercial spaces, and how they increasingly impact student education and design practice. Co-moderators with experience in designing contract spaces for special ergonomic populations will lead the discussion, providing a brief overview of research and practice methodologies that have historically informed design education for typical sized and bariatric clients. A leading ergonomic design professional will discuss ergonomics and how the population informs furniture design and industry codes and standards, providing cutting edge insight into future design trends for this growing industry segment. Examples of customized seating products will be demonstrated, and instruction in specification and proper ergonomic “fitting” will be provided. Experiences and observations by panel members will identify common realities and challenges, while analyzing current teaching strategies, student awareness and understanding of bariatric expectations, compliance with Occupational Safety & Health Administration (OSHA) regulations, and ideate projected skill set needs and required compliance actions to best affect design curriculum changes and student outcome summaries.

Possible Questions:  
• What are the current definitions of “average size” and “obese”, and what industry and governmental codes and standards regulate this special population?  
• How does this demographic affect facility, engineering and design requirements for work and life support?  
• How is this population affecting building codes and clearances? What changes have been made or are being proposed to IBD, OSHA, Egress, Fire, and other codes?  
• How do special requirements affect cost? What is the average expected “up-charge” for supporting outlying individuals as compared to “typical” design solutions? (Include insurance, litigation, and FF&E requirements)  
• How do you specify for this population? What do students need to know?  
• What are the best strategies for teaching students to understand and provide for this population?  
• What are currently available resources for research, teaching, and informing practice?

REFERENCES  
Disarming the Bomb of Millennial Stress in the Interior Design Curriculum: A Discussion on Effective Strategies

Catherine Kendall, University of Tennessee at Chattanooga
Jessica Etheredge, University of Tennessee at Chattanooga
Dana Moody, University of Tennessee at Chattanooga

Panelist: Ruth Beals, Converse College
Jill Pable, Florida State University
Stephanie Sickler, University of Alabama
Lauren Trujillo, Sanford Brown College/Art Institute
Roberto Ventura, Virginia Commonwealth University

Introduction: According to a recently released study, millennial generation students have higher stress levels than the national average and feel constant pressure (American Psychological Association, 2013). In fact, the number of students now entering college with psychological issues such as depression, anxiety disorders, social problems and self-esteem has increased significantly (Hernandez, 2006). The purpose of this presentation is to explore effective strategies that minimize Millennial stress within the interior design curriculum. Significance and Relevance: According to Howe and Strauss (2000), in Millennials Rising: The Next Generation, one of the seven distinguishing traits that define Millennials is Pressured. Millennial’s three biggest concerns are grades, resumes, and the economy (Jayson, 2013), and control of time is cited as a major stressor (Ryder, 2010). These concerns tie into another trait Perfectionism (Brustein, 2013). This means that many college students have excessive and rigid goals regarding their accomplishments and expectations. Within interior design programs, the high degree of program rigor is increasing the stress of many Millennials and, in turn, is affecting the recruitment and retention rates of quality students. Limited research exists to guide educators with how to deal with these high stress students. Looking at strategies such as project structure, measures, engagement, leadership, and guidance provides some answers (James, McInnis & Devlin, 2002). Panel: This engaging panel will be comprised of three-five interior design educators of diverse gender, years of experience, classroom format (studio vs. lecture), institutions, and viewpoints. Viewpoints of participating panelists will be explored in innovative ways regarding the following four key issues: • How do we remove stressful focus to always achieve the almighty “A” and create healthy learning environments concentrating more on process? • How do we push students past stressful, time consuming perfectionism to successfully complete design solutions in a timely manner? • How do we stop students from freezing up or breaking down over stress in the classroom? • How to we get student to face their fears of making mistakes and not being perfect, instead of blaming those around them? Case studies, teaching examples, and testimonials will be presented that illustrate the positive and negative ways that interior design educators approach student stress within the classroom. An educator-moderator will encourage and stimulate audience engagement. Outcome and Summary: The college years have been labeled as one of the most stressful periods in a person’s life (Ryder, 2010). Experience in these years, especially in rigorous professional programs such as interior design, can exacerbate stress and distract students and instructors from the creative process. Millennials are unique in their characteristics, including how they handle stress (Howe & Strauss, 2003). Exploring how to get these students beyond just surviving stress, and to a place where they enjoy the academics and flourish in the creative problem solving process required within the field is important to student learning and retention. Seeking pragmatic ways to solve the issue at hand can disarm the bomb of Millennial stress.

REFERENCES


Color Pedagogy in Interior Design: How much do students know about environmental color, and what do they perceive as the value and role of color across market sectors?

Genesis Okken, University of Florida
Margaret Portillo, University of Florida

The purpose of this exploratory study was to evaluate the perceived value and understanding of environmental color within different market sectors among interior design students. This study builds upon Janssen and Mikellides’ (1998) study that sought to uncover what architecture students in Sweden and the UK perceived as the role of color in the built environment, and also sought to evaluate their overall level of color knowledge. In this study, the authors developed a color knowledge measure that was adapted in the present study to the context of interior design. Further, the present study drew on the color planning framework developed for the field of interior design (Portillo & Dohr, 1993; Portillo, 2009). This framework expresses five color functions: composition, communication, preference, response, and pragmatics. These functions correspond well with the multiple purposes cited in the Council for Interior Design Accreditation (CIDA) 2011 standards as “functional, behavioral, aesthetic, perceptual, and/or cultural” in which interior design students need to understand and apply. That is, color can be used as a compositional tool to define form and create emphasis. In turn it can be used to communicate branding and a sense of place— influenced by context and culture. Designers can also utilize color as a tool to satisfy preferences and group trends; to influence behavioral response and visual perception; and pragmatically to help meet budget restraints. Overall color is a multifunctional and complex phenomenon that is important for interior designers to understand. It was predicted that interior design students would value color, but that the influence of color would not be viewed as equally impactful across different market sectors. For this study, market sectors were defined through an analysis of websites for firms listed on the 2012 TOP 100 GIANTS, which uncovered the following ten market sectors: Assisted Living, Aviation/Transit, Corporate, Cultural (ex. museums), Educational, Healthcare, Hospitality, Residential, Retail, and Sports/Recreation. A survey instrument was then developed to measure the perceived value of color across these ten market sectors using 9-point Likert scales and short scenarios. The present study used a random sample of undergraduate students (N=68) from a CIDA accredited program. The participating students completed an IRB-approved survey instrument that evaluated their color education, the application of different color functions in studio work, the perceived value of color in different market sectors, and color knowledge levels. It was predicted that interior design students would report less confidence in their ability to apply different color functions despite valuing environmental color. The results showed that significantly more upper division students recognized the role of color as a tool for composition (p=0.018) and human response (p=0.007) than did the lower division students in the first two years of the program. Interestingly the potential of color across the market sectors also differed by educational level. Namely the more advanced students with more experience working on a variety of studio projects identified color to be more influential in assisted living (p<0.0005), healthcare (p=0.038), and hospitality (p=0.037) contexts than the lower level students. When comparing the results of the present study to those of Janssen and Mikellides’ study, both show that students in architecture and interiors perceive color as playing an important role in the built environment. Yet students in both disciplines somewhat appeared to lack confidence in using color, which may suggest that students would benefit by becoming more aware of the multiple functions of color from the start of their education. These results encourage educators to guide students in expanding their knowledge about this design element and gain the confidence to utilize color purposefully in their design work.

REFERENCES


Oasis in a Food Desert: The New Urban Farm and its Implications for Interior Design

Kelley G. Robinson, Florida State University
Jill Pable, Florida State University

A fundamental need of human culture is to eat, and therefore to have food available to its citizens. Unfortunately, agricultural and distribution practices have reduced many communities to “food deserts” where healthy, fulfilling food is scarce (United States Department of Agriculture, 2014). Present agricultural methods consume copious amounts of fossil fuels from planting to shipping operations, and generate interminable amounts of unhealthy processed foods. Current industrial farming methods have had unintended consequences on public health and substantial negative impacts on the earth’s ecosystems (Despommier, 2010). Many agree that present food distribution channels and farm-to-fork methods require an overhaul in order to preserve limited natural resources for future generations. As food distribution channels and procedures are central to the success of this new idea, the purpose of this study was to explore how the interior built environment could support a new food distribution system in the form of a vertical farm and urban food hub (Figure 1). Such environments may be a new sector of interest and contribution for design practitioners. The study’s research questions sought to determine interior features and space planning that facilitate optimal food distribution from an urban farm’s businessperson’s point of view. The study’s hypothetical project stakeholders were farmers, a restauranteur, farmers’ market managers, grocery store representatives, and community related advocates. Participants were queried through a pre-questionnaire, a design charrette, and a post-questionnaire to determine how the workflow efficiencies of an urban food hub would best suit their needs. The research questions were filtered through the organizational framework of four of Peña and Parshall’s concepts from Problem seeking: An architectural primer, (2001), specifically 1) Priority, 2) Relationships, 3) Communications, and 4) Neighbors. Emergent themes that resulted from the research component of this thesis: • Food brokers are necessary for small farmers and are presently missing from local food distribution channels; • The educational component in teaching both children and adults about healthy food preparation is critical in combating some of the problems associated with food challenges. Spaces in two existing buildings (a hotel and a former appliance store) were hypothetically developed to include a market, a food broker’s office, a seed library, an eatery, a K-12 teaching garden, shared-use and teaching kitchens, an exterior farmers’ market, administrative support spaces, and ten floors of vertical farming apparatuses (Figure 2). Using USDA data and the study’s chosen re-purposed building, the author determined that the study’s vertical farm could potentially produce enough food to fulfill the needs of the low income and low access populations within a .5 mile walking radius. This study found that the success of a new food distribution system is dependent in part on the economically viable physical architecture that supports vendor and consumer needs. Planning spaces for growing and distributing food is a new typology for designers still in the early stages of development around the world. The key may be to solve for necessary food distribution channels that in turn, successfully offer localized solutions to improving health, local economies, and the environment.

REFERENCES

Appendix

![Diagram of Vertical Farm and Urban Food Hub's Floor Levels]

**Figure 1.** Abstract Graphic of the Vertical Farm and Urban Food Hub’s Floor Levels (Image by Author)
Figure 2. Lower Floor Plan of the Urban Food Hub with the Market, Food Broker’s Office, and Seed Library (Image by Author)
Designing for Diversity: Campus Design Preferences of International and Domestic Students

Lauren Trujillo, Sanford Brown College/Art Institute
Lisa Waxman, Florida State University

Designing for Diversity: Campus Design Preferences of International and Domestic Students

Introduction

International students seeking an American university education has grown in recent years, reaching over 800,000 in 2013 (NAFSA, 2014). The design of university campuses may change to support this increasingly diverse student body by improving the quality of their experiences together. This research explored the design preferences of international and domestic students in non-classroom spaces on a university campus to determine how these spaces can be better designed to encourage interaction between diverse groups.

Background

As American universities become increasingly popular for international students, campus resources have been allocated to promote learning and acculturation opportunities for international students, a process often referred to as “university internationalization” (Leask, 2009). Though research on university internationalization and university design is available, it focuses primarily on the development of multicultural curriculum and the design of classroom and lab spaces (Tupper, Carson, Johnson, & Mangat; 2008). Modest research exists on how non-classroom spaces can support the goals of internationalization and intercultural connections among students. Even less research exists on the preferences of the built environment held by the students themselves. Often, pleasant, informal, and voluntary intercultural contact occurs outside of the classroom. Research suggests that there are preferred physical attributes of these spaces which encourage this interaction with fellow students, resulting in the potential for place attachment and stronger social ties (Clements, 2000; Waxman, 2006).

Methodology

The research involved a mixed-method approach utilizing a three-step process. First, a survey of domestic and international students identified the non-classroom spaces on campus they most frequently used and their preferences regarding the physical attributes of these spaces. Next, field research was conducted in the top eight most frequented spaces to better understand how the physical attributes supported the activities of the users. Third, interviews of domestic and international students revealed their perception of how the design of these spaces supported their attachment, sense of community, and cultural interactions. Results

The data revealed a number of design preferences, including those attributes in spaces preferred by both domestic and international students. The key findings revealed that access to technology, pleasant ambient conditions, choice of seating, comfortable furniture, and adequate lighting were strongly preferred by both groups. Preferences also included movable furniture, a variety of open and enclosed spaces, and access to refreshments. Inside these spaces, students were observed studying, socializing, relaxing, and engaging in positive and informal interactions with people from different cultures, often while sharing experiences and goals.

