



IDEC South Regional Conference
October 20-21, 2023
Atlanta, GA
Host: SCAD Atlanta

Posters

Scholarship of Design Research

- *Global Perceptions of Space: The interior designer's role*

Erica Bartels: Georgia Southern University

Ansley Chloe Elliott: Georgia Southern University

Abstract: Interior designers need to show and share awareness of cultural inclusivity in design solutions to create a positive experience for all end users. In order to do this, interior designers employ an understanding of how people from various geographical locations perceive space and, as a result, behave and connect in public environments. This study explored existing literature on human factors in design, such as proxemics, territoriality, anthropometrics, cultural dimensions in business practices, and inclusivity in design. The research methodology included a Qualtrics survey on cultural background and demographic data of participants followed by participant preference of three-dimensional renderings depicting the placement of silhouette figures in a public restaurant and a workplace. Last, sliding scale questions on international business cultural dimensions provided data to assist the visual selections. Results indicated that social distance (using Hall's indicators of proxemics) between another person was preferred at both the workplace and cafe. Participants also showed preference for personal and intimate distances between a colleague/friend vs. a supervisor. The concepts of business cultural dimensions (such as non-verbal use of personal space) showed slight variations among the culture groups (A, B, C, D) in the study sample, suggesting that further research into cultural inclusivity in proxemics is important. The aim of the project was to assist interior designers in space planning for inclusion in public spaces in order to connect the dots of non-verbal cultural dimensions and interior design practice.

- *Exploring Barriers to Creative Scholarship Output in Interior Design Education*

Anna Ruth Gatlin: Auburn University

Abstract: For many interior design educators, the term “publish or perish” is reality. Regardless of teaching excellence, many interior design educators must meet scholarship quotas in order to achieve tenure at their institution (Diamond, 2002). Few interior design educators rely solely on traditional scholarship (e.g. peer-reviewed journal articles) as their sole source of scholarly output (Guerin & Birdsong, 1995; Pable, 2009); many creative fields rely heavily on creative scholarship as important portions of the tenure dossier. Many interior design programs are housed in units that were formerly home economics programs that evolved into individual degree programs (e.g. interior design, culinary arts, apparel design/production); therefore academics voting on tenure and promotion (P&T), even within the same department, may be outside of disciplines that routinely produce creative scholarship. The world of academia can be slow to change; stepping beyond the bounds of traditional scholarship can be perceived as perilous (Diamond, 2002). Until relatively recently, traditional scholarship has been the primary path to P&T at institutions with a research requirement for tenure (Miller, 2022), and creative scholarship can be perceived as a risk for some interior design educators even if their institution acknowledges that creative

scholarship is commensurate to article publication. Creative work is at the center of the interior design profession and is often an appropriate way for interior design educators to generate research. The purpose of the poster is to explore possible barriers to both generation and submittal of scholarly works. A pilot study exploring current perceptions, generation, and submittal of creative scholarship was conducted at a national conference where creative scholarship was exhibited. The sample size is n=39; data from the survey will be included on the poster showing the disparity between the number of creative works respondents create in an academic year (mean = 6.5/respondent) vs. the number of creative works submitted in an academic year (mean = 2.7/respondent). The survey measure used in the pilot study was adapted from Adams (2004). The poster will visually convey the pilot study data and provide analysis and discussion of results. Potential barriers to generating and submitting creative scholarship will be suggested, compared, and contrasted. The poster will also show a range of creative works generated by the author, visually showing how complex creative scholarship can be, spanning constructed interiors, architectural renderings, and textile/fiber arts—even when it's academic achievements of a single individual. The lack of a unified deliverable for creative scholarship is inherent, yet could be perceived as a barrier. While this is only a part of larger study exploring creative scholarship in the 21st century, understanding barriers to juried creative scholarship is an integral part of advancing the academy and supporting interior design educators in their path to P&T. This poster engages viewers to reflect on their own scholarly output by asking them to respond (via provided Sharpie and tally marks) how many scholarly creative works they generate and submit in a year, allowing conference attendees to see in real-time any disparities or trends emerging from their peers.

- *Early Grade School Classroom Design and The Prevention of Alcohol Use Disorder (AUD)*
Campbell Shepherdson: Savannah College of Art and Design

Abstract: Alcohol Use Disorder (AUD) is a chronic illness that affects not only the addict, but also their loved ones, particularly children with a family history of AUD who are at higher risk for negative outcomes (Slaughter, 2023). Environmental factors, such as adolescent alcohol use, unmanaged childhood ADHD, stress and anxiety from adverse childhood experiences, and impulsive behavior, may contribute to the development of AUD (Bernhardt et al., 2017; Norton et al., 2023). Poor classroom performance during childhood is linked to increased risky behavior later in life, and current AUD prevention programs for adolescents may overlook the significance of adverse childhood experiences as a predictor for earlier age of drinking onset (Ragnarsdottir et al., 2017; Substance Abuse and Mental Health Services Administration [SAMHSA], 2018). This study aims to evaluate the potential effect of the built environment on children's AUD risk in the classroom. By examining the relationship between early life factors contributing to unhealthy youth consumption patterns and subsequent classroom experiences in childhood, the study seeks to provide criteria for future AUD interventions to effectively be implemented in a child's learning environment. Using a theoretical approach and implications for design from a review of existing literature, four research methods were conducted to evaluate the interior design of grade school classrooms and its psychological and physical impact on at-risk children. The research methods included interviews with a child psychiatrist, child psychologist, and retired lower school teacher to evaluate tactile stimulation, proxemics, and visual hierarchy; an interview with a young adult diagnosed with ADHD in childhood to evaluate classroom characteristics in relation to anxiety, stress, discomfort, and pleasure; a survey of 162 participants to assess interior materials and settings as they relate to calm feelings and general preference with a focus on texture, art, and nature; and a cross-comparative analysis of existing grade school classrooms with fixed research lenses related to AUD-risk and protection. The key findings suggest that a novel grade school classroom design may serve as a protective environment, reducing children's risk for AUD by enhancing their exposure to nature, social connections, opportunities for self-regulation, self-efficacy, and problem-solving skills through visually exciting, tactile stimulating, and aesthetically engaging signage and wall coverings. These findings suggest the potential effectiveness of utilizing interior design as a novel form of AUD intervention, and further investigation is warranted.

- *Exploring Academic Social Space Design for College Students Who Have Experienced Trauma*
Anna Ellis: Florida State University

Abstract: Trauma is a widespread issue that impedes the lives of many individuals. The exposure that humans have to trauma is a severe public health concern due to its pervasive nature (Lippard, A. M., 2022). Trauma can be minor, short-lived, or long-term, and can have any combination of physical, emotional, psychological, or cognitive effects on individuals (Bounds, D., Leland, N., & Amar, A. F., 2021). Generation Z is facing higher rates of anxiety, depression, and distress than any other generation resulting in an increased demand for mental health services from young people, with the largest increase in ages 13–17 and 18–25 (Coe, Erica, et al., 2022) (American Psychological Association, 2022). In addition to affecting one’s life experiences, trauma influences how one experiences the environment (SAMHSA, 2014). Within the field of interior design, design decisions can impact users’ perceptions and feelings about built environments and affect their well-being. Because of the pervasive effects that trauma can have on people, users who have experienced trauma do not always feel inclined to engage in public spaces. Trauma-informed design approaches have the potential to help designers to create spaces that address the unique needs of students that have experienced trauma, and by doing so may reduce stress, having a positive impact on users by enhancing their well-being. Research has been conducted on the impact of trauma-informed design in the design of homeless shelters and supportive housing, but there is a gap in research that provides an opportunity for further investigation on how a trauma-informed design framework can be applied to other building typologies, such as academic environments. University administrations, architects, and designers seek to design academic spaces that would better meet student needs; however, existing facilities on university campuses may not be supportive of the needs of students that have experienced trauma. (American Psychological Association, 2022) (Coe, Erica, et al., 2022). The purpose of this research is to investigate the spatial and design needs of college students who have experienced trauma that may benefit from using academic social spaces. This study will use a mixed methods approach to answer the primary research question, “What architectural qualities influence the academic social space preferences of college students who have experienced trauma?” Surveys regarding space preferences will be distributed online to currently enrolled college students that have experienced trauma. Follow-up interviews will take place to gain a deeper understanding of participants’ choices. Participants will take into consideration the following qualities based on the researcher’s informed expertise and literature review: scale and proportion; geometry, curvilinearity, or rectilinearity; texture and pattern; color; quality of lighting; qualities affect their emotional well-being. This study is intended to assist designers to make meaningful design decisions that will have a positive impact on college students who have experienced trauma. Designers will be encouraged to create spaces that promote comfort, connection, community, and choice by addressing the human needs principles.