Conclusion

By incorporating the design features that are preferred by both domestic and international students into non-classroom campus spaces, these spaces may become multicultural hubs which attract diverse students and give them a place to interact with their community, develop attachment to their university, socialize, and engage in the personal enrichment and connections so intrinsic to the American university experience. These experiences, when shared among domestic and international students may develop into meaningful and empathetic relationships that carry forward into their post-college life and the globalized workforce beyond.

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An Evaluation of the Cognition of Persons with Dementia after Interaction with Natural Elements

Susan B. Webster, University of North Carolina Greensboro

The need for designers who are aware of the environmental requirements of persons with dementia (PwD) is growing due to the increasing number of persons who have Alzheimer’s disease and other forms of dementia (The Alzheimer’s Association, 2014). Research regarding the built environment and PwD typically explores techniques that allow buildings and furnishings to compensate for declining cognitive abilities of users. This study explores the environment’s potential to stabilize or improve cognitive function through the incorporation of natural elements. Humans’ positive responses to natural elements have been established through extensive research. Faster recovery from surgery, lower blood pressure, and a reduction in pain perception are some of the physiological responses that have been documented (Ulrich et al., 2008), psychological responses include improved mood state and lessened stress reactions (Kaplan & Kaplan, 2011), and enhanced attentional abilities have resulted in better cognitive function (S. Kaplan & Berman, 2010). Studies with PwD show that they, too, are affected positively by natural elements physiologically and psychologically, however systematic studies with PwD using natural elements in the context of the built environment and measures of cognition is deficient. This study investigates the effects of natural elements—operationalized by live plants—on the cognitive and behavioral responses of persons who have moderate to moderately severe dementia. Researchers assess the ability of PwD to perform multiple tests (Time and Change, Trail-making, and a portion of the Montreal Cognitive Assessment) at numerous data points, including prior to the installation of the intervention variable (plants), two days after the installation, and at several data points afterward. This presentation will discuss the results of PwD interacting with natural elements and the potential for the incorporation of natural elements to assist designers and architects when creating environments that function as therapeutic tools.

REFERENCES


ABSTRACTS

SCHOLARSHIP OF TEACHING & LEARNING
Students Define Problems in Real World Programming

Janis Brickey, Middle Tennessee State University

To understand hospitality design, students have to build upon their own experiences while learning to integrate the needs of diverse user groups. Brown (2009) supported the "deep dive" to immerse problem solvers in the experience of the problem. A reciprocal relationship between an interior design program and a state park conference/inn division provided students with real world experience. The state park system benefits from the millennial generation user perspective and the students gain invaluable programming and presentation experience. In late September 2013, a junior level problem-solving lab received a complimentary Friday night lodging including experiences in all available guest room types (Photo 1), conference areas (Photo 2), and a Saturday ranger tour to learn about park history and facilities. Before the trip, the instructor visited the park, met with the manager, and made plans to review the 130-room inn. See Table 1 for Class Events and Outcomes. Preparatory class work included discussions on qualitative research, hospitality design, and the region. In addition, students analyzed survey cards submitted by previous guests (Picture 3). Students were required to use Drop Box to share their notes and photographs. The group scenario reflected the typical state park inn experience. During the 30 hours of their stay, the students were immersed in a different culture 130 miles from campus. On the way to the site, students documented their trip experiences. Using unstructured observations (Nussbaumer, 2009), students recorded their individual observations about their guest experiences. During their stay, students and faculty met after each experience in a small conference room. All students shared impressions, observations, and feelings and group consensus was recorded on a white board (Photo 4). One student observed the mobility challenges for older and wheelchair bound guests. When shared with the manager, he provided a wheelchair to get the students’ perspectives about mobility at the site. Students took turns in the restaurant, guest rooms, and hallways to experience and describe the challenges (Photos 5, 6, 7). Several older guests commented they appreciated watching the students learn about their challenges. Upon departure, smaller groups researched the local community, competition, and historic landmarks. The following week, students toured a local award winning franchise conference center for comparison and recorded impressions about key areas. During the next class, discussions focused initially on the differences between the two environments and moved to idea generation of how design could make a difference. They identified eleven significant critical research topics on current trends (Table 2) and possible solutions to appeal to the millennial generation and thus possibly attract younger park users. In early December, students presented their findings to the state park managers, the state director, and invited officials (Photo 8). The experience will be repeated at another facility in September 2014 approximately 150 miles from campus. Students commented that the experience helped them understand how to consider different users and the limitations of management. They felt the presentation was an excellent experience to present concepts related to research they conducted in the real world.

REFERENCES

Photo 1. Students in 1950s Guest Room

Photo 2. Students at Conference Center
<table>
<thead>
<tr>
<th>Event (In Order of Occurrence)</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site visit by professor early September</td>
<td>Relationship with manager</td>
</tr>
<tr>
<td></td>
<td>Local Perspective</td>
</tr>
<tr>
<td></td>
<td>Project Scope</td>
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<tr>
<td></td>
<td>Access to Guest Surveys</td>
</tr>
<tr>
<td></td>
<td>Trip Familiarity</td>
</tr>
<tr>
<td>Introduction to EBD and qualitative research methods</td>
<td>Learned Process</td>
</tr>
<tr>
<td>Overview of expectations</td>
<td>Site Visit Overview</td>
</tr>
<tr>
<td></td>
<td>Civic Programmer Role</td>
</tr>
<tr>
<td>Overnight stay and on site analysis</td>
<td>Site Observations</td>
</tr>
<tr>
<td></td>
<td>Experiential Learning</td>
</tr>
<tr>
<td>Visit to award winning franchise and tour</td>
<td>Comparative Analysis</td>
</tr>
<tr>
<td></td>
<td>Observations about Order</td>
</tr>
<tr>
<td>Discussion on comparisons</td>
<td>Importance of order in guest expectations</td>
</tr>
<tr>
<td>Identification of Key Topics</td>
<td>Group Emergent Themes</td>
</tr>
<tr>
<td>Research on topics</td>
<td>See Table 2 for list</td>
</tr>
<tr>
<td>Student research presentation on experiences and findings</td>
<td>Professional presentation</td>
</tr>
<tr>
<td></td>
<td>at state capital</td>
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<tr>
<td></td>
<td>New Site Fall 2014</td>
</tr>
</tbody>
</table>

Table 1. Class Events and Outcomes

Photo 3. Analysis of Guest Survey Cards
Photo 6. Entrance to Restaurant

Photo 7. Accessible Bathroom
<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayfinding</td>
<td>8</td>
</tr>
<tr>
<td>Entrance and Approach</td>
<td>6</td>
</tr>
<tr>
<td>Front Desk</td>
<td>4</td>
</tr>
<tr>
<td>Lobby</td>
<td>3</td>
</tr>
<tr>
<td>Retail</td>
<td>4</td>
</tr>
<tr>
<td>Acoustics</td>
<td>4</td>
</tr>
<tr>
<td>Lighting</td>
<td>5</td>
</tr>
<tr>
<td>History</td>
<td>4</td>
</tr>
<tr>
<td>Guest Rooms</td>
<td>7</td>
</tr>
<tr>
<td>Restaurant</td>
<td>3</td>
</tr>
<tr>
<td>Bar and Lounge</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2: Student Research Topics from Analysis Themes and Slide Count for Presentation

Photo 8. Presentation Day
Value of research in the interior design studio: Student perspectives

Sibel Seda DazkIr, Georgia Southern University

Many researchers emphasized the importance of integrating research in the interior design education (e.g., Dickinson, Marsden & Read, 2007; Guerin & Thompson, 2004; Hasell & Scott, 1996). According to Gibson (1994), integrating research process into class projects enables students to improve their critical thinking. Dazkir et al. (2013) found that beginning design students lack the skills to locate appropriate sources and do not appreciate the value of research in their design process. With this pilot study, students’ use of research findings and their attitude towards research are explored in the senior interior design studio by collecting data from students via a questionnaire, student presentations and projects. The students worked on a commercial office project in groups throughout the semester. They were required to write a paper synthesizing findings from peer-reviewed journal articles and other credible sources. The groups presented three peer-reviewed academic journal articles in class. They turned in their paper and answered questions about their experience with locating sources, especially research articles, and their attitude towards the use and importance of research in the design process.

Five female and two male students (Mage = 23) provided responses via likert scale and open-ended questions. The majority of the students reported the paper assignment as not difficult but time consuming. The students believed that research is either very important or essential in the design process. It was reported that research allows them to understand the project better, guide their design process, and help them understand client needs and optimize the space. One student expressed that understanding client needs and welfare requires research, and “Without research, we are merely selecting pretty options.” In average, students spent quite a bit of time locating research articles. One respondent explained that the effort to find the most useful articles among many results took a lot of time. Another student explained, “We wanted to have quality research to back our design ideas.” The majority of the students (n = 5) believed the research articles have substantial importance regarding their contribution to the design process and the design knowledge. The students explained that the findings from the articles guide their design process, provide design solutions, help them learn about the user needs and learn from others' examples. One student complained about the conflicting information and ambiguity of results found in an article. Observation of student presentations revealed that the students needed instructor guidance locating credible and easy-to-understand journal articles despite their experience with research in their previous studios. The students applied the knowledge they gained from their search of various sources on their design projects. The participant responses support that through their interior design education, the students successfully learned to integrate research findings into their design process and research papers, and they appreciate the value of research in the design process. More data need to be collected to draw conclusions about the success of integrating research in the interior design studio. Future research can focus on comparing responses between freshmen and senior interior design students.

REFERENCES
Paper Assignment Handout

STUDIO 4 - S14

Due 2/25/2014, W7

Paper sections:

a. Title page with group member names
b. Table of contents
c. Company profile - Use the information form the project handout.
d. Site information
e. User analysis - information about employees and visitors -
   • Interpret the employee profile of MC Southern financial. What demographic characteristics do they have as they work for a high-end financial company?
   • Who would visit MC Southern financial? What demographic characteristics would they have?
f. Literature review (make sure all your sources are reliable, provide APA style references and in-text citations)
   Search sources for the following topics:
   • office spaces in general
     • e.g. information about color, teamwork, communication, circulation, indoor plants, lighting, noise-control/acoustics, privacy concerns, generation differences, workplace trends, and etc.
   • Sustainable/environment-friendly materials that can be used in commercial offices and their influence on the environment.
     • How do materials used in office interiors influence indoor air quality?
   • Types of finishes, furniture, materials, and equipment that can be used in office interiors- consider topics such as durability, sustainability, and aesthetics.
     • Office systems furniture (what kinds of furniture are used?)
   • Anthropometrics/ergonomics

*In your paper, the literature review should include information from [you should cite them in your paper]:
   ✓ 3 journal articles that are approved by your professor
   ✓ 10 of the sources that are posted on Folio/contents/sources
   ✓ 5 more other sources from magazine articles and news articles
   ✓ 2 books

   ✓ 3 research reports from Steelcase website under resources/research projects
   ✓ 5 articles from Steelcase 360 magazine

g. References/bibliography - in APA style (check out Purdue Owl website)
h. Appendices (organized) - print your sources
QUESTIONNAIRE

Section 1: Demographic data
1. How old are you? ___________ years old

II. What is your gender?
   a. Male
   b. Female

III. What is your status?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior

IV. How long have you been at ______ University? ____________ Years

V. What is your ethnicity?
   a. Asian
   b. White
   c. African-American
   d. Latino
   e. Native-American
   f. Other ______

Section 2: Questions
As a part of your design process in Studio 4, you were required to locate academic articles, summarize them, and present them in class. You were also required to do research on office design related topics and turn in a research paper.

Please answer the following questions in regard to your experience with the research assignments described above.

1. Have you ever read an academic journal article before working on this assignment? Please circle one of the following: Yes No

2. Have you ever located an academic journal article by yourself before this assignment? Please circle one of the following: Yes No

3. Have you ever turned in a research paper before? Please circle one of the following: Yes No

4. What type of print and/or online sources have you used in your research paper (online news article, print book, Wikipedia, and etc.)? Please explain below.

5. How much do you think research (researching articles, web sources, and books) is important in design process? Please circle one of the options below.

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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Not important</td>
<td>Somewhat important</td>
<td>Very important</td>
<td>Essential</td>
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6. How difficult was it for you to locate an academic journal article for your assignment? Please circle an option on the rating scale below.

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<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Very easy</td>
<td>Easy</td>
<td>Neutral</td>
<td>Difficult</td>
<td>Very difficult</td>
</tr>
</tbody>
</table>
7. Please explain your response for question 6: Explain/justify the level of difficulty you experienced locating academic article/s. Why was it difficult/easy? If you experienced difficulties, what difficulties did you experience?

8. How much time, as a group, did you spend on locating an academic journal article for your paper? Please rate the amount of time that you think your group spent and circle one option below.

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<tbody>
<tr>
<td></td>
<td>None</td>
<td>Too little</td>
<td>Some</td>
<td>Quite a bit</td>
<td>An extreme amount</td>
</tr>
</tbody>
</table>

8. Please explain your response to Question #8 below. Why did you spend that amount of time on it?

9. How useful/important do you think the research articles are regarding their contribution to your design process and your design knowledge? Please circle one option from below.

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<tbody>
<tr>
<td></td>
<td>None</td>
<td>Little</td>
<td>Some</td>
<td>Substantial</td>
</tr>
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</table>

10. Please explain your response to the question #9 below. Why do you think it was useful/not useful?

11. How difficult was it to understand the research articles you or your peers located & used? Please circle one option below.

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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td></td>
<td>Very easy</td>
<td>Easy</td>
<td>Neutral</td>
<td>Difficult</td>
<td>Very difficult</td>
</tr>
</tbody>
</table>

12. Please explain your response to question #11 below. Why was it easy/difficult?

13. How difficult was the research paper in overall? Please circle one option below.

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<th>3</th>
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<tbody>
<tr>
<td></td>
<td>Very easy</td>
<td>Easy</td>
<td>Neutral</td>
<td>Difficult</td>
<td>Very difficult</td>
</tr>
</tbody>
</table>

14. Please explain your response to question #13 below. Why was it easy/difficult?
15. How much time did you spend on the research paper in overall? Please circle one option from below.

   1  None
   2  Little
   3  Some
   4  Substantial

16. Please explain your response to question #15 below. Why did you spend that amount of time on it?

17. How useful do you think the research paper assignment was in overall? Please circle one option from below.

   1  None
   2  Little
   3  Some
   4  Substantial

18. Please explain your response to the question #17 below. Why do you think it was useful/not useful?

19. Please rate the level of importance/significance of research is in design process? Circle one option from below.

   1  Not important
   2  Somewhat important
   3  Very important
   4  Essential

20. Please explain your response to the question #19 below. Why do you think it is important/not that important?

21. How important/useful do you think benefiting from academic research articles in design? Please circle one option below.

   1  None
   2  Little
   3  Some
   4  Substantial

22. How do you think this assignment can be improved? Please write your response below.
23. In your previous studios, what was your typical research process? How much and what kind of research have you done? Please describe below briefly.

24. Please briefly answer the following:
   a. If you were not required to do research by your studio instructors, would you still do research in your design projects?

   b. What kind of research would you do?

   c. When would you do it (during which step of your design process)?

25. Please add any other comments that you have about your research experience and this study below.
Structuring an Interdisciplinary Studio: A Study Between the Disciplines of Art and Design

Dawn Haynie, Georgia State University

Many Interior Design programs emphasize an interdisciplinary approach among traditional disciplines of design. They utilize both community and business partners to provide real-world opportunities for students. Often these design challenges integrate the practice of interior design with other construction industries; but more recently, developers are integrating art, and its associated programming, into their projects. Art as a discipline is distinct from Design; thus structuring a studio environment that facilitates greater exchange and communication should be studied. This past year, six students from different disciplines – interior design, graphic design, and photography, came together for a unique studio. They were asked to conceptualize, develop, budget, and construct an exhibit for a local developer. The student’s design challenge was to create an exhibit that not only described the building’s historical significance and the developer’s marketing efforts for re-branding/repositioning, but to do so in a way that was more conceptual than literal so the space could host outside events for the local art community. The instructor’s challenge was to structure a studio that fostered each student’s individual creativity as they negotiated the challenges of working in an interdisciplinary team. For Phase I, each student worked independently generating conceptual ideas for the exhibit, and then the students communicated and critiqued each other’s ideas based upon their own experiences and discipline specific knowledge. For instance, Interior Design students commented on circulation and life safety as necessary for an event space; Graphic Design students commented on communicating graphically the building’s historical significance for informative marketing; and the photography student commented on expressing these ideas metaphorically. For Phase II, students worked together to develop three distinctive schematic designs for presentation to the client; they communicated these ideas as a design team; and they resolved the client comments into a single design project. For each student, differences in the design process became evident as they tried to work together as a team, specifically within the different disciplines and among the tools used for design development and presentation. Distinctions were noted between not only analog and digital methods of development but in the types of software. Subsequently, students learned to work collaboratively, often integrating various techniques from the other disciplines into their own processes. For Phase III, students devised a schedule to collectively construct the exhibit by the end of the 16-week term. Notably, students were required to work outside of their discipline for some portion of the construction. As a result, students were most challenged by the documentation of their work, and all the technicalities, necessary for construction. As an important approach to design education and specifically to the current trends in practice that lean towards an interdisciplinary approach, the structuring of a studio course to allow for more open communication, greater understanding, and exploration becomes critical to insuring our students success in future practice. As a result of this studio structure, students gained insight and perspective from one another’s discipline specific knowledge, each student expanded their own design language, and they learned greater communication and negotiation skills.

REFERENCES


Chicago
Image 1
Exhibit resulting from the Interdisciplinary Studio of Art and Design students
Students Who Give a Damn: Encouraging the Next Generation of Designers Through Community Engagement

Travis Lee Hicks, University of North Carolina Greensboro

PEDAGOGICAL PROBLEM How can design education equip students to excel in interior design while introducing broader concepts of community and civic engagement that tap into students' personal passions? INTRODUCTION Influenced by theories of Ernest Boyer around engaged scholarship and by the public interest design research and practice of Bryan Bell of Design Corps, the author challenges interior architecture students to identify community-based, social, and civic-oriented issues and then act on these issues through their studio projects. In a fourth year capstone studio, students identified issues that ranged from local food deserts, homelessness, low income housing, and preservation, and community partners included Habitat for Humanity, a local homeless shelter, and a neighborhood association. Solutions ranged from tiny houses, an interior fit-up of a church converted into a homeless shelter, an orphanage in Haiti, and a local community garden greenhouse. EXECUTION A critical component of the studio was that of community interaction. Students identified issues on and off campus, and the author connected students with potential community partners. The studio became a space for co-teaching and co-learning, where community partners were invited to interim reviews and less formal meetings or critiques throughout the semester. Students claimed ownership over the time and space and projects, and a sense of purpose emerged from their work. While there was no promise of built solutions, the author challenged students to pursue projects with the potential of being installed or built. One student, for example, identified a site in Haiti while on a missions trip during the semester. She took everyone from her missions team with her to document and analyze the site, and she returned more informed about her work but also inspired to imagine this project's being completed and constructed in Haiti. Another student worked with a local non-profit to redesign classrooms in a local church in which the non-profit plans to implement this student’s scheme for a family homeless shelter. Yet another small group of students worked with Habitat for Humanity on a series of house renovations in a historic neighborhood. Working with Habitat staff and builders, the students generated construction documents for two houses that will be renovated using the students’ designs. OUTCOMES The community-engaged design process as implemented was different from the author’s previous community-based studios in that students identified their own issues, sites, and projects. This capstone studio filled the curricular demand for a comprehensive and independent project. Although some students chose to work in pairs or small teams, the work was executed with considerable independence. Challenges of this community-engaged project ranged from time management issues, managing a variety of projects and partners, and time limitations resulting from a single semester-long project. Successes ranged from strengthening connections between the university and the community to stirring students to tap into their own passions and find connections to practice, both traditional models and newer models. For example, one student who collaborated with Habitat for Humanity began a paid internship with Habitat following graduation. APPENDIX Project brief and selected student handouts follow, edited to remove identifiers.

REFERENCES


co-design capstone studio
...design for - and with - the community

introduction

IAR 412 marks the culmination of your design studio experiences; therefore, I will expect you to draw upon your wealth of experience to develop a comprehensive, capstone project. In previous studios you have been asked to design at different scales, ranging from small objects to large-scale buildings, and you have generated designs for different building types. In the past you have been handed a program, site, or other constraints. While you will still have constraints this semester, you will have more freedom to explore your own design agendas as you demonstrate your comprehensive conceptual and technical skills.

The hallmark of this studio will be one of community-engaged design. Distinct from community service projects, community engagement refers to the process of working with not only the “experts” in the design community but also the “users” or “locals,” those who will benefit directly from your work. A past and current practice in community engagement seeks to identify community partners in need of design solutions and to work with those community partners to arrive at these solutions. Other terms to describe similar approaches to design include Public Interest Design, Participatory Design, Socially-Responsible Design, Co-Design, and Values-Based Practice.

format

Balancing individual assignments with group assignments, IAR 412 is a studio-based course that centers around two and three-dimensional explorations of form and space. You will be asked to look to a broad range of built precedents and visual precedents to hone your skills of analysis, interpretation, and generation of ideas. Built precedents will be drawn from contemporary examples, and visual precedents will be drawn from a wide range of visual media including books, magazines, websites, and videos. The studio format will center around group discussions and pin-ups; however, personal desk crits will also be available periodically in order to provide you more personal feedback and discussion.

capstone experience

A capstone experience is intended to be a final project to challenge you to synthesize your ideas, technical skills, personal agendas, etc., and this studio will provide this opportunity. You are going to be challenged to connect your work to a community issue that you identify through initial research this semester or from past experience. For example, issues could include homelessness, low income housing, public transportation, historic preservation, walkable communities, public art, and many other issues. If you have trouble finding issues that are relevant to you, then I will provide a handful of community-based projects that can be addressed through your work this semester. These projects include a public mural in the Glenwood neighborhood, a tiny house community in Stokes County, a bus shelter campus, the renovation of houses in Glenwood, an urban garden installation in Habitat for Humanity, and various projects.
iar 412
interior architecture iv

objectives
This section of IAR412 will provide a place for you to analyze, program, conceptualize, and design. Through active participation in this studio, you will be able to:

- apply a variety of design principles and concepts.
- analyze existing built environments.
- collaborate with community partners to arrive at design solutions.
- integrate digital technology in the visualization and development of designs.
- integrate furniture and life safety systems around other construction systems, as applicable.
- generate design schemes at multiple scales, responding to codes, guidelines, and regulations.
- communicate design concepts using a variety of professional-caliber media and techniques.

organization
Ideas and information will be exchanged through desk crits, class discussions, slide presentations, pin-ups, and formal reviews throughout the semester. You are encouraged to generate regular and ongoing documentation and assessment of your work as part of the design process. Utilizing techniques of your choosing, you will record both images of artifacts and analysis of your work throughout the semester. You should include initial sketches and thoughts as well as deeper investigation and scrutiny through presentation models, drawings, sketches, and other representations. I encourage you to take ownership of your design process and to develop techniques that will convey your process to people inside and outside

desk crits
During this time I will meet with each student individually, at your desk, to discuss your work. In order to get the most from desk crits, you should be prepared to discuss and share your progress at the beginning of class. You are responsible for calling my attention to your personal concerns about your progress.

informal lectures + discussions
An important component of studio culture is lively discourse. We will regularly meet as a group to discuss historical and contemporary issues pertinent to work within studio. Everyone is encouraged to engage in these discussions and contribute material in support of their own interests.

studio pin-ups
We will regularly meet as a studio to discuss all of the work in the studio. Students are expected to explain the current status of their work and engage in discussion about the work. Students are expected to be active participants in class discussions and to hone their skills of analysis, criticism, and oral and visual communication at all times.

formal presentations
You are expected to make formal presentations to faculty and students as well as to visiting guests on the campus. These formal presentations become the foundation upon which you will develop skills critical to your success in the realm of professional practice; additionally, they provide you with the opportunity to present your ideas to others who can help you advance your work in any number of ways.

charrettes
“the intense final effort made by architectural students to complete their solutions to a given architectural problem in an allotted time or the period in which such an effort is made” – www.meriam-webster.com
A hallmark of my approach to design development, charrettes will be used periodically throughout the semester to push the development of your work. Come prepared for charrettes with drawing and model-making tools, your ideas, and an open mind.
assignment 2.0 • schematic design

point of departure

You are to take the proposal developed in the first month of the semester and develop this proposal into a more specific design proposal for the particular avenue you have chosen to pursue. Depending on the nature of your design focus, your work will vary from person to person. The common denominator in your work, however, will be the schematic design level expected from this work and the potential impact your designs will have on others, namely your community partners or communities that will benefit from the work.