Scholarship of Teaching and Learning

- *Enhancing Experiential Learning Through Collaborative Studio*
Kyoungim Park: Valdosta State University
Selena Nawrocki: Valdosta State University

Abstract: Higher Education and CIDA are requiring more engagement of experiential learning activities through interior design curriculums. As design educators, it has been challenged to enhance student learning with demonstration value of the interior design education and provide students a comprehensive experiential learning within application of the CIDA professional standards. So, how might the educator find a solution for these complicated as well as reflective expectations? Collaboration is a key factor for providing real-world experiences and enhancing students’ experiential learning activities. Two instructors embraced projects within multi-

disciplinary collaboration. They developed cultivated experiential learning activities with building renovation projects for the music department of a university and a regional bowling center. Both projects were completed by students in senior level studios. To accomplish the experiential learning nature, the instructors adopted David Kolb's Theory of Experiential Learning and Bybee's the 5E instructional model. The experiential learning is described as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984). In addition to the theory of experiential learning, Bybee's the 5E instructional model learning cycle served as framework for designing the project (Bybee, R., Taylor, J. et al., 2006). The project included four stage phases: 1) Engagement, 2) Exploration, 3) Explanation, 4) Elaboration, and 5) Evaluation. First phase, instructors have introduced each project to enhance experiential learning activities. Students promoted curiosity of the project and developed questions related to the project. To generate engagement of experiential learning, they had a field trip to the project site and Q&A session with architects and interior designers. In the exploration phase, students were encouraged to work together and collaborate with multiple disciplines such as music department faculty, music department students, clients, architects, etc. through meetings and interview/survey. The instructors elicited students to identify problems or issues related to the project. During explanation phase, the students were guided to understand concepts of acoustic control, biophilic design and well-being for occupants through lecture before conducting their own research. This phase helps students assimilate information and gain comprehensive knowledge of the research topics. After that, students developed concept questionnaires, schematics design for the project. Group discussions used to solve problems and find solutions. It is intended to fostering group discussions through entire developing design stages. Next phase, students implemented a variety of points of view from multiple disciplines to their projects as they developed design solutions. They expanded on their knowledge to gain and apply collaborative and synthesized ideas to design solutions. The final phase, students produced final presentation boards. After the final presentation, both students and instructors had feedback from clients. They evaluated and shared how to effectively collaborate. After the projects culminated, assessment data was collected to measure the effectiveness of experiential learning. The assessment focused on students' performance associated with the outcomes of experiential learning and the CIDA professional standards. The assessment results assisted the instructors with effectively revising the course contents. The authors will share pedagogy, objectives, process, activities, methodology, collected data, and students' learning outcomes as well as project challenges.

Creative Scholarship – Design as Idea

- *Activating Public Life Through Street Furniture*
Allie Miller: University of Oregon

Abstract: This research focuses on sustainable approaches to designing street furniture, specifically seating, that can activate public life in neglected urban settings. Using theories of urbanism, materiality, and inclusivity as a foundation to outdoor furniture design, the research provides a holistic look at what creates positive environments in public spaces. This research is an extension of work done for a comprehensive interior architecture studio project which designs a food hub in Nashville TN. Using a selected area of downtown Nashville as a case study, the research highlights the need for seating and shade in the busiest pedestrian zone, Lower Broadway and Second Avenue. The project proposes seating on the existing tree lined sidewalk located near the riverfront as a low cost/high impact entry point in activating public life at the riverfront and on a mostly abandoned First Avenue. The goal of this research is to propose a pedestrian friendly place of refuge away from the noise of Lower Broadway and Second Avenue

that give users access to seating and shade. This project aims to propose a first step that could lead to the activation of the riverfront zone to revitalize the historic area of the city. Through street furniture inventories, secondary research, and precedent studies, the research narrows in on placement, materiality, and inclusive design principles as the main sustainable approaches to creating successful street seating design. The placement of street furniture is critical in promoting use/activation from the public, as much as the design of the street furniture itself. Creating pedestrian friendly zones can be a sustainable way to activate public life when considering the location and implications of adjacent areas such as local business and green spaces. The study also explores materiality as a sustainable approach to design. Materials should be suitable for the local region and weather conditions. Considering the longevity of materials to withstand both the climate and wear and tear from extended use, multiple material options are present. Finally, inclusive design principles ensure the sustainability of the design by supporting use for multiple user groups throughout its life. The research points to universal design principles, ergonomics, anti-hostile design, and transpecies design as the foundation to creating street furniture that can be enjoyed by all and promote the flourishing of all species. The research points to street seating furniture as a sustainable way to activate public life in urban communities through thoughtful placement, durable materials, and inclusive design techniques.

Presentations

Scholarship of Design Research

- *Impact of residence hall design on mental health and wellbeing of students in India*

Riya Garg: Savannah College of Art and Design

Ricardo B. Navarro: Savannah College of Art and Design

Abstract: Over 5 million students move into residence halls each year in India with more than 60 percent reporting mental health issues (Rao, 2019). Despite the rising number of issues among students and these students residing in residence halls, the built environment of residence halls lack adequate support for student's mental health and well-being. Mental health and well-being are key driving factors in the emotional health of a student, connected and co-dependent on one another. Due to the limited resources, individuals prioritize physical health issues over mental issues because the latter's effects are less obvious and not visible. Numerous causes, like social isolation, and personal problems, might impair one's mental health and well-being. Due to lack of linkages between them, the influence of the built environment on one's well-being is overlooked. Well-designed dormitories have the ability to enhance the student experience by making it more successful, memorable, meaningful, and rewarding. These various factors point towards a connection between the residence halls' built environment and mental well-being. In the Indian society, half of all mental health issues in individuals are presented by the time one is 14 years old, and one-third by the age of 25 (Chakrabarty, 2022), however, individuals with mental health and well-being issues frequently go to sacred sites and temples rather than doctors. The main problem is the stigma associated with mental health, particularly among students, as India continues to lag behind other countries in terms of how mental health is perceived and how it is improved. The existing literature suggests that students go through different issues at this age, including parental pressure, peer pressure, study anxiety, bullying, gender dysphoria, drug addiction, and dietary changes (Chakrabarty, 2022). Students' lives and needs have evolved over time, yet the built environment elements, as well as human factors like light, color, ventilation as well as materials used in a space that cause stress among students, remain the same, with only surface-level interventions like helplines from the government and the institution. A mixed

methodology of research methods were employed to understand all facets of the issue. Expert interviews with psychologists and counselors were done to understand the psychological aspect, end-user surveys helped identify how a student perceived their residence halls as well as existing residence hall case studies helped in identifying the existing design problems. Triangulation of all data shows that there are common underlying issues highlighted by the students, the experts as well as the institutions. These key findings are developed into a framework of implications for design that can potentially enhance mental health and well-being of students in residence halls. It includes private spaces, a perceived sense of home, social connections, a sense of openness, and mental health and well-being support. Existing literature as well as research methods have shown that the built environment of a residence hall has a direct impact on mental health and well-being of the student. The developed framework of design drivers relating to the built environment through implications can help designers create spaces that affect residents' mental health and well-being in Indian university residence halls.