Given the independent nature of this studio, your time management skills and self-motivation are critical. While there is great freedom in the work generated this semester, you will need to maintain your focus and maintain a collaborative spirit with those who share your focus or particular project. There will be many opportunities to present your work to groups, both inside and outside the studio.

objective

Your efforts over the next month should be focused on generating design documents, mock-ups, and prototypes that will contribute to your project’s development. The objective is to take your project proposal from the conceptual stage to a more defined schematic design solution or solutions. In order to illustrate this development you will need conventional design drawings, like plans, elevations, sections, perspectives, as well as information about materials, furniture and equipment (if applicable), budget, and schedule. You should approach this phase of the project as though your project will be built, regardless of the final outcome of your efforts this semester.

deliverables

You are to print your work in an 11x17 format (and save in a PDF format), to be pinned up (or projected) for the final review. In addition, you are to generate scale models, mock-ups, and prototypes of your work. The following materials are required in order to complete this assignment:

- sketches
- multiple study models, mock-ups, prototypes
- renderings, digital or hand-generated
- scaled drawings, digital
- material samples for finished products
- cost estimate and construction schedule

note

If you are inclined to use a different process to arrive at your guiding ideas than the one implied by this list, then let’s talk one-on-one about this list. I invite proposals of alternate, yet equivalent, lists for my review.

deadline

This assignment is due 07 March at 1:00pm, when there will be a formal review of the above-mentioned deliverables during studio. Additionally, you are to turn in a CD/DVD of your work on 17 March.
You are to take the design that you developed during Unit 2 and extend your work to a high level of resolution. For some, this resolution will involve a full-scale construction of a particular piece or portion of your design. For others, this resolution will involve a thorough set of documents, models, renderings, etc., of a design to be implemented in a future project or to be used for fundraising for said project. You are responsible for addressing your particular work plan with me to arrive at a final list of deliverables.

Given the independent nature of this studio, your time management skills and self-motivation are critical. While there is great freedom in the work generated this semester, you will need to maintain your focus and maintain a collaborative spirit with those who share your project or interests. Studio culture will be critical during this phase of your work, as I encourage you to resist the temptation to tune out and work completely off-site. Be present in studio during class time, and continue to work in outside of normal class times so that you can contribute to the studio discussions and collaborate with your peers.

The objective of this phase is to take your ideas and schematic designs from earlier this semester and achieve a finished state of execution. You should focus on either construction of your project, if small enough, or construction documents for your project, if larger or more complex. Construction documents shall include drawings such as plans, elevations, sections, details, etc., and shall also include specifications. As the culmination of your studio experiences in , you should take pride in your work and make this project portfolio-worthy.

You are to print your work in an 11x17 format (and save in a PDF format), to be pinned up (or project-ed) for the final review. In addition, you are to generate final models, prototypes, or finished pieces of your work. The following materials are required in order to complete this assignment:

- detailed construction drawings, digital
- material, furniture, and product specifications
- renderings, digital or hand-generated
- material samples for finished products

If you are inclined to use a different process to arrive at your guiding ideas than the one implied by this list, then let's talk one-on-one about this list. I invite proposals of alternate, yet equivalent, lists for my review.

This assignment is due no later than April 28 at 1:00pm. Additionally, you are to turn in CD/DVD of your work on April 30.
come one, come all
iar412 co-design studio

community-based student projects

prof. ________ • final review

tuesday, april 29 • 1:00-4:00pm • room 401
Storytelling: A Potential Technique to Secure the First Design Job and Beyond

Amy Mattingly Huber, Florida State University
Jill Pable, Florida State University
Annette Jones, Milkbox
Jonathan Rae, HOK Tampa

“We are creatures of story, and the process of changing one mind or the whole world must begin with ‘Once upon a time.’” -Jonathan Gottschall (2012) Everyone loves a good story. Indeed, psychological studies suggest that “attitudes, fears, hopes, and values are strongly influenced by story”, and more so than strictly factual presentations (Gottschall, 2012). Storytelling approaches may be a potential tool for designers seeking their first job with their portfolios. The value of storytelling is witnessed in design firms’ own use of this approach, as they often use compelling stories to win projects, explain their missions, and recruit candidates. Given that firms hiring entry-level interior designers can see more than 100 applications for a single open position, we suggest storytelling may hold potential to deliver student messages that capture an interviewer’s attention. This panel presentation will provide examples of storytelling within student portfolio systems and discuss the need for this approach from the point of view of two educators, a market strategist and a practitioner that hires entry level designers. Setting oneself apart from crowds of applicants is difficult for interior design graduates, as content knowledge, technological prowess, and even high caliber design skills are often viewed as mere base-level criteria by interviewing firms. Firms look for candidates who are ‘real’, can empathize, communicate effectively, and above all, think deeply (Bender, 2014). We suggest that verbal and visual storytelling approaches may represent a significantly different and more relevant tactic than the current showcase-of-work norm in student portfolios, and can be realized in changes to graphic layout approaches, text descriptions, and verbal portfolio presentations (Figure 1). When a candidate presents their work through authentic stories of successfully applied skills, realized concepts or creatively expressed values, we believe they may have the advantage because they paint a richer picture of who they are. To make this change, students must shift their view and see their graphics not as ends in themselves, but as catalyst for the design thinking that brought the works into being. Doing so brings their point of view into closer alignment with the priorities that employers hold in selecting new hires. This panel session describes our beginning exploration of how storytelling can be woven into graduating students’ portfolio systems, verbal presentations, and videos. Educators, a consulting marketing specialist/content strategist and a design practitioner will share views on storytelling and its expression within such deliverables produced in recent classes at the educators’ institution. The educators and marketing specialist will discuss their partnership that developed instructional processes and field trips on the topic. “Point of view” student videos will also be shown, including one that received over 200 hits within hours of posting to social media (Figure 2). Finally, the design practitioner panelist will describe the experience of reviewing student portfolios, and those qualities that stand out for those that secure the job. In sum, we sense that storytelling can be a winning edge for a student in securing a design position—as well as thriving in design practice.

REFERENCES

Figure 1: A student portfolio page spread shows a storytelling approach through process graphics and text callouts. (student name withheld for blind review)

Figure 2: A point of view video that assisted the design student in securing a high-profile career position. (student name withheld for blind review)
Active Learning in a Historic Neighborhood: a Residential Design Studio Pedagogy

Beth McGee, University of Florida

Using traditional lectures as well as active learning strategies (Prince, 2004) that included collaborative, cooperative, and problem-based learning, students working in groups were able to articulate their emerging design challenge through research and hands-on experience by working with and within a local community. The 6 vacant homes available for the project have varying degrees of vitality and neglect and are located in a historically significant neighborhood in a mid-sized southern city. The 6 student groups established project goals based on a review of literature about the community, including the community’s master plan. Students also interviewed key members in the community to ensure the residents’ voices were heard. Students’ research revealed that the neighborhood and these 6 houses are important to the community and that a key community goal is to increase home ownership with more affordable housing. Each group then selected one existing home and developed a remodeling plan that focused on affordable, sustainable, and human-centered features. The research into the heritage of the homes showed these buildings as important to the neighborhood sense of place (Kopec, 2006), thus preservation of the houses and maintaining important features were included as key affordable and sustainable goals (Historic American Buildings Survey/Historic American Engineering Record & Historic American Landscapes Survey, 2004). This was reinforced when students used the Historic American Building Survey approach to document the existing conditions of these homes (Burns, Historic American Buildings Survey/Historic American Engineering Record., National Park Service, & U.S. Department of the Interior, 1989). It also provided the neighborhood with information important to the potential rehabilitation of these houses. Remodel plans optimized preservation of existing features while also thinking about healthy, “green” material specification that would help create more affordable and healthy living environments. Each group was also required to specifically research and identify at least one affordable and sustainable feature. Students included justification and product specifications for it in their remodel plans. Human-centered design lectures, activities, and readings, both in and out of the classroom, were integrated into the design process to support development of a usable home that could meet the varying abilities and ages of the possible neighborhood residents (Steinfeld, 2012). An assignment where students experienced a disability and presented the experience to class further aided this portion of design development. Through the process of completing sets of plans and models, students had a better understanding of their proposed designs and showcased practical renovation options to the community. In summary, the integration of this hands-on, group project provided a unique opportunity for experiencing the design process from program development through to a final presentation of designs. This project achieved the primary goals of the studio regarding introducing residential design as well as focused on introducing sustainability and human-centered design through active learning. By teaching these concepts all together in an introductory interior design studio, the students were allowed to actively experience and engage with sustainable and human-centered design at the forming of their process while aiding meaningful outcomes. The students were also very engaged in the project and with others along the way. The final designs were displayed for community input and to aid preservation of the homes.

REFERENCES


**Appendix:** (photo credit Author)

![Figure 1: Students learning on site how to record historic structures](image1)

![Figure 2: Final presentation deliverables included a board dedicated to the existing conditions, one explaining the proposed plan, a material board, model, and a board describing the sustainable features.](image2)

![Figure 3: A final display of work throughout the summer was added for community access. A common graphic language developed within the class for presentation continuity. Each group also had a small handout with the existing building specifications on it for easy reference.](image3)
Figure 4: A presentation board for a house on Silver Avenue showing the group's historic documentation skills and the existing conditions.

Figure 5: A presentation board showing the hypothetical redesign for a house on Silver Avenue. These second year undergraduates learned many new skills and concepts, including AutoCAD, hand rendering for a studio project, residential design basics, sustainable design concepts, universal design, historic preservation, and also the use of a design concept in an interior project. It was also their largest scale design problem to date. Bringing many learning objectives all together through a hands-on, group, “real-world” project engaged the students and provided a way to teach interior design where they were thinking about sustainability and human-centered design as holistic design necessities from the very beginning of the
Precedent, Industry Partnership, and Competition: A Case Study in Furniture Design

William Riehm, Mississippi State University

The potential role of precedent as a source for design inspiration as an integral part of a furniture design studio is well established in the interior design literature (King 1998). This established understanding recognizes the need for dialogue between the past and the present in terms of research and thematic reference. But recently the question of precedent’s role has been challenged with concern for presupposition, misuse, or misprision (Weddle and Neveu 2011). This presentation reviews an updated approach to the precedent use in a furniture design course. Through a process of industry engagement and competition, precedent becomes an industry specific finite set and precedent application becomes an open source dialogue between industry and student. Specifically the project is a furniture design competition created in tandem with a regional Knoll furniture dealer. With this competition students are challenged to take Knoll into the future based on Knoll’s past and design a discrete piece for furniture. Hypothetically, their design could become the next and newest piece for Knoll. This is a capstone furniture design project within a senior level interior design program. The precedent in this case is the exiting and past lines of Knoll furniture. This give students a specific precedent set, but allows them to access it on their terms. This open source approach to the precedent information allows the students to develop their design as evolutionary, reactionary, or avoidant of precedent. This freedom from a structured precedent focused pedagogy allows for student outcomes to range within a context rather than a presumed specific interpretation that has come to define precedent study pedagogy today (Weddle and Neveu 2011). Industry partnership provides an actual, not hypothetical, market sector and employment base for the participating students. This alters the studio experience as well. The student’s intellectual interaction with the designs of Knoll is buffered by the potential reality of employment and engagement within this industry. It is a current topic in higher education that job placement and industry interaction are now becoming more integrated into education (Asa et. al. 2013). This case study reveals the impact this feathering of industry interaction and education has on learning outcomes. It also allows for issues industry influence in the classroom to be reviewed. This presentation will review the project specifics, the timeline, and the preparation students have to build the skills necessary to complete the project. Student work will be presented in both physical model and visual digital form, and analysis will be made of the various ways students chose to engage both precedent and the issues of working within the context of industry partnership. This work will be set in contrast to previous design exercises and problems that students confronted as well. The results vary, seeing as how they are creative efforts, but in conclusion it becomes clear that students purposefully focus on identifiable precedent, potential marketability, and functional concepts as a result of this competition’s structure.

REFERENCES


Figure 1. Example of Student Work, 2014.

Figure 2. Example of Student Work, 2013.
Figure 3. Example of Student Work, 2013.

Figure 4. Example of Student Work, 2014.
Figure 5. Example of Student Work, 2013.
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

Steven B. Webber, Florida State University

What would happen if a lecture-based Construction Systems course took on the structure of a studio-based course? It is the hypothesis of the author that students would learn more if the instructor would “flip” the course so that information gathering occurs largely outside of the classroom, and the time between the instructor and learners is spent in more kinesthetic-related activities, such as site visits, sketching, and in demonstrations. Research might suggest that students associate their learning experience with their performance in the course which is influenced by the coordination of the instructor’s teaching style to the students’ learning style (Kolb, 2005). This theory of compatibility between learning styles and teaching styles resulting in improved student learning outcomes is known as “meshing”. The meshing theory is not consistently supported in research, and, at times, meshing leads to mixed learning outcomes (Pashler, 2009). These points are in conflict with one another and the author seeks to find a methodology that would improve the learning outcomes of interior design students in the often dreaded construction systems course. Design educators are confident that undergraduate design students have very diverse and multi-modal learning styles (Demirkan and Demirbas, 2008; Watson and Thompson, 2001), but very little research has been done on graduate interior design students. To address this lack of information regarding graduate interior design students, the author used the VARK (Visual, Auditory, Read/Write, Kinesthetic) learning styles assessment test by Neil Fleming. The findings show that the participants are largely multimodal (V-A-R-K; V-A-K; V-R-K; V-A) at 76.9% of participants, and some strictly read/write (7.7%), visual (7.7%), or kinesthetic (7.7%). This preliminary data shows relative consistency between undergraduate and graduate-level interior design students. After surveying and testing graduate students on their learning styles, the author analyzed and overhauled a construction systems course that included a blend of undergraduate and graduate design students. The author spent one semester teaching the course in a lecture format as established by precedent, then evaluated the teaching style of the course. The original course relied heavily upon in-class lecture (auditory-visual) to convey course content and on assessment through written tests (read/write-visual) that comprised 90% of the course grade. The new course format used a balanced teaching methodology in an effort to reflect students’ learning styles, and to make the course more like a design studio. Before and after comparisons are shown in appendices 1, 2, and 3 of in-class time usage, grading distribution, and grade results, respectively. In class time shifted towards a multi-modal teaching style, weight of grades shifted proportionately to reflect the usage of in-class time, and overall student grades increased by 5% after the changes were made to the course. After observing the improvement in course grades and student course evaluations that resulted from this shift of teaching methodology, arguments in support of the learning styles meshing theory are inconclusive. The improvements in learning outcomes could have easily resulted in aligning the teaching methodology to the concepts taught in the course, as purported by other researchers (Glen, 2009).

REFERENCES


Psychological science in the public interest, 9(3), 105-119.

Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

APPENDIX A: GRADUATE INTERIOR DESIGN STUDENTS VARK LEARNING STYLES TEST RESULTS

Overall Test Results

Modality Comparison

Individual Answer Distribution
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

APPENDIX B: COURSE CHANGES IN TERMS OF TIME AND GRADE DISTRIBUTION

FALL 2012:
- V-K (Ex. + Resp. + S. V. V.) 15%
- V-A (Tests) 11%
- V-A (Lecture) 74%

Allocation of Time in Class

Grade Distribution for Undergraduate Students
- Tests (V-R) 90%
- Assignments + S.B.’s (V-A-R-K) 10%

FALL 2013:
- V-K (Ex. + Resp. + S. V. V.) 19%
- V-A (Tests) 37%
- V-R (S = T) 44%

Allocation of Time in Class

Grade Distribution for Undergraduate Students
- Tests (V-R) 40%
- Assignments + S.B.’s (V-A-R-K) 35%
- Papers (R) 15%

Grade Distribution for Graduate Students
- Tests (V-R) 75%
- Assignments + S.B.’s (V-A-R-K) 20%
- Papers (R) 15%
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

APPENDIX C: STUDENT COURSE GRADE COMPARISONS

Fall 2012:

- Avg. Grade: 88
- Test 1: 78
- Test 2: 78
- Test 3: 88

Fall 2013:

- Avg. Grade: 88
- Assignments: 95
- Sketchbooks: 82
- Unit 1 Test: 90
- Unit 2 Test: 91
- Unit 3 Test: 99
- Unit 1 Quiz Avg.: 88
- Unit 2 Quiz Avg.: 91
- Unit 1 Quiz: 78
- Unit 1 Quiz Avg.: 88

0 10 20 30 40 50 60 70 80 90 100
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

APPENDIX D: COURSE CHANGE SAMPLE (SKETCH BOOK ASSIGNMENT BRIEF)

One of many assignment additions to the revised course increasing the studio type of organization. Text and sketch samples reduced in size for purposes of the appendix.

Assignment 1: Sketch Book

Objective
When we think of sketching it is typically assumed that we are talking about the early phases of a design -- programming and schematics. Sketching is, however, a valuable tool throughout the design process including design development, construction documentation, and construction/contract administration. This semester-long sketch book assignment will help you to think through issues of technical detailing while sketching. The attached examples are good places to start, but you can do better.

Requirements:
Sketch three construction details each week. A minimum of one sketch must be 3D. Sketches must have the following characteristics:
1. Draw to an architectural scale (likely 1 1/4", 3", 6", or full scale)
2. Approximately 8"x10" or larger in size on the page
3. Include dimensions
4. Include annotations with leaders
5. Include a variety of line weights and line types based upon accepted drawing conventions
6. Include poche and hatch as appropriate to indicate materials in plan, section, elevation, or isometric.
7. Include a title, scale, and number (start with "O1" and continue in sequence throughout the semester) in a format typical to construction details.
8. In your notations, you must correctly use a minimum of 5 terms each week from our vocabulary list (see lectures and course pack). Use new terms as often as possible. Underline these terms in your sketch. Read ahead in the course packet as necessary to become familiar with construction terminology.

Subject matter can be found by looking through design magazines, by observing the environment around you, and by pulling ideas from lectures and discussions in class.

Grading

<table>
<thead>
<tr>
<th>Grading Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoroughness/Size of sketch</td>
<td>30%</td>
</tr>
<tr>
<td>Thoroughness of annotations and dimensions</td>
<td>30%</td>
</tr>
<tr>
<td>Line and poche/hatch quality and hierarchy</td>
<td>30%</td>
</tr>
<tr>
<td>Title Information</td>
<td>10%</td>
</tr>
</tbody>
</table>

Due Dates:
Sketchbooks will be due every two weeks (6 sketches total) and will be checked during normal class time by the TA.

SB1: Wednesday, Sep. 4
SB2: Wednesday, Sep. 11
SB3: Wednesday, Oct. 2
SB4: Wednesday, Oct. 16
SB5: Wednesday, Oct. 30
SB6: Wednesday, Nov. 13
SB7: Monday, Dec. 2
Does Meshing Teaching Styles with Learning Styles Produce Improved Outcomes in the Context of a Construction Systems Course?

APPENDIX E: STUDENT WORK SAMPLE (SKETCH BOOK ASSIGNMENT):
This shows one of many student work samples increasing the use of multi-modal learning styles.
ABSTRACTS

CREATIVE SCHOLARSHIP
Tower Base

Amy Boyett, Georgia Southern University

The concept for this piece is directly inspired from a 2012 trip to Charlotte, NC and more specifically, a visit around the arts district of NoDa (North Davidson). While there, I photographed many features in the area including the historic South End water tower built in the 1920s for the Nebel Knitting Mill. Though the area's mills have long gone, the 125’ tower (A, B) remains as part of the new Design Center of the Carolinas. It is hard not to notice the tower’s massive form, but I was particularly interested in the simple riveted steel construction of the tower and the rusty textural layers formed over the steel from years of environmental exposure. This is best shown at the base of the tower. Where the tower’s massive base meets the ground was of special interest as it represents a unique juxtaposition of natural elements, an industrial structure, and a blend of textures and colors. The original tower base photograph (C) is the origin of the final Tower Base piece. To bring out the textural differences in the tower base, I began by editing the original tower base photograph in Photoshop to add contrast and also to obscure some of the photo’s details in order for the texture and color to stand out (D) At this point, I knew I wanted to paint the details onto canvas, but I didn't want to lose the industrial essence of the tower itself. Before beginning, I decided to design my own “canvas” to represent simple industrial construction. I began with six 4” square canvases (that I would use for the painted surfaces) and then had to design a system whereby these canvases could be attached together in a unique and industrial way. The final canvas uses 2 steel threaded rods drilled into each square secured with washers and nuts as well as a slotted flat metal bar across the top which holds the 2 sides together (E). Wire was attached to this bar to allow the piece to be hung on the wall. Next, I worked in Photoshop to organize the now edited tower base photograph to that it could be divided into 6 pieces (F). I printed the pieces and cut them individually so that each could be used as a guide for painting the details into each mini canvas. While working on each canvas, I realized that the sides of each canvas represented a way to add a 3 dimensional aspect to the work by allowing the image to bleed around the edges, top, and bottom (G). This also added another layer of difficulty in painting, but the result allowed the pieces to connect visually. By deconstructing the canvas, the overall image is harder to understand and allows the viewer’s eye to be drawn to each individual scene (H) and its own unique composition, textures, and colors while still maintaining connections to the gestalt. The final Tower Base piece is a visual expression of the meeting of industry and nature (I-M). It is also symbolic of the area where the tower itself is located, the historic South End. This area, once dominated by factories and mills, was overrun by nature, and now serves as the artistic epicenter of Charlotte.
Design as Art
"Tower Base", 2014
Overall size: 9" x 14"
Medium: Acrylic on (6) 4" x 4" square canvases bound together with 3/8" threaded dowels and nuts and a slotted flat metal bar across the top.

Artist Statement:
The concept for this piece is directly inspired from a 2012 trip to Charlotte, NC and more specifically, a visit around the arts district of NoDa (North Davidson). While there, I photographed many features in the area including the historic South End water tower built in the 1920s for the Nebel Knitting Mill. Though the area’s mills have long gone, the 125’ tower (A, B) remains as part of the new Design Center of the Carolinas.

It is hard not to notice the tower’s massive form, but I was particularly interested in the simple riveted steel construction of the tower and the rusty textural layers formed over the steel from years of environmental exposure. This is best shown at the base of the tower. Where the tower’s massive base meets the ground was of special interest as it represents a unique juxtaposition of natural elements, an industrial structure, and a blend of textures and colors. The original tower base photograph (C) is the origin of the final Tower Base piece.

To bring out the textural differences in the tower base, I began by editing the original tower base photograph in Photoshop to add contrast and also to obscure some of the photo’s details so that the texture and color to stand out (D). At this point, I knew I wanted to paint the details onto canvases, but I didn’t want to lose the industrial essence of the tower itself.

Before beginning, I decided to design my own “canvas” to represent simple industrial construction. I began with six 4” square canvases that I would use for the painted surfaces and then had to design a system whereby these canvases could be attached together in a unique and industrial way. The final canvas uses 2 steel threaded rods drilled into each square secured with washers and nuts as well as a slotted flat metal bar across the top which holds the 2 sides together (E). Wire was attached to this bar to allow the piece to be hung on the wall.

Next, I worked in Photoshop to organize the now edited tower base photograph to that it could be divided into 6 pieces (F). I printed the pieces and cut them individually so that each could be used as a guide for painting the details into each mini canvas. While working on each canvas, I realized that the sides of each canvas represented a way to add a 3 dimensional aspect to the work by allowing the image to bleed around the edges, top, and bottom (G). This also added another layer of difficulty in painting, but the result allowed the pieces to connect visually.