- *Creating a better living environment for children with ASD*
Georges Fares: Auburn University

Abstract: The underrepresentation of individuals with Autism Spectrum Disorder (ASD) in the planning and design of interior and architectural spaces is a significant issue, despite the growing population of those with ASD (CDC, 2021). The needs of individuals with ASD are often excluded from building codes, design guidelines, and regulations, leading to a lack of appropriate design solutions for their unique needs (Khare, and Mullick, 2009). This poses a serious problem, as individuals with ASD are more sensitive to their physical surroundings than the average person, and negative behavior is a common response when they are unable to understand or adapt to their environment (Arnaiz, et al., 2011). To address the unique needs of individuals with ASD, the presentation will showcase a prototype of a modular and adaptive system (MAS). This system is versatile enough to accommodate different sensory outcomes, with a focus on adaptability to different functions and activities, by being comprised of modular pieces that can adapt to multiple surfaces and allow multiple functions to accommodate safety, different symptoms, sensitivities, and levels of functioning. The author will discuss the challenges of designing spaces for individuals with ASD, including their diverse needs, symptoms, and requirements since each diagnosed case of ASD is unique, and therefore, there is no one-size-fits-all solution. The presentation will also highlight several theories used to address these challenges, including the Therapeutic Environment Theory, Privacy and Control Theory, and Environmental Preference Theory. The Therapeutic Environment includes a conceptual framework that focuses on the relationship between the nature and needs of individuals and their cultural relationships with the social organizational context. The concept, "Therapeutic Goals: Focus on continuing of the self," includes 8 goals such as maximizing safety and security, awareness and orientation, functional abilities, social context, privacy, personal control, regulation of stimulation, and continuity of self (Nasar, 2007) (Cohen and Weisman, 1995). Privacy and Control Theory emphasizes the importance of choice and control for people with ASD, as they often feel overwhelmed and anxious in environments where they have little control. Environmental Preference Theory suggests that people prefer engaging and involving scenes settings rather than simple and boring ones (Kaplan, et al., 1989). The prototype is based on the principles of universal design, which emphasizes creating products and environments that are usable by all people, regardless of their abilities or disabilities (Burgstahler, et al. 2015). The MAS is designed to be flexible and adaptable, allowing for customization to meet the unique needs of each individual with ASD. The presentation will describe the methodology used in designing and fabricating the prototype, including the process of achieving the final design, testing, materials, and other relevant details. The conclusions drawn from the investigation

emphasize the need for adaptable design solutions that can address the different needs of individuals with ASD. The aim of this presentation is to demonstrate how architecture and interior spaces can be planned and/or modified to positively influence the behaviors of individuals with ASD. Man-made spaces can become havens and safety locations for individuals with ASD and assist in preparing them for the challenges and problems that might arise in their daily lives. With the right approach, we can create a built environment that positively impacts the behavior and well-being of individuals with ASD.

- *Adapt the Educational Environment for Autistic Children's Social and Emotional Needs.*

Joyce Serrano: Savannah College of Art and Design

Ricardo B. Navarro: Savannah College of Art and Design

Abstract: In the last decades, the global prevalence of autism raised drastically, increasing the awareness of how spaces support users. The research focused on how interior design can enhance the educational experience of autistic children by supporting behavioral, social, and emotional challenges within the environment. Ecuador is a country in South America, in which the first guideline approaching autism was released in 2017. The research proposes interventions to support autistic children assisting public schools in Ecuador. The built environment relates directly to children's educational experiences. As Maxwell (2007) states, children must be able to 'interact competently with the environment' to have a fulfilling learning opportunity. Successful educational environments encourage children to explore and experiment independently. Autistic children struggle with social communication and interactions, and repetitive patterns in behavior, interests, and activities (Carpenter, 2013). Autistic children perceive information and develop skills at a different pace than typically developed students. The educational environment can assist autistic children to develop social and emotional skills. Emotional issues are not considered a core feature of autism spectrum disorder (ASD). However, in the last decade, studies point out that autistic children have a lower ability to control their emotional regulation. Samson, et al. (2014) reached this conclusion and identified that ASD patients with low rates also showed restrictive and repetitive behaviors. Approaching the emotional regulations of ASD children can help to minimize the core symptoms. Designing educational facilities targeting emotional development is a new approach to supporting ASD children within the environment. Three methods were used to gather information. The first is observations at an autistic center in Ecuador. The second is interviews with teachers of the center to analyze how they approach emotional skills. The third is case studies to evaluate design strategies developed for autistic children. Key findings were identified from the methods based on social and emotional learning programs, and interior design theories like sensorial design and universal design. Based on the key findings, the research led to five implications for design. The first is to control the physical environment to improve attention problems. The observations and the interviews showed that attention is a main issue in the classroom. The second is social and emotional development within group activities. Group activities provide opportunities for children to learn how to develop problem-solving strategies. The third is emotional skills development within the environment. The design should promote learning about emotions and how to manage them correctly. The fourth is to prevent, approach, and overcome a crisis within the environment. The design should seek to prevent a crisis by providing calming elements for autistic children throughout the spaces. If a crisis occurs, elements and design strategies within the environment can support the user to overcome the crisis. The fifth is clear routine and activities within the environment. Sensorial and visual cues can help the children understand the routine of the activities. The research analyzes interior design beyond physical factors that can disrupt autistic children, it seeks to provide emotional, social, and behavioral support within the environment.

- *How Interior Design Can Support Inclusion of Venezuelan Students in The United States*

Eugenia Dittmar: Savannah College of Art and Design

Abstract: Every student needs to have social interactions and a sense of belonging, especially those who are far away from home. International students have difficulty adapting in foreign universities; the majority of them experience loneliness and isolation during this transition from home to a new country. This research focuses on how the interior environment may help international students come together, make new social connections, and exchange cultural knowledge. The rapidly growing migration of Venezuelan citizens is impacting the college student population in the United States. Because of the current political situation in Venezuela, more than 7.2 million people have left their homes and are experiencing more acculturation stress because of forced migration (Batalova & Gallardo, 2020). Many of these Venezuelan students are suffering from post-traumatic stress disorder and have migrated to the United States as refugees. This legal status of migration prevents them from returning to their home country; therefore, they experience compounded anxiety and guilt in looking for a better opportunity when their families are still suffering in their home country. These students are having a hard time adapting to the new culture in the United States and often feel they are not accepted or included. This study investigates this situation to understand how to improve the acculturation and adaptation processes of these foreign students with the support of interior design with targeted design elements for this unique population. Utilizing qualitative methods, the research focuses on Venezuelan students aged 18–25 in the United States. Interviews and surveys were conducted with over 80 participants. A thorough content analysis was completed, uncovering some major themes. The interviews with both end-users and experts, surveys, case studies, and observations led to certain findings dealing with the well-being and social connections of these students. The findings show that international students face difficulty adapting to the new lifestyle and their day-to-day routine in American culture. The analysis also shows the importance of the support facilities and programs offered to these students and a major understanding of why the resources are not being used. Students prefer a space where they can reduce their general stressors, where social interactions are enhanced, where they feel safe, included, and represented, where they can exchange cultural experiences and celebrate their culture, and where a better lifestyle is encouraged. The evidence-based information was analyzed and developed into a workable design intervention that supports Venezuelan students' acculturation processes in the United States. The interior's user journey emphasizes the user's perception, which alleviates different stressors for these students. The design interventions reinforce a connection with culture by offering different zones that are more public than private, the need to share communal dining, and the connection between the ritual of eating and the shared tastes of the home culture. The design proposal enhances the diversity and inclusion of the students enabling them to adapt and connect at their own pace with art expressions of their home country and connecting through interior finish materiality and textures. Finally, the significance of this study is that it accommodates the needs of Venezuelan students and students of other nationalities, where a mix of cultures is welcomed.

- *Modern Applications for Pre-Industrial Proportion Techniques*

Bryan S. Strickland: University of Tennessee at Chattanooga

Dana Moody: University of Tennessee at Chattanooga

Abstract: The profession of architecture went through several pedagogical shifts during the Seventeenth-Century. It was a time of enlightenment, where concepts of the past were put aside for approaches that were considered scientifically sound (Fletcher, 2006). This coincided with architects making the conscious effort to remove themselves from any direct involvement in building

their designs. They became planners and managers, purposefully distancing themselves from the craft of building (Lewis,1985). These two changes led to the demise of the use of traditional proportioning systems previously used in architecture (Fletcher, 2006). Today, modern architectural and design philosophies generally agree that proportioning systems are a basis for learning how to apply good aesthetics (Purdy, 2011); yet most educational textbooks merely define these concepts without showing how to apply them to the design process (Salingaros, & Masden, 2010). As a result of these shifts, entire generations of design students and educators are unaware of how to apply these traditional concepts to everyday design problems (Adam, 2010). The purpose of this study was to demonstrate basic application of pre-industrial proportioning systems found in modern design textbooks to 1st-year studio design problems through a series of demonstration videos. The Content Analysis research method was used to determine the most prevalent proportion systems introduced in modern design education. This analysis revealed the following 7 concepts:

- Concept 1 – Ratio as Equations
- Concept 2 – Proportion for Design
- Concept 3 – Pythagorean Ratios
- Concept 4 – Palladian Proportions
- Concept 5 – Golden Ratio
- Concept 6 – Regulating Lines
- Concept 7 – Classical Orders

The findings of this study were presented as a series of 7 videos. Each video discussed a proportion concept and demonstrated how to apply it to a basic design problem. This presentation encourages the viewer to look past the mere introduction of proportioning found in modern textbooks and provides understanding and guidance of how to implement traditional proportioning concepts into 1st-year design studios.

- *Supporting Handloom Weavers of India: Design to Improve the Workspace of Handloom Centers*
Shravya Nambiar: Savannah College of Art and Design
Mary Kerdasha: Savannah College of Art and Design
Ricardo B. Navarro: Savannah College of Art and Design

Abstract: India's working population is divided into the organized and the unorganized sector. According to the Indian economic survey conducted in 2019-2020, nearly 90% of them work in the unorganized sector (Social Infrastructure and Employment, 2022). This sector usually consists of farmers, domestic help, artisans, salesmen and construction workers, usually from the marginalized sections of the society. The handloom sector holds a unique position in the world of textiles considering its history, heritage, technique, design, and material-use. With the rise of industrialization and development of the organized sectors, the handloom industry which falls within the unorganized sector in India, faces tremendous pressure. As per the All-India Handloom Census (2019-20), "The number of people in the weaving sector, has declined from 6.5 million in 1995 to 3.5 million in 2023" which implies that this community has depleted by more than 50 percent. Although the Government of India has issued multiple initiatives to help increase funding and support for the weavers, they are not easily accessible by them. The working environment of these workers fails to comply with the Occupational Safety and Health (OSHA) laws, often creating hazardous working conditions. The workspaces within centralized units of weaving centers act like a production and manufacturing unit, rather than weaving collaborative centers. This creates a disconnect, making the weavers feel unmotivated and disrespected within their own communities. This thesis aims to address the issues of social justice and how these weavers struggle to survive within their workplace. It explores how interiors can help support the unorganized sector of handloom weaving community by improving

the physical environment they work in. It discusses how the built environment could facilitate collaborations, empower the weavers, and create community interactions while aiding the sustenance of this craft and culture in India. The research utilizes qualitative methods of expert interviews of textile designers and weavers, content analysis of video-documentaries and newspaper articles regarding the working conditions of various weaving communities across India, and case studies of existing handicraft centers. Interviews helped analyze that these centers need to become educative and collaborative, allowing weavers to gain a sense of control within space. Content analysis helped identify the need for flexible spaces to engage the community. Case studies helped to identify the missing elements of design within these spaces, building guidelines to create successful heritage and handicraft centers that incorporate good lighting, ventilation, ergonomics, and community connections. These findings were used to generate design implications that would assist in interventions. The implication emphasizes community interaction, empowerment through collaboration and education, protection through counselling and outreach programs and flexibility through working areas, ultimately addressing the Occupational Safety and Health. The application of design mainly aims to provide diversity of space. This study introduces a contemporary lens of looking at centralized weaving facilities that act as community work centers giving ownership to the weavers by incorporating new strategies derived from research.

- *Supporting the Social Health of Millennials & Gen Zs in the US Through Retail Environments*

Apurva Gupta: Savannah College of Art and Design

Ricardo B. Navarro: Savannah College of Art and Design

Abstract: As a consequence of the increasing rate of social loneliness among the Millennial and Gen Z generations, providing support to alleviate or prevent negative symptoms is imperative. Recent studies have indicated that the social support received in “third places” may be a substitute for the social support people lack elsewhere (Rosenbaum et al., 2007, as cited in Peavey, 2020). On the other hand, brick-and-mortar stores have been drastically affected by the retail apocalypse as the growth of e-commerce continues to shape the face of the retail industry (Helm et al., 2018). In response, a number of physical retail formats have undergone development however, specialty stores like boutiques strive to remain relevant due to the nature consumer segment and the effect of the interior environment on human behavior, this research aims to explore the influence of in-store atmospheric stimuli on customer experience, the importance of retail therapy on consumer well-being and the impact of an evolved boutique experience on the user’s social health. The literature review includes topics that describe the problems concerning the brick-and-mortar retail scenario in the United States along with the factors that contribute towards the future of retail. Furthermore, it encompasses approaches that focus on consumer responses in regard to various in-store stimulations in addition to an in-depth study of associated environmental and behavioral theories. The research adopted a mixed methodology that included a quantitative and qualitative approach while utilizing three tools to collect data that uncovered the research questions. First, online surveys were conducted focusing on the Millennial and Gen Z age groups to understand their expectations from physical retail storefronts as well as third places. Second, owners and managers of boutique stores in the United States were interviewed to obtain first-hand information about the industry. Lastly, several boutique stores and third places in the country were observed to note the behavioral traits of the consumers and the effect of the in-store atmosphere on their overall experience. As a result of rigorous thematic analysis of the raw data followed by the application of the triangulation method, the study revealed the following five implications for the design process; social health, spatial planning, multisensorial experiences, connection with nature and beyond buy. These design implications when referenced with the research questions provide guiding strategies that interior

designers can adopt to convert boutique stores into successful third places that positively impact the customer's social health. The application of these implications is presented across various programs within a retail store creating a prototypical design model. Designers can use this model as inspiration and select strategies based on the requirements of the brand. Consequently, the significance of the study is to cater to the needs of Millennials and Gen Zs, the rising consumer segment, while providing them with the necessary environmental support towards their social health which in turn contributes towards the growth of the brand.

- *Individualized Interior Programming for Skill-Building Homescapes for Adolescents with ASD*
Funmi Ade-Ojo: Savannah College of Art and Design

Abstract: The built environment has become a focal point for improving behaviors and the quality of life of people living with Autism Spectrum Disorder (ASD). Whilst extensive studies exist on how environmental elements can mitigate challenging behaviors and sensory dysfunctions, the active promotion of constructive behaviors within the built environment remains relatively understudied. This research explores the contribution of interior design to the advancement of diversity, equity, and inclusion among adolescents with ASD. The principal objective is to find out how the home environment can be programmed to enhance constructive behaviors which boost independence, social interaction, and autonomy - hence promoting inclusivity and outcomes in adulthood. This explorative study was carried out through a three-part qualitative research method process. Using the 'third-person' approach - as required with the special population, a narrative inquiry was carried out by conducting semi-structured interviews with five parents of adolescents aged 13-16 years old with ASD. Depth and context were added to the research by conducting a multi-disciplinary exploration through in-depth interviews with two behavior science professionals. A second phase involved a photo-ethnographic study using 'visual vignettes' of spatial uses, captured by parents of adolescents within their home environment. The third part, an online survey, broadened the participant pool size and served to probe and substantiate some themes that emerged from the other study methods. It was found that purposefully aligning the micro-spaces within the home with the adolescent's favorite activities by actively 'building' in reinforcements into the tangible home environment was deeply rewarding for the participants. This significantly increased motivation to learn and retain skills. Strong themes emerged on how much impact autonomy over spatial elements, activities, and even person-person interactions had on the adolescents' preference for and length of use of certain spaces within the home. 'Meandering' through these spaces through physical movement and spontaneous interactive activities was found to be self-stimulating for the adolescents. Like working the muscles of the body, inhabiting an environment with an abundance of environmental motivators and stimulators, autonomy and natural reinforcers, continuously brings spatial awareness and inquisitiveness, which fundamentally fuels learning and skill building. This study patently adds to the body of knowledge and has significant implications for interior design. Fundamentally, the study adds to the discourse by advancing the arduous task of bridging the gap between behavioral sciences and interior design. Furthermore, the often-overlooked use of interdisciplinary tools for residential design solutions is extensively explored in this study. Integrating elements of multiple disciplines into a simplified conceptual framework (an interrelationship of the Mimetic, Flexi, Core, and Meandering Zones) for a customizable environment, brings about equitable design and environmental-induced skill-building in adolescents with ASD. In culmination, this profoundly contributes to successful normative transitions to adulthood.