By deconstructing the canvases, the overall image is harder to understand and allows the viewer’s eye to be drawn to each individual scene (H) and its own unique composition, textures, and colors while still maintaining connections to the gestalt. The final Tower Base piece is a visual expression of the meeting of industry and nature (I-M). It is also symbolic of the area where the tower itself is located, the historic South End. This area, once dominated by factories and mills, was overrun by nature, and now serves as the artistic epicenter of Charlotte.
Design as Art
"Tower Base", 2014
Overall size: 9" x 14"
Medium: Acrylic on (6) 4" x 4" square canvases bound together with 3/8" threaded dowels and nuts and a slotted flat metal bar across the top

D. Edited Tower Base photo
E. Canvas construction
F. Tower Base photo divided
G. Detail of side bleed
H. Detail of top right corner
Design as Art
“Tower Base”, 2014
Overall size: 9” x 14”
Medium: Acrylic on (6) 4” x 4” square canvases bound together with 3/8” threaded dowels and nuts and a slotted flat metal bar across the top

I. Tower Base final (photo indoor)  J. Tower Base final (photo outdoor)

K. Tower Base final left side  L. Tower Base final right side  M. Tower Base final from top
Content(s) Drawer #D2 PKDT – F.R. – G.S.

Tad Gloeckler, University of Georgia

Title: Content(s) – Drawer #D2 PKDT – F.R.-G.S.
Materials: wood (solid maple, solid cherry, cherry-veneer plywood, birch-veneer plywood), stain/paint (multiple colors), steel
Dimensions: Drawer #D2 (closed) - 4" high, 12" wide, 16" deep
Drawer #D2 (full open) - 20" high, 12" wide, 30" deep
Completed: 2014
Drawer #D2 is a fragment of a larger project. The entire project, titled “Content(s)”, starts as a cleanly crafted, chest high piece of wood furniture with seven drawers – a dresser. Each viewer intuitively understands the utility of this object, and can imagine a relationship to the contents within. Content, is a compelling word with multiple and potentially divergent meanings. “Not desiring more than what one has” (The American Heritage Dictionary, 1982), is one possible definition. And “something that is contained in a receptacle” (The American Heritage Dictionary, 1982), is an alternate definition, also directly associated with this project. One definition implies emotional satisfaction. The other definition makes reference to objects. This project considers contentment (or lack of contentment), the accumulation of objects, a compulsive relationship with receptacles, and consequences of the mix. The entire project is very comprehensive and cannot be adequately communicated in ten images/pages. However, each of the seven drawers transforms into a stand-alone object/sculpture, so the project is presented in pieces – one drawer at a time. When “Drawer #D2” is removed from the dresser a textile pattern is first apparent (a reference back to dresser utility). Polka-Dot is the featured pattern for this drawer. The drawer contents/components are guided through a series of mechanical manipulations and transform into a sculptural fragment of an earth life-form (an ocean animal). The completed transformation is not obvious or representational. Instead, the goal is to create an intuitive reaction to what appears dissected and biological. The suffix, PKDT – F.R.-G.S. (see title) to Drawer #D2 suggests a classification system, and is intended to reinforce the experience of a dissected biological specimen. The drawer features three distinct layers: a skin layer (textile layer), skeletal or structural layer, and flesh layer serving as receptacle. Storage compartments/receptacles are uniquely integrated within the animal fragment, but space is compromised by the manipulations and resulting transformation of the drawer. Our comfortable existence has obvious environmental consequences? What are the less obvious consequences? Living examples of the animal fragment suggested by “Drawer #D2” depend on human compassion for their survival. What personal possessions compare in value to our shared earth and earth life-forms? What should fill the compromised receptacle space that remains after drawer transformation? The visual transformation from a simple drawer in an unassuming dresser; to a complex, dissected, biological assemblage, is intended to emotionally alert the viewer to unexpected intersections of contemporary lifestyles and natural systems. The project goal is to stimulate viewers to deeply reflect upon their own lifestyles and the objects they accumulate. References (APA) The American Heritage Dictionary. (1982). Boston: Houghton Mifflin Company.
This diagram provides an orientation for the location of Drawer #D2 in the context of the seven-drawer dresser.

Drawer #D2 is removed from dresser – then placed on stand and pedestal.
The top surface of the drawer suggests a textile pattern (*a reference back to dresser utility*). This drawer features a Polka-Dot pattern.

The following images are presented in order. The images attempt to show the mechanical manipulations required to reach the final sculptural form.
Skin layer (textile layer)

Skeleton, or Structural layer

Flesh layer - serving as storage receptacle

Dissected layers of the biological fragment suggested by Drawer #D2
Drawer #D2 in final form, instructions included.
Babel Amidst an Arising

Thom Houser, University of Georgia

Babel Amidst an Arising is the most recent of my site-specific installations influenced in part by a trip to a landfill near the famous Murano glass works in Venice, Italy. There fragments of brilliantly colored art glass re-emerged through recently planted groundcover, evoking images of rising bones summoned before the Final Judgment. This installation is inspired further by the story of the Tower of Babel in the Old Testament with its contradictions, delusions, and self-deceptions. This installation examines the world as we see it; how we portray it to others; and how they, in turn, portray it to us. It addresses these topics through manipulation of space, form, image, light, music, and sound. Intermingling religious references appear throughout. For example, at each of the four corners calipers lift figurative souls from private purgatories bearing ex-voto offerings engraved with images of loss and alienation. The rainbow, which serves as many symbols in our society ranging from Gay Pride to a sign of the Covenant between God and Man, is presented in a tower of recycled bottles containing colored water. However, the bottles are partially drained of the water (and of the rainbow as a sign of Hope) in receding steps consistent with proportions of the Fibonacci number sequence: the same sequence that approaches the perfection of the Golden Mean when seen positively, but which is presented negatively as a loss of hope here. There are eight 48” x 96” panels bracketing the installation. Four sides of these present part of the text of the story of the Tower of Babel in English and a dozen other languages. These same passages are used as audio overlays on the videos projected on four monitors around the base of the installation. Another four panels have images of the ruins of the Temple of Apollo in Delphi, Greece. This site was used because it was there that the Oracles of Delphi proffered advice that like the languages in the story of the Tower of Babel was confusing and unclear. At each of the four corners of the installation a pair of panels opens in a wing-like fashion and reveals a glimpse into a symbolic act of raising souls from the Underworld or Purgatory. A pile of imperfectly filled plastic water bottles form a base. Acrylic forms representing calipers – instruments that test precision and perfection – lift bottles representing souls from the underworld. The calipers bear etched images of autobiographical losses in manners similar to ex votos offered as prayers in Roman Catholic churches world-wide. The “souls” are lifted through a shaft fronted with etchings of the Golden Mean and its related spiral. At a less esoteric level, this installation questions our stewardship of the Earth through contemporary issues of sustainability and recycling. Parallelograms around the base had prints of the Murano landfill with parts of the rainbow removed to emphasize tension between God and Man. The continuously looping videos projected contradictory sights and sounds into the space, for example, very serene videos of jelly fishes taken at the Atlanta Aquarium vs. the actual backgrounds of screeching kids and their parents. Stills from these videos appear in Figures 7, 8 and 9 of the accompanying set of images. At the end of the video, calls for mercy are heard as choirs sing a Miserere composed by the author and recorded at a chapel in a Tuscany.
Design as Art

Babel Amidst An Arising: A Juried Installation Within A Southeastern Art Festival

The base installation occupied 81 square feet (450 with circulation) and 915 cubic feet. It employed floor and ceiling-mounted physical structures, digital images, videos, and sound. It was made of MDF; etched, laser-cut acrylic; ink jet prints on canvas, photo paper, and transparent film; recycled plastic bottles with colored water, fishing line and hooks; stainless steel hardware; and compact fluorescent lights.

Figure 1. This photograph of the space was provided to the artist. However, before the project was installed the space had been occupied by a retail embroidery and screen-printing shop.
Figure 2. The entrance to the shop places the installation in its context.
Figure 3. The text of the story of the Tower of Babel was printed in multiple languages over inverse images of the ruins of Delphi. These panels flanked a view of a tower of recycled water bottles. The text was overlaid on the four videos playing simultaneously around the base of the installation.
Figure 4. Stylized “wings” or “horns” perforated the eight panels flanking the column. Translucent film in them projected deep shades of the colors of the rainbow and their opposites and provided glimpses of calipers lifting partially filled bottles from a figurative purgatory offering renewal.
Figure 5. Panels flanking the column alternated views of the ruins of the Temple of Apollo in Delphi, Greece, with the multilingual presentation of the text of the story of the Tower of Babel from the Old Testament. Parallelograms around the base had prints of the Murano landfill with parts of the rainbow removed to emphasize tension between God and Man. The form to the right presents a view into the underworld. The forms shown in Figure 6 rose behind acrylic panes with etched Golden Mean spirals.
Figure 6. Acrylic forms representing calipers – instruments that test precision and perfection – lift bottles representing souls from the underworld and bear etched images of autobiographical losses in manners similar to *ex votos* offered as prayers in Roman Catholic churches world-wide.
Figure 7. Two representative stills from the video that was presented on four video monitors at the base of installation. In each instance the video portrayed one image and the accompanying audio track broadcast discordant sounds. Videos were recorded on-site in the United States, Europe, Asia, and the Middle East. The stills shown here were from the Atlanta Aquarium and of a fountain between the Blue Mosque and Aya Sofia in Istanbul, Turkey.
Figure 8. The stills shown here were from a bar in New Orleans’ Garden District and along a polluted canal in Venice, Italy. Within the video there were repeated references to Earth, Wind, Air, and Fire. The video played continuously on four monitors. Because they were not synchronized the videos created a cacophony of discordant sounds.
Figure 9. The stills shown here show a homeless man playing *Amazing Grace* in New York and followers of Shintoism burning incense at a shrine in Kyoto, Japan. The video has over a dozen clips ranging from a talking water fountain in New York to a community band playing dirge-like music in Athens, Greece. The video was overlaid with the sounds people reciting parts of the story of the Tower of Babel in a dozen languages. It concluded with the *Miserere* from a unison mass written by the artist.
The Doors of Hound Ears

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This double-sided poster documents fifteen artistic doors at the Hound Ears community, a gated development of primarily second homes, in Blowing Rock, NC. As the researcher was studying the works of an architect and touring the fifty year old community of Hound Ears she noticed that many of the old and new doors were works of art. The doors, to date, had not been documented. In order to archive these works she, along with a resident, proposed “The Doors of Hound Ears” poster, inspired by the famous “Doors of Dublin” and “Doors of Tuscany” posters. The researcher then surveyed the homes in order to identify potential doors. Additionally, a process for nomination by the community members and staff was also implemented. After gaining permission from owners, the researcher coordinated the photography, graphic design and research. The cliché’ saying does not hold true for this project -- a picture is not “worth a thousand words.” The stories of the doors also needed to be included in order to fully understand the photos. Research was completed through surveying the doors, analyzing original architectural drawings, conducting numerous interviews, and acquiring any written documentation available on each door. Eventually, fifteen doors and their individual stories emerged for inclusion in the poster. Documenting these doors preserves their history and architectural significance for the future. The majority of the doors of Hound Ears are original from the 60’s and 70’s era, making this a timely project. The stories of the doors include their current addresses, designers (if known), original owners, and current stewards. The stories also reveal interesting facts about each door which often include their materials, details, original drawings, and any other unique characteristic of the doors. One steward, who is the son of the original owner and is an architect, had no idea his door was a mid-century modern work of art. The researcher discovered the original Claus Moberg architectural drawings for the door and they revealed that the specified door panels were Panelcarve from E.R.A. Industries and were designed by Jerome and Evelyn Ackerman. E.R.A. Industries later became the popular company Forms+Surfaces and the Ackerman’s legacy lives on through that company and the many installations of their work. Interviews were imperative to the completion of the stories and the research was timely as many original residents and interviewees are in their 80’s and 90’s. Two designers emerged as the most frequent door designers: Claus Moberg and Gertrude Kepler. Claus Moberg was an architect who designed the Hound Ears Clubhouse and many residences in Hound Ears. The discovery of his original drawings provided much information about many of the door designs. Gertrude Kepler was the wife of the golf pro. She was an artist and carver who carved numerous doors for Hound Ears residents. Most of her doors feature the natural world such as trees, plants and butterflies. The graphic design of the poster, completed by an undergraduate student working with the researcher, was designed to have an upscale appearance to match the community and highlight the photography of the doors. The poster has now been used to commemorate the community’s 50th Anniversary celebration and is currently on exhibit in an art and history museum.