- *Designing the Next Food Hall for Picky Eaters to Promote Trying New Food*
Emily Svenningsen: Savannah College of Art and Design

Abstract Summary: Addressing how the built environment of public eating spheres impacts willingness to try new food for picky eaters and food-averse individuals, this research questions inclusivity in Food Halls and attempts to reinvigorate what it means to create hospital spaces for all.

- *Addressing the Needs of Cancer Patient Support Systems within Oncology Unit Designs*

Paige Ofield: Savannah College of Art and Design

Sarah Boehm: Savannah College of Art and Design

Abstract: At the core of Cancer patients' support exists their family, friends, and peers. These support systems play a significant role in the mental, emotional, and physical well-being of Cancer patients (Treiman, et al., 2022). In a recent study performed by Vollmer (2021), worsening health symptoms and a delayed recovery resulted from the separation of family members and paediatric Cancer patients during hospital visitations. This physical manifestation experienced by Cancer patients is evidence that support systems are vital to Cancer patient recovery. However, interior environment considerations within existing Oncology units made to support these individuals are considerably inadequate (Michalec, et al., 2018). This study seeks to understand the ways in which the interior environment of Oncology units can meet the needs of Cancer patients' support systems for the betterment of themselves, and ultimately, the patients. The implemented qualitative research methodologies conducted in this study included end-user interviews, expert interviews, and case study analysis. Furthermore, research of various user-related syndromes including Caregiver Burnout Syndrome have been conducted, which assisted in the understanding of how mental stress and anxiety can present physically within support systems and caregivers alike (Cleveland Clinic, 2019). The combined research findings suggest implications for design interventions that include: accommodations for long-term visitors, mental comfort considerations for all users, close patient and support system proximity, adequate sensory privacy, and various forms of physical privacy spaces for all. The findings can be leveraged to inform the design of Oncology units, leading to happier families, healthier patients, and an overall more positive experience for all.

- *Beyond the ADA: Enhancing Airport Experience for Individuals with Intellectual Disability*

Nehal Desai: Savannah College of Art and Design

Ricardo B. Navarro: Savannah College of Art and Design

Abstract: As a result of the passage of the Americans with Disabilities Act (ADA), increased awareness of the disabled and their needs has prompted most interior designers' consideration; however, ADA Standards for Accessible Design tend to focus on physical disabilities, not cognitive disabilities (Clouse et al., 2019). A subset of cognitive disabilities is intellectual disability (ID). ID can affect a person's cognitive and adaptive functioning, limiting their capacity to learn, reason, and perform a variety of social and practical tasks. ID can also co-occur with other cognitive disabilities such as Autism and ADHD, in addition to co-occurring with mental health issues like anxiety and depression (Patel et al., 2020). A major barrier to inclusion in the built environment for individuals with ID is the lack of accessible transportation, which results in their inability to access medical help, training, and education (Bodde & Seo, 2009). A recent report published by US Government Accountability Office (2021) stated that passengers with disabilities still face challenges at airports despite following ADA infrastructure standards, and on multiple occasions, individuals with cognitive disabilities have lost themselves in airports due to complex layouts, signage, and large distances. Therefore, there is a need to go beyond ADA Standards for Accessible Design and develop guidelines for addressing the unique needs of individuals with ID in airports. This study investigates the challenges individuals with ID face in airports to

understand how interior design can promote inclusivity and help individuals with ID navigate airports with ease, comfort, and independence. This study draws from a qualitative approach that relies on three distinct methods: target market surveys, expert interviews, and case studies. The key findings obtained through triangulation of the data collected led to implications for design that were categorized into three goals: 1. Spatial Independence – improving wayfinding and spatial awareness, 2. Sensory Stimulation – regulating sensory overload and, 3. Sense of Belonging – promoting social inclusion. Additionally, the findings helped determine the pain points for individuals with ID in airports which lead to the identified areas of interventions: 1. Transition - a gradual exposure to the airport, 2. The Break-Out - a rest space post checking in. 3. De-Stress - A decompression zone post security, 4. The Junction - An easier decision point, 5. Prep-up - Preparation for the flight journey. The three goals and the areas of interventions derived from this study may serve as a framework to improve existing airports to accommodate the unique needs of individuals with ID.

- *Exploring New Medical Workplace Design: Promoting Wellness and Reducing Job Burnout*

Lu Sui: Savannah College of Art and Design

Thea Scott-Fundling: Savannah College of Art and Design

Abstract: According to the report (2023) from Population Pyramid, in 2022, the Chinese pediatric medical industry served 32,510,231 young people and plays an essential role in public society. However, because of the current trend of "patient-centered" healthcare, the workplace design and physician experience are often overlooked. This research study investigates Chinese pediatric healthcare conditions and the recurrent problem of job burnout for physicians. Based on the survey (2019) from Ye et al. shows that 56.6 percent of Chinese pediatricians suffer from job burnout. This research investigates the high levels of the physical environment's negative impact on the mental health for workers in their workplace due to stress and working conditions. Based on the report (2019) by Zhang et al., 7.3 percent of Chinese doctors have depression problems, and 14.1 percent have anxiety issues. This design research seeks interior design interventions to improve the workspace design for optimum user experiences to reduce stress, trigger restoration and positive emotions for the users, and promote increased job satisfaction. The review of literature themes are considered for individual behavior, social connection, and work environment. Three research methods were selected to find new knowledge, including qualitative and quantitative research methods targeting pediatric medical staff users. The survey, interview, and case study triangulated key research findings that were analyzed to improve the user experience. This lead to design implications for the interior environment to address the problem identified from the data and the literature review. Some of the key findings include negative attitudes suffered by the staff because of mental and physical health issues, such as anxiety, stress, and visual fatigue, different preferences based on personalities, communication, and support needed in the medical community, sensory of the space and facilities setup could promote stress relief and build a connection for the private and shared areas. Based on these research findings, five goals were established with design implications for key user experiences. These user experiences are designed as interventions in the interior design of the workplace to evoke positive emotions and feelings with multiple interactive opportunities to create a relationship between the public and private areas with clear wayfinding. This evidenced-based design integrates theories such as Maslow's hierarchy of needs, PERMA theory of well-being, sensory design, attention restoration theory, biophilia, proximity principle, color theory, and acoustic principles. The design applications are located in an existing Chinese Maternal and Children Hospital within the conference room, nursing stations, lounge room, outpatient consulting room, physicians' office, and corridors. The significance of this research study is to expand understanding and practice for designing health and well-being in work environments and

specifically medical office design to prevent job burnout. Supporting the well-being of medical staff ensures a better healthcare system and human-centered environments in interior design.

Scholarship of Teaching and Learning

- *Connected and Engaged: An Asynchronous Interdisciplinary Service-Learning Framework*

Beth McGee: Georgia Southern University

Ryan Couillou: Georgia Southern University

Abstract: The benefits and challenges of service-learning as a high impact practice are well documented in higher education, such as contributing to academic learning, civic learning, and personal growth (Bringle et al., 2016). Fostering collaboration across disciplines is also highly desired in both Interior Design and Psychology (American Psychological Association, 2013; Council for Interior Design Education, 2022). Interior Design and Psychology are both diverse fields, yet share many similar learning objectives. This project looked at Interior Design and Psychology students working together to create evidence-based design guidelines for a community partner in a semester-long assignment with asynchronous and virtual collaboration that included biophilic design attributes (McGee et al., 2019; McGee & Park, 2021). To facilitate this, a multi-step process was evaluated through pre- and post-testing of students' perceptions. A significant difference was found in students' self view of being a valuable part of the community, being responsible for the welfare of the community, taking actions and making changes in the community, and being involved in activities that make people's lives better. COVID-19 was also reported to have impacted the overall student experience, yet the instructors' use of cloud sharing helped support asynchronous group work. The included scaffolded framework supported three diverse projects across three years to connect the classroom to real design problems. The results show that many service-learning projects that are design related could benefit from interdisciplinary collaboration and use shared experiences and language to better understand the client, project and another profession.

- *Enhancing Knowledge of Provincial Codes/Regulations within International Design Projects*

Selena Nawrocki: Valdosta State University

Kyoungim Park: Valdosta State University

Abstract: Interior design higher education becomes more complex and rapidly change. The CIDA professional standards are constantly being revised to contain contemporary factors and relevant issues associated with interior design practice. (CIDA, 2021). Our program is continuing to expand and accomplish demonstration of competency of students' understanding of CIDA Professional Standard 4. Global Context and Standard 16. Regulations and Guidelines. As a result, the program faculty developed international design projects to evolve students' international perspective and to enhance understanding of cultural diversities. They focused on enhancement of students' learning in the Junior and Senior level. The program faculty selected commercial projects consisting of a hotel project in Dubai, UAE for seniors and a flagship store project in Seoul, South Korea for juniors. The learning objectives for two studios are following: 1) To understand social and cultural diversities and make design decisions within these contexts; 2) To implement applicable federal and provincial codes and sector-specific regulations on the design project; 3) To demonstrate design decisions associated with sustainability and human wellbeing; 4) To gather information, conduct research, and apply research to design project.

The main objective was the understanding of social and cultural diversity within general information about country, city, and as well as physical conditions of the site. Each instructor

introduced core concepts of economic, geographic, and environmental conditions and the cultural and social norms of the project city to students. After the lectures, students conducted in depth researches about the brand they selected for the project, geographic and environmental condition of the city, literature review with evidence-based design, etc. They applied knowledges gained from course lectures and their own research on their final design decisions. During the project development stage for the two studios, a significant practical factor to consider was to implement the national/local building codes of the country. The major challenge of this project was to find the codes and regulations written in English for South Korea. The faculty found English codes and regulations for Dubai, UAE, but some codes and regulations needed to be translated into English. As faculty began to research building codes and regulations for each project location, they discovered each city's codes regulations had similarities and differences of the International Building Code, the NFPA codes, and the ADA accessibility guidelines. A life safety plan was developed to summarize the building codes and regulation of the project's city to teach students based on CIDA Standard 16. Regulations and Guidelines. After finishing the project, the all program faculty assessed evidences of student's work and discussed successes of the projects. Among the successes that we found: 1) Understanding of cultural diversity: students demonstrated the space design and the different architectural characters/features based on the life style, the socio-cultural norms, and religious customs of the project city; 2) Practice of local codes and regulation: this provided enriching learning experiences to students about differences of IBC, NFPA, ADA, etc. Upon completion of these projects, students developed a heightened global understanding and application of building codes and regulations.

- *Student Outcomes CIDA Standard 4 Global Context for Programming Phase of Studio Courses*
Johnnifer Brown: Western Carolina University

Abstract: Responding to the needs of all humans was part of the 2014 CIDA (Council for Interior Design Accreditation) discipline commitment with a Standard 2 called Global Perspective for Design that specified Interior Design programs provide “opportunities for developing knowledge of other cultures” (CIDA, 2014). Interior Design faculty and programs are challenged to advance beyond teaching about other cultures. Students need to discover the meaning of culture within a context by gaining knowledge of diverse people, customs, and social organizations. Defining authenticity of how people live, cook, eat, speak, pray, socialize, dress, and work can allow students to take ownership and responsibility of their knowledge base within studio projects (Hadjiyanni, 2013). CIDA's 2022 core values includes “diversity, equity, and inclusion to the human experience and valuing the importance of human belonging, dignity, and justice.” Standard 4 on Global Context includes interior designers have a global view and consider social, cultural, economic, and ecological contexts in all aspects of their work. Their work must show a level of understanding of how social, economic, cultural, and physical contexts inform interior design, how designers consider the inter-dependence of multiple contextual elements related to a design solution and their holistic, potential impact on the users (CIDA, 2022). The purpose of this research is to align CIDA's core values and standards on Global Context within a longitudinal study in a Jr. Studio. Students in the course were assigned a mixed-use project based on their culture of choice. 2020 research showed cultural understanding using 19 student “takeaways” on 14 cultural client profiles and personas where 21% informed their programming in the design process. 2021 research showed cultural understanding using 24 student “takeaways” on 19 cultural profiles and personas where 34% informed their research portion of programming in the design process. These results lead to a 2022 Cultural Survey for 16 students prior to schematic design and a revised final rubric focused on CIDA's 2022 Global Context Standard 4 to provide a deeper level of understanding within their programming phase. The Cultural Survey answered the following questions: Sensitivity to cultural needs encourages the designer to plan with focus

on the unique cultural characteristics of a client (Piotrowski, 2016). The survey and rubric confirmed learning and proved design intent to educate stakeholders and users on various cultures and be cautious to create safe spaces. These assessment tools challenged their critical thinking in the programming process through evidence-based research in traditional customs, architecture & interior spaces, textures of sustainable materials, language and symbolism, and an awareness of increased poverty in the social, economic, and physical contexts that directly aligned with the 2022 CIDA Global Context and standards. This could advance the level of understanding into student application and could be a tool used in all studio courses by interior design faculty as they implement culture into interior design pedagogy.

- *Innovative Diverse Historical Discoveries within the Commercial Design Industry*

Johnnifer Brown: Western Carolina University

Abstract: The demand of innovation calls for a diverse pool of ideas, a diverse project team, and a diverse pool of ideas that will result in better experiences for everyone involved in the interior design process (Emrich 2005). As our world and society evolves in culture, diversity, equity and inclusion, our historical design body of knowledge needs to shift. Interior design educators need to expand beyond the standard of historical awareness and bring the unknown stories of the design world into the classroom. This research study uses CIDA's history standard 10 toward a senior level course assignment called "Design Discoveries." The goal of this research is to expand the student body of knowledge through researching diverse commercial designers based on their race, culture, and body of work with a collaborative focus. Within this Senior studio, 24 students were assigned either an architect, designer, or artist and given a date to research, present and share collaboratively. They chose from African, Asian, Islamic, Mexican cultures, created a location for a commercial office, hotel, restaurant, or hospitality space. Each space should include a design discovery influence. Market and location can strongly influence how a project succeeds and lead towards diversity in design (Knapp 2004). The collaboration research of shared presentations would give students a large body of historical knowledge in the areas of art, architecture, interior design, and furniture. Students used this body of knowledge to inform their commercial projects and responded to the assessment indicators:

1. Visually describe the person's life, education, and field of interest.
2. List three to five ways they contributed to the interior design/architectural industry.
3. Show how their contributions were included in a commercial interior design project.
4. Discuss what intrigued you most about this design discovery and or personal impact.