2014 IDEC South Regional Conference | Vision to Action Tallahassee, Florida
The Doors of Hound Ears
Blowing Rock, North Carolina 1964 - 2014
PaperSPACE

Sarah Zenti, University of Georgia

Submission Category: Design as Idea Project Title: PaperSPACE Installation size: 300 square feet Materials: Paper, twine, adhesive The main objective of this design installation was for the designer, or maker, to directly engage with decoration or ornamentation as the focus of the design process in order to demonstrate its power and capacity as a tool of communication. Furthermore, this investigation theorized that the maker’s physical interaction with the space would reveal the characteristics of the built environment ultimately leading to the appropriate decorative expression (form, size, proportion, placement, color, etc.) as a means of cohesively communicating the space’s history and character. Physical interaction and the act of the making the space were deemed paramount to the successful outcome of this installation because making is a reciprocal action which allows the designer to experience and intimately understand the physical constraints and characteristics of an interior including its size, layout, surfaces, materials, and imperfections. This project was a full-scale interior installation located in an unoccupied and dilapidated space approximately 300 square feet in size. The room was situated on the second level of a two-story commercial retail building in a small town in the Midwest. The space had once served as a retail store dedicated to clothing and accessories for girls. The installation took nine months to complete and each of the forms, or pieces of ornamentation, created during this process were intended to tell the story of the space’s former life. Project constraints for this installation stipulated that all forms of ornamentation had to be conceptualized and constructed on site. All major interior surfaces had to be addressed including ceiling, walls, and floors. Additional consideration was given to the windows and lighting fixtures. All of the ornamentation designed and built had to be a suitable fit for the space which necessitated that each piece had to respond to the physical, material, and environmental conditions of the existing interior environment. It also required that the proportions and volume of each piece had to be an appropriate scale for the space and other created forms. The materials utilized to make each piece consisted of variously sized sheets of white bond paper, black ink, twine, and various adhesives. The materials were selected because of their minimalism and lack of aesthetic and decorative qualities including color, distinguishable patterns, and textures. The unadorned surfaces of the materials were intended to allow the designer and any viewers to assign their own decorative qualities to the materials based on their interpretation and contemplation of the forms presented. As a result of this undertaking, I, the designer, learned about the nuances of design and its process, including proper fit and proportion, fabrication and assembly, detail and craftsmanship, the necessity of curiosity, and also the awareness of failure. I came away from this experience with an understanding of what it means to “know” a space and why that is so important for a designer. Understanding the volume and material attributes of a space will ultimately determine the success (or failure) of its interior design including its intended function, representation of its true character, and purely innovative expression.
Submission Category: Design as Idea
Project Title: PaperSPACE
Installation Size: 300 square feet
Primary Installation Materials: Paper, twine

Image Caption: Detail of final window forms and their connection to the floor.
WallPaper: The final wall forms created in the installation were intentionally made to represent the ruffles of a girl’s dress. This expression reverently acknowledged the former life of the space but also expressed, through volume, the significance of wall surface by commanding the viewer’s eye and attention. Each paper layer also represented the unknown and undocumented layers of the space’s history. The form as a whole was intended to be mesmerizing and whimsical. No surface texture, pattern, or color were intentionally added to the individual pieces of paper in order to allow the viewer (and the maker) to understand and identify what the forms were depicting. This approach also intended to allow viewers to interpret the ornamentation through personal understandings and context thereby allowing each individual the ability to form their own experience. The ripple-like forms, constructed out of a continuous sheet of white bond paper, were layered horizontally across the span of each wall surface. The individual pieces of paper were adhered to the surface with a simple adhesive in an organic and spontaneous manner based on the placement of the previous piece and also the surface quality and characteristics of the wall.
Light-transfer. Window coverings in interior spaces are, among other things, a component of control and exposure. The transparency of the material and type permits or prohibits who sees what and how much. The window treatments created in the installation were a study in the relationship of transparency and opacity. A continuous line of simple twine was woven around each fenestration and its casing to construct the outline of a dense, voluminous fabric. Opaque material was left out of the window forms to allow natural light to enter the space. However, the twine was purposefully drawn out away from the base of the wall on to the floor in front of each window to inhibit viewers from approaching the windows in order to get a clear and unobstructed view to the exterior. An additional attempt at blurring the line-of-sight between the interior and the exterior was done by directly applying a decorative and repetitive pattern to each pane of glass. The pattern was hand-drawn with black ink on stock paper and transferred to the glass with acetone. The intention in this application was to experiment with a pattern reminiscent of a dressing screen.
Detail of final wall form showing volume and layers.
Final detail of lighting form and ceiling panels.

**PaperStitch**: Lighting fixtures come in all forms and sizes and add a distinct decorative quality and character to any space. The fixture itself can also alter the quality or amount of light within a space. Various types of lighting in an interior space serve different purposes; some lighting is meant to illuminate a space while others are intended to set ambiance, or aid with specific tasks. The lighting forms created within the installation intentionally mimicked the ruffle-like form found on the walls as a means to complete the telling of the space’s history by creating and bring to life the character and emotion of the space. Each of the lighting forms were created from a single sheet of white paper, 36" wide by 15" long. Each sheet was hand-stitched down the center and then gathered through the middle to create a bunching effect. Not only did the stitching provide volume to each sheet of paper it also created a backbone or structure for supporting and maintaining each of the final volumes.
Finalized detail of flooring print and pattern.

**Inlaid-Words**: Floors, like wall surfaces, are an expression of decoration and a tool of communication. However, unlike typical wall ornamentation flooring is mainly selected on function and durability versus pure aesthetic expression. And, unlike purely decorative objects, flooring not only imparts information but it also imprints information. Flooring materials wear overtime and tell the story of daily habits, routines, and travel paths. The patterning laid out and adhered to the floor of the installation space was a two-dimensional ornament made up of words taken from the designer’s journal records kept throughout the entire design and installation process. They were arranged in a way that implied a proposed floor plan of individual spaces and physical separations. When pieced together the sheets of paper revealed the story of the maker’s process including research, ideas, and reflections. When spilt apart, however, the sections became a patterning of letters, spaces, and punctuation marks which provided a glimpse at personal thoughts, feelings, and ideas. The intention in this expression was to allow viewers the opportunity to connect with and contemplate the ornament, its intention, and its meaning.
Final space facing away from the windows. (Back of installation)
Final lighting form lit against ceiling panels.

**PaperTop**: The existing ceiling found in the installation space was a standard suspended ceiling system with no overwhelming unique qualities. The final decorative treatment of the ceiling plane in the installation constituted inserting a replicated antique map onto each ceiling tile. The map as a printed surface can function as a communicative tool that at its most basic level provides a broad, yet concise understanding of a surface. In design we utilize maps, or floor plans, on a daily basis to attempt to explain and communicate to others the layout of a space. However, a floor plan like a map can only explain a fraction of a design because it lacks the ability to explain a three-dimensional experience. In order to understand any space or the impact of surface ornament you must be willing to submit yourself to the experience as a whole, not just parts of it. A map is not only a wayfinding tool but also a tool with which to record visits, landmarks, or memories. In context to the installation the map also became a mirrored likeness of the ornament laid out on the floor.
Antique dress form found on-site and presented for public viewing at the completion of the installation.
POSTER PRESENTATIONS
Sustainability and Healthcare: Present and Future

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In the recent years, there has been a great deal amount of research produced in the areas of healthcare and Evidence-based Design, as well as sustainability. However, to what extent these two areas have been integrated is unclear. Evidence-based Design or EBD is defined as “the process of basing decisions about the built environment on credible research to achieve the best possible outcomes” (Center for Health Design, 2011; page 4). The Center for Health Design (CHD), established in 1993, is known for the development of evaluation criteria to recognize EBD specialization, which is named Evidence-Based Design Accreditation and Certification (EDAC), in 2009. The CHD (2011) identifies seven trends and challenges facing healthcare: public focus on quality and safety, reimbursement challenges, aging population and caregiver shortages, health information technology, genomics and technology, emergency room saturation and disaster preparation, and sustainable healthcare (Center for Health Design, 2011; page 6). The emphasis of CHD on sustainable healthcare calls for more research collaboration on integration of healthcare and sustainability. The proposed IDEC poster will focus on the topic of sustainable healthcare. While the EDAC guideline recognizes the importance of sustainability within the healthcare model, it is unknown how well the growing body of healthcare literature is responding to this call. Also, the research on sustainability is expanding; however, there is still much to be done to merge sustainability and healthcare. For example, sustainability has been related to advancing the triple bottom line with economic, social, and environmental payoffs (Cole, 2004; Kibert, 2007). While these bottom lines are known in relation to sustainability, the EBD research also relates to such bottom lines in different levels. Therefore, the overlapping areas of sustainability and EBD research have much potential for research studies. The purpose of this study is to unveil the quantity and quality of environmental research dealing with sustainability within health areas. This study will review central themes in existing literature published between 2004 and 2014 in Health Environments Research and Design Journal (HERD) and Journal of Interior Design. The findings of the content analysis will be summarized, and presented graphically using diagrams. To advance the existing knowledge base, we will be proposing specific research directives which will serve to inspire, guide and further integrate sustainable innovation within the healthcare context.

REFERENCES


Designing of Information Grounds in a College Town as a Medium for Facilitating Communication and Social Interaction

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Designing of information grounds in a college town as a medium for facilitating communication and social interaction Issue Information grounds form continuously in prosaic, daily environments. An information ground can be defined as an “environment temporarily created when people come together for a singular purpose but from whose behavior emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information,” (Pettigrew, 1999). In the modern society, Internet allows creating information grounds easily and people can use them. However the importance of the knowledge of the particular circumstances of time and place was minimized. Besides Fisher, Landry and Naumer concluded that physical, place-related factors play “an extremely important role in the effectiveness of an information ground,” suggesting that place-related factors may be the single greatest influence on member loyalty and satisfaction, surpassing even the quality of the information acquired as a central evaluation point (Fisher, 2006). Thus it should be considered that how place-related information grounds will be designed and which factors of interior aspects will be applied. Purpose statement The purpose of this study is to propose the design of information grounds in the college town for facilitating communication and social interaction among students. In this particular study, a college town was chosen because of the increasing number of information ground in college town. Besides students suggested that an information ground plays an intrinsic role in facilitating communication with people and social interaction. This social interaction is very critical to enhance ones’ understanding of the area and facilitate the generation of approaches that are feasible and unique in education (Jill, 2006). This study constructs a theoretical framework, which is a design guideline; how to create place-related information grounds for enhancing communication and social interaction with interiors based on human emotions and behaviors toward physical settings so that not only can designers and students efficiently create it, but they can also suggest new insights in research fields to scholars in interior design research. Method This model, the adaptive theoretical framework, has been developed based on four major areas (social factors of third place, place attachment, M-R model and place-related information ground factors). Especially, social and physical factors for place-related information ground, which are non-purposive and simultaneous focal activity, conviviality, comfort levels, location and permanence, privacy and ambient noise, will be mainly analyzed and utilized for the framework. This study applies the findings in place-related information grounds design processes and proposes design solutions for creating communication and social interaction through analysis of an existing space located in a campus town. Implication Through this study, the importance of place-related information grounds is presented. Also it is beneficial to contribute to education by fulfilling needs of information grounds in a college town. The theoretical framework could be adapted to other setting sin the design field. Thus, the rationale of making an informational ground for communication and social interaction is a significant aspect of design and the influences in interior space are addressed.