CIDA's professional standard 10 on the topic of History states, "Interior designers are knowledgeable about the history of interiors, architecture, decorative arts, and art. Student learning expectations include students demonstrate "awareness" of the basic context and framework of history as it relates to art, decorative arts, and material culture. Students must "understand" the basic context and framework of history as it relates to interior design, furniture, architectural styles, and movements. Students must also understand the social, political, and physical influences affecting historical changes in design of the built environment" (CIDA 2022). Kellogg's Design Intelligence Knowledge report mentions cultural history as the historical basis within projects that delves into material and social culture with the architectural surroundings as a backdrop. Collaborative working in a studio allows learners to work together across discipline, space, time, and culture to solve complex problems (Ankerson & Pable, 2008). Interior Design curriculum introduces historical content during freshman or sophomore year and commercial studios are taught in senior year. Since the 19th and early 20th centuries, architects such as

Wright & Eames influenced the commercial building industry (Piotrowski, 2016). Final rubric assessment resulted in the students designing commercial spaces comprised of 40% Mexican Restaurants, 38% African Hotels, 16% Japanese Businesses, and 12% Japanese high-end Retail. 85% of students used furniture, artwork, design concepts, and interior architecture to influence their projects. Out of that percentage, 50% learned about a designer's racial, social, and political challenges entering or maintaining in the commercial design industry and their resilience to persevere which exceeds CIDA standard 10.

- *Tales from two cities in Artificial Intelligence implementation in design courses*

Daniel Ronderos-López: Universidad de los Andes

Nicolas Pinzón: University of Miami

Abstract: As digital technologies spread, the design industry shows signs of significant change. The decades ahead promise to bring even more dramatic disruptions, such as robotic production, automation, and artificial intelligence outsourcing, that could replace human labor in creative professions. These are no longer hypothetical predictions but unavoidable facts for the following generation. These notions are not a pessimistic critique but rather an opportunity to transform how learning culture could change. This presentation looks at two teaching and learning methodologies in two different contexts. Both of them coincided, without any influence from one another. One took place in Bogotá, Colombia in an undergraduate interior design course that used AI tools for language processing, image generation from natural language descriptions, and model-based render engines to enhance design thinking and project design procedures. In this course prompt redaction became a fundamental tool to synthesize conceptual ideas and arrive at conclusive parameters to drive decision-making and enable students to rapidly filter design alternatives by creating hundreds of rendered visualizations and project options. In Miami, postgraduate architecture students were tasked with investigating the capabilities of AI image-generating engines to assess their potential for usage in architecture projects. In this case, the rendered images became the keystone to corroborate effective communication with the AI and recreate hand sketching processes using prompt redaction. Furthermore, to develop filtering parameters to enhance conceptual visualization. Lastly, to translate material and spatial characteristics into 3D models. Both exercises developed similar methodologies to generate decision-making procedures by ensuring concise and clear language to create rendered images that showed students their ideas from an early and primal stage to a more robust and conceptual-driven one. Moreover, the students could easily document the evolution of their proposals and the effects of parameter creation to iterate and arrive at the most sophisticated solution since all AI tools utilized create an immediate archive that enables users to go back to previous versions of their work. Twelve students in Miami and nineteen in Bogotá took surveys to measure the impact of the exercises. The results showed that the postgraduate students were more familiar with AI and saw that the main benefit of these tools is the potential to speed up design processes. While the less inexperienced undergraduate group perceived AI tools as aids to kickstart project research and to accurately communicate project concepts and intentions. The discussion on whether AI can change the discipline of architecture is divided within the groups. While some believe these tools can help the fields of architecture and interior design, others are skeptical, fearing that it will make designers complacent and ignore the context in which a project is or may be created. As a final thought, in both contexts, a single conclusion arose: AI should be viewed as a tool for improving and streamlining the design process, allowing designers to focus on more complicated and creative tasks rather than a replacement for human creativity.

- *Rolling the Dice on Good Design: adding chance to the assignment parameters*

Lauri Self: University of Alabama

Abstract: In the first sophomore studio, the students must learn to make good design decisions. However, without knowledge of styles, colors, and methods, this can leave today's students not knowing what they do not know. The problem instructors face is creating a pedagogical system to increase design knowledge for Generation Z students who prefer to learn with trial and error, experiential, and problem-solving pedagogical practices (Albadi & Zollinger, 2021). A solution is an analog gamification of the project's programming by adding controlled chance into the project design. Teaching color words and furniture names can be accomplished through testing, but Generation Z students learn better by doing, not through memorization (Albadi & Zollinger, 2021), as in previous generations. Generation Z also seeks rewards differently than the previous generation. By gamifying the project content, the students are more engaged in the classroom experience and have improved learning with increased motivation (Subhash & Cudney, 2018).

Gamification can be as simple as drawing from a hat, rolling dice, or spinning a wheel (Hsiao-Cheng (Sandrine) Han, 2015). The items that the students "win" are parts of the project's programming, like the client's favorite colors and inherited furniture pieces that provide some furniture history knowledge. Each of these winning items can be controlled by the instructor and designed to teach specific color vocabulary, correct period furniture, or a better understanding of how people live. The gamification of the programming can create color combinations that the student would not have chosen for themselves and increases their design knowledge and experience. Ultimately, adding chance to the design project opens a discussion of not simply the names of the furniture but what makes them different and what techniques were used, like gilding, fretwork, or marquetry. Adding chance removes prescriptive project parameters and allows the student to explore the design world while instructors guide the knowledge. Rolling the dice on good design offers students a chance at transformative design.

- *Exploring the Impact of Lighting and Furniture in Higher Education Classroom Environments*

Robert McDonald: University of Southern Mississippi

Gallayanee Yaoyuneyong: University of Southern Mississippi

Abstract: Universities worldwide are continually looking for ways to improve the quality of education they offer to their students. One of the ways that universities do this is by investing in extensive renovations and new construction projects to upgrade their facilities. These efforts typically involve upgrading flooring, repainting walls, purchasing new furniture, and updating lighting. The goal is to create comfortable and collaborative environments by redesigning outdated classrooms and investing in modern facilities. Previous research has demonstrated the significant impact of classroom environments on students' mental well-being, perceptions, and learning performance in Pre-K–12 students (Barrett et al., 2015; Suleman & Hussain, 2014; Han et al., 2019). However, there is limited research on the impact of classroom environments in higher education (Hill & Epps, 2010; Siegel, 2003). This research gap prompted a recent study two-part study exploring the effects of higher education classroom environments on students' mental well-being, learning performance, and perceptions of their learning experience. In part one of the study, luminance levels were measured in selected conventional or active-learning classrooms in a University in the Southeast United States. Results confirmed findings from the literature, identifying two distinct lighting zones (golden zones and shadow zones) that impact classroom performance (Park & Choi, 2014). This finding is significant because it provides insight into the lighting options most effectively promote student learning. Part two of the study

examined student perceptions of their learning environments in either new or renovated classrooms with various conventional or active learning designs. The study found that classroom lighting, temperature, daylight, and visibility significantly impacted students' perceived learning performance. Most students reported adequate artificial illumination in classrooms but suggested that sunlight could sometimes be too bright. Findings indicated that investing in updated classroom design and lighting can significantly enhance student well-being, perceptions, and performance. Overall, this research highlights the importance of considering the impact of classroom environments on students in higher education. By investing in updated facilities and classroom design, universities can create comfortable, collaborative environments which promote student success. It is crucial for universities to prioritize student well-being by creating conducive learning environments that are free from distractions, well-lit, and well-ventilated. Institutions investing in modern facilities and updated classroom designs convey that they care about their students' academic success and well-being. Such institutions are better equipped to attract students, retain them, and prepare them for the competitive job market. In conclusion, the study findings demonstrate that classroom environments are critical in promoting student success in higher education. Institutions that prioritize the learning environment by investing in modern facilities and updated classroom designs create environments that foster collaboration, comfort, and optimal learning. It is imperative for universities to take these factors into account when making decisions about infrastructure development to ensure that students have the best possible environment to learn and succeed.