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Empowering Our Elders: Exploring the Role of the Skilled Nursing Built Environment

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In the United States, the number of people in the over 65 year category will rise to 80 million, or 20% of the total population by 2040 (Palmore, 2009). This older group traditionally requires more services ranging from healthcare to housing than younger generations. Skilled nursing facilities provide long-term care for elders who need around the clock nursing support, and are likewise increasing in number to accommodate this change. One of the challenges facing retirement communities is respecting residents’ rights of autonomy and control while still following the many required laws and regulations placed on skilled nursing establishments (Frank, 2002). Administrators often desire to create a home-like environment, but the setting may still interfere with residents’ ability to make personal choices, which is an essential component associated with home (Frank, 2002). For example, self-determination in the timing and degree of social engagement are highly valued by residents (McKee, Houston, & Barnes, 2002). This poster will discuss the review of literature and initial data findings for a study that explores the built environment’s role in perceived empowerment by skilled nursing residents. Literature suggests that a sense of control and autonomy is a factor that can determine if an older resident is satisfied with their living conditions which, in turn may facilitate empowerment and overall well-being. This concept is the foundation for the study’s primary research question: What role do empowering elements in the built environment play in supporting quality of life for skilled nursing residents? The Person-Environment Fit Theory by Kahana, Lovegreen, Kahana, & Kahana shaped the study’s approach (2003), which evaluates the interaction of personal preferences and environmental characteristics along four physical and two social domains. The study’s two-phase methodology first engages in interviews with skilled nursing residents about their experiences in the facility and the spaces in which these empowerment experiences occur. Based on the residents’ responses regarding the areas they enjoyed the most, the second phase engages in observations of those areas to better understand how residents use them. Preliminary findings from phase one will be shared with conference attendees. The data collected in both phases will be used to inform design guidelines for skilled nursing facilities that identify and recommend empowering elements in the built environment. Some likely examples include areas where residents can choose their seats, then interact with others easily, as well as areas of refuge when residents need privacy. The intent is that these guidelines will benefit skilled nursing facility administrators, staff, and other design professionals who seek to empower and improve quality of life for elders.

REFERENCES


Workplace Design: Facilitating Collaborative and Individual Work Environments

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Introduction Given the substantial amount of time our society spends in the workplace, it is important to continue to improve the work experience through well-designed office interiors. Office design has a strong and extensive history that is ever-changing and contingent upon attitudes and events in society (Maitland & Thompson, 2011). In addition to its history, comprehending how the workplace functions on the organizational level, as well as the individual level, could aid the process of designing interior workplace environments that foster the success of organizations and the people within them. This case study focuses on the design features that promote both collaboration and opportunities for individual work in a creative work environment.

Background Historically, trends in office design have often been focused around either private or open office plans, with recent trends emphasizing the more open plans. These open plans provide opportunities for collaboration along with increased flexibility and decreased cost (Duffy, 2007; Saval, 2014). However, negative features of these plans often include distractions and lack of privacy, which can disrupt more focused types of work. Recent research has suggested that the design of the workplace should support and facilitate not just collaboration but individual work as well (Gensler, 2013; Hua, Loftness, Heerwagen, & Powell, 2011).

Methodology An instrumental case study was conducted in a creative work environment, specifically an interior design firm, using a mixed-methodology to understand how collaborative and individual work might be facilitated. Specific research techniques included visual documentation, behavioral mapping, and interviews. The workplace was visually documented through photos that targeted various spatial arrangements and architectural features. Additionally, observations and behavioral mapping conducted over the period of one week allowed the recording of behaviors of workers and highlighted activities in which collaborative and individual activities took place. Notations were recorded directly on the floor plan of the space and field notes were taken to record detailed observations that could not be adequately recorded elsewhere. To better understand the meaning behind the behaviors that occurred in the space, the researcher conducted interviews with employees of the firm. These interviews further revealed the nuances of spaces that supported collaborative and individual activities. Findings The analysis of the observations recorded through behavioral mapping, in conjunction with the visual documentation, revealed various trends and noteworthy behaviors of the employees studied, as well as which aspects of the built environment were utilized for both individual and collaborative work. The subsequent interviews explained why these behaviors were linked to certain features of the built environment and what the perceptions of the employees were about their workplace.

Conclusion The conclusions from this instrumental case study uncovered a link between the built environment, how employees work successfully both alone and in groups, and employees’ perceptions of the workplace environment. This newfound information may inform design that facilitates collaborative and individual work for the employees within it.

REFERENCES


How Can I Change The World?: Exploring High Impact Creative Learning Experiences Across Majors with Implications for Interior Design

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Numerous research studies have examined the effectiveness of creativity training programs in higher education (Scott, Leritz, & Mumford, 2004; West, Tateishi, Wright, & Fonoimana, 2012). Researchers agree that well-designed training techniques can improve creative thinking in college students. However, the process of creative problem-solving often seems to be ignored at the expense of knowledge acquisition and application. Even though developing new and useful ideas are essential for advancing disciplines, investment in creativity training remains an exception rather than the rule in higher education (Lau, Ng, & Lee, 2009). Moreover, even within design and arts curriculum, the development of creative thinking often is not explicitly taught or cultivated. Exploring creativity training techniques across disciplines could prove to be effective in opening up new possibilities of thinking, to non-design majors, but also has interesting implications for interior design education. Therefore, the purpose of this study is to explore the efficacy of creativity training techniques and to compare the impact of these techniques by major and background demographics with recommendations for interior design pedagogy. At the [university name, and program name withheld for blind review process] an alternative school year program was recently launched with the mission of cultivating student idea leaders and entrepreneurs across disciplines. The faculty member and co-authors of this abstract contributed to the development, coordination and student learning assessment of this introductory course on creativity and innovation. This course enrolled students from over thirty majors who were introduced to the creative person, process, product, and press through theory, and hands-on learning about the creative individuals and organizations. Further, a life-span perspective was emphasized throughout the course using cases of innovators from art, science, design and/or business contexts. This poster will overview the most valuable learning outcomes representing the students’ perspective drawn from the fourteen sections of the course (N = 349). To generate this data, the students each created a portfolio at the end of the course called the "The Lessons Learned Portfolio" which highlighted the most meaningful and significant learning experiences about creativity. Central themes from the portfolios are being assessed by an independent panel of three raters, and will be presented graphically in the IDEC poster session. Further, the overview of the course, and description of the students also will involve a comparison across majors and gender. Implications for creative training will be presented with special emphasis on experiences that would be particularly effective in interior design. The findings will begin to answer the question: which creativity training techniques appear to be the most significant to college students across majors? The evidence will be helpful for understanding the efficacy of the class and the way the curriculum can be tailored to specific majors, including interior design, that place a particularly high premium on creative thinking and innovation.

REFERENCES


Domestic Violence Shelters: Exploring the Interactions of Design, Rules, and Resident Empowerment

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The National Intimate Partner and Sexual Violence Survey has reported that approximately one in four women in the United States has experienced physical violence by an intimate partner during her lifetime, equaling approximately twenty-nine million women (Black, et al., 2011). Victims of domestic violence often are isolated and controlled by their partners and made to feel helpless and imprisoned. Domestic violence shelters can provide a safe place for women to heal and begin again. Many domestic violence shelters have the goal of empowering their residents, so that residents can begin to make positive life changes (Gengler, 2012). One researcher has identified three themes that characterize women’s empowerment: • the development of a strong sense of self; • the ability to base decisions on that sense of self; and, • a connection within a larger community (Sheilds, 1995). Effective shelter empowerment programs address empowerment by individually tailoring programs and policies to residents’ needs and circumstances (Kasturirangan, 2008). However, some researchers note that many “empowering” domestic violence shelter programs have an overabundance of rules and restrictions that residents may view as controlling, patronizing, or similar to their previous abusive environments, and thus can counter the shelters’ efforts in building empowerment (Gengler, 2012). Similarly, rules that need to be constantly enforced limit shelter staff’s time for counseling and advocacy (Tautfest, n.d.). This interior environment study is driven by the notion held by some researchers that rules and restrictions are often created in response to the built environment, prompted in part by the many challenges of housing multiple people in one location (Tautfest, n.d.). It is therefore possible that the design of shelter built environments may create unnecessary rules that in turn can negatively affect empowerment. This poster will present the authors’ preliminary findings on the possible connection between a shelter’s built environment, its rules and restrictions, and the state of its residents’ empowerment. The study’s qualitative methodology engages shelter staff members in semi-structured interviews at a domestic violence shelter, reasoning that staff members’ knowledge of both residents’ state of mind and the creation of shelter rules will be beneficial. The staff members will be asked to discuss the current shelter’s rules and restrictions and shelter architectural design in relation to resident empowerment. Sheilds’ themes of empowerment will be used as an underlying framework to both assess resident empowerment processes and evaluate the role the shelter built environment may play in supporting or suppressing rules and policies. A predicted finding of the study is that the study’s target shelter indeed maintains certain rules necessary only because of its less than optimal architectural design. This finding would conversely support the notion that well-designed shelters need fewer rules, which in turn, may lessen disincentives for resident empowerment and create a more positive environment for both residents and staff. If this is so, then based on the findings of this and similar studies, future domestic violence shelters could be designed so they become better advocates for resident healing.

REFERENCES


Millennials & Home: Understanding the Needs of the Millennial Generation in their Housing Environment

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With the history and emergence of new generations, changes and diversity define each cohort. Generations are people moving through time; every generation is composed of, “people possessing a distinctive sense of self” (Strauss & Howe, 1991, p.32). William Strauss and Neil Howe, two specialists on generational studies, believe that each generation is shaped by its “age location”, meaning that people are shaped by important events that occur during their lifetime (1991). Because of the evolution of people throughout generations, it is apparent that life choices are made differently. Education, marriage, childbearing, careers, and housing are all aspects of life that every generation has adapted. The focal cohort in this study is the Millennial generation, the group of people born between the years of 1982 and 1999. Research shows that many Millennials are delaying marriage and having children, which significantly impacts how we will design spaces for this generation’s needs based on their current point in life (Strauss & Howe, 1991). Their social factors influence their location, housing choices, and their personal meaning of home. It is important to look at the American life cycle as it has actually been lived by each generation. Because Millennials are more involved with keeping up with trends, and incorporating them into their lifestyle, design needs are much different than in the past. Millennials desire a sense of community and connection to their surroundings (PRC, 2010). This generation wants walkability, convenience, housing variety, and affordability within their housing environment, and a mixed-use development is an applicable solution that successfully accommodates these desires (RCLCO, 2013). Currently there is a lack of housing opportunity that will accommodate Millennials’s needs at their current point in life (Jones, 1995). This lack of available housing makes building an emotional connection to their homes and surrounding community extremely difficult for Millennials (Jones, 1995). In order to accommodate this desire for emotional connection to their surroundings, it is essential to understand the Millennials' needs in relation to their meaning of home. The Millennial generation as a whole, connect their personal and social identity to their physical surroundings, therefore, these young adults desire to establish a personal identity through “sense of place” in their home and a social identity through “sense of community” in their living environment (Jones, 1995). Determining what needs Millennials find important within their home environment allows for the opportunity to enhance their emotional connections with their surroundings. This poster will illustrate preliminary findings from the research study, and will provide a proposed design solution for a mixed-use housing environment for Millennials. A group of Millennials will be surveyed to determine how they accommodate their needs, and informal interviews will follow to create discussion and gain further insight on how accommodating Millennial’s needs enhances these desired meaningful connections. The resulting data will lead to a greater understanding of the meaningful relationships that Millennial’s desire to create with their surroundings, and how to better accommodate their needs through design.

REFERENCES


Architectural Survey and Analysis of Day Care Facilities for Persons with Dementia

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The need for designers who are aware of the environmental requirements of persons with dementia (PwD) is growing due to the increasing number of persons who have Alzheimer’s disease and other forms of dementia (The Alzheimer’s Association, 2014). This growth is necessitating the construction of more of the two types of facilities that care specifically for PwD, residential memory care and adult day care. Family members of PwD typically wish to delay placing their loved ones in institutional residential care as long as possible, and are supported in this endeavor by adult day care facilities (Brawley, 2006). Day care provides family members with a respite from caregiving and allows them to continue working, while giving PwD a supportive environment and appropriate stimulation. In order for day care facilities to support PwD appropriately, the built environment has to make accommodations for their declining physical and cognitive abilities (Brawley, 2006). A survey of ten adult day care facilities was conducted to gather information that would provide direction for designers who create these therapeutic environments. The survey included a visual assessment of architectural features and furnishings, photographic documentation of the buildings, and interviews with staff members who shared their perceptions of the positive or negative effects of specific architectural features and furnishings in relation to how they function for the participants, their family members, and staff.

REFERENCES