- *The Effects of Game-Based Learning on Collaboration in a Design Studio: An Empirical Study*
Ying Yan: Auburn University

Abstract: Design education emphasizes the intersection of scientific and artistic disciplines, resulting in a highly interdisciplinary approach. Thus, design educators frequently encounter complex and diverse learning scenarios that can be challenging to tackle effectively (Ghajargar & Bardzell, 2019). Interior design is a collaborative process that demands a participatory approach from different parties to achieve a high-quality and cost-effective outcome. Besides technical skills, interior designers should be able to interact with architects, engineers, construction workers, and clients to complete the same goal in practical work. Therefore, collaboration is an important aspect of interior design education. It allows students to enhance their social interaction and interpersonal skills, share ideas, and develop teamwork skills essential in the design industry (Okolie et., 2022). However, this study (2018) found that college students may encounter obstacles to effective collaboration when working in groups because of limited collaborative skills, free-riding, competency status, and friendship. Unfortunately, collaboration may also be an under-developed aspect of design education (le et al., 2018). To address this issue, game-based learning (GBL) is an educational approach that utilizes games or game-like elements with specific learning goals to engage and motivate learners in acquiring knowledge, skills, and attitudes (Plass et al., 2020). GBL using educational escape rooms has become popular in the education system; educational escape rooms may help students gain motivation, teamwork, and social interaction skills, and learn from failures in the game. The purpose of this study is to explore the impact of an educational escape room on students' collaboration, focusing on a first-year interior design studio at a land-grant research institution. The study's findings suggest that educational escape rooms may positively impact students' attitudes and outcomes in collaborative learning scenarios. Further, learning from failure in the game may help free them from the failure-frustration cycle. The game provides an opportunity for meta-cognition – thoughtful reflection on

what was learned – because students can discuss strategies with others, get feedback, verbalize what has gone wrong, and try new solutions.

- *Changemaking: Connecting Interior Design & Social Impact*

Anna Ruth Gatlin: Auburn University

Abstract: Interior design impacts all humans who live, work, or recreate indoors. Designed environments have been studied extensively (Altman, 1975; Colenberg & Jylha, 2022), as have the influence of philanthropies and non-profits on community well-being (Dilworth, 2022), but less work has been done exploring the connection between interior design and social impact and their mutual influence. As the world becomes more connected, the nonprofit sector experiences growth (Nonprofit Finance Fund, 2023) and the workforce prepares to experience a generational shift, its critical to understand the intersection of interior design's impact on social services and nonprofits, who are often on the frontline of crisis response. Its also critical to explore the reverse: how engaging with nonprofits and philanthropies can influence design students' perspective of their place in the world. Most current college students are part of Generation Z, which is swiftly coalescing into a generation of post-pandemic changemakers, using issues as inspiration to create a more equitable future—doing work that makes a difference is a major motivator for Generation Z (GenZ) (Brown, 2023). The question this presentation asks is: can interior design (ID) curriculum respond to GenZ's desire to make the world better by engaging in cross-disciplinary efforts with philanthropy & nonprofit studies (PNPS) units at the studio level? The presentation will (1) use a fully-integrated cross-disciplinary (ID & PNPS) study abroad trip to Scotland as a case study, presenting development and instructional methods, (2) unpack the integrative and reflective pedagogical approaches the instructors adopted for this study abroad, (3) apply a reflective pedagogical approach to the lessons learned over the course of the trip, and (4) look forward to how design for social impact will be woven into a junior-level commercial interior design studio in Fall 2023. Collateral from students about the trip's influence on their academics, life, and future will also be included as evidence of changemaking in their perspective. Evidence of the author's work to reimagine a junior-level commercial interior design studio to have an emphasis on the intersection of philanthropy and design will also be presented for feedback and critique. This scholarship of teaching and learning is both exploratory and transformative: this type of fully integrated cross-disciplinary academic work is significant as it has not been done in the units' college prior to this trip. In fact, the fields of interior design and philanthropy & nonprofit studies have not collaborated much at the institutional level or in scholarship. GenZ is coming of age in a world that is rapidly changing: the pandemic exacerbated disparities across all sectors and emphasized the need for ongoing social engagement, and the nonprofit sector is on the frontlines. Supporting our current student body by engaging them in work that meets accreditation standards while igniting their passion for using space to change the world is imperative if we, as interior design educators, want to move forward with them. Robust discussion about these topics at conferences is integral to that process, and space will be provided during the presentation to begin those conversational moments.

Creative Scholarship – Design as Art

- *Tribute to Willow Oak Tree (circa 1900 – 2016)*

Tad Gloeckler: University of Georgia

Abstract: “The Willow Oak Tree Exhibit provides an occasion to exhibit art inspired by a tree that was over 100 years old when it was taken down in 2016. The tree served as beacon and greeter to gallery visitors since 1974 when the property became a public art facility. The art staff is inviting artists to create a piece for the show. Objects should be constructed in whole or in part from the salvaged lumber. The charge is broad: anything that is inspired by the tree, or the unique connection between tree and gallery.” (Tesser, 2021) “A heritage tree can really define a community. How do you see your work honoring this tree?” (Tesser, 2021) I honored the Willow Oak Tree with a story of six families that embraced the tree’s existence. My Willow Oak Tree project maps an historical timeline with a fictional narrative of six generations of families that interacted with the tree over a 120-year period. Each family designed and built an artifact (a tree swing) for the Willow Oak Tree. The swings were inspired by an art and/or design movement (Dada, De Stijl, Structure as Ornament, Minimalism, Memphis, CNC Technology), that coincided with the time of artifact creation. One artifact is built at full-scale and constructed of the salvaged wood from the Willow Oak Tree. All of the other artifacts are built to a scale of 1:6. The scale model artifacts outline an imaginary narrative history of the tree. These models occupy space under a canopy created by boards from the Willow Oak, just as full-scale original artifacts would have been sheltered by the thriving oak tree. “To what extent did the physical state of wood, i.e., partial decay, influence the direction of your piece?” (Tesser, 2021) The quality and quantity of willow oak wood that I received critically impacted ideation and design. The small supply (essentially two boards) of wood was cupped, warped, split, rough sawn, and in some locations, structurally compromised by decay. Preparing the boards for any kind of complex assembly or joinery would have resulted in an unacceptable forfeit of material. The wood was imperfect; it was also beautiful! Understanding and embracing this duality directly informed project conception:

- honor and embrace the Willow Oak Tree’s existence.
- simultaneously feature flawed condition, and attractive surface of willow oak wood.
- technically manage the imperfect quality of willow oak wood.
- give a very small supply of willow oak wood great hierarchy, yet still expand scope and complexity of the project.

My project features the two salvaged boards I received from the Willow Oak Tree. The willow oak boards were barely altered from the condition received - boards were slightly trimmed to match their lengths and widths, and four ½” diameter holes were drilled in each board. The combination of the two willow oak boards could structure the live load of a seated person. Rope traverses the underside, and long-axis, of the wood for additional structure; then moves upward through four openings to align and stabilize the two boards (no glue).

- *Pentamental*

Anna Ruth Gatlin: Auburn University

Abstract: Women in academia who also happen to be mothers faced disadvantages even before the COVID-19 pandemic disruptions (Minello et al., 2021). Pre-pandemic, gender disparities existed both at home (division of household labor and childcare) and at work (women historically have a harder time achieving the same as men at all levels of academic careers); the pandemic only exacerbated these disparities (Minello et al., 2021; Murgia & Poggio, 2019). When the world

went into lockdown, the home became office, schoolroom, cafeteria, daycare, and any number of other identities, and the person most likely to shoulder the brunt of these roles were working mothers (Minello et al., 2021). Working mothers reorganized their priorities more than working fathers, and in academia, where much of the work requires a quiet background (e.g. conducting class or recording lectures) and stretches of uninterrupted time (e.g. working on manuscripts, collecting/analyzing data, grading), this was especially difficult when young children were present (Minello et al., 2021; Frederickson, 2022). This had a direct influence on the careers and the mental health of many working academic mothers (Minello et al., 2021). The career impact is still being documented and reported on, but the mental impact of the heavy load and the accompanying loneliness is less explored. This creative scholarship unpacks those disparities, the mental load, and the many roles of academic mothers via critical autoethnographic lens through the medium of an analogue collage. The medium was selected for this work intentionally: it is a physical artifact constructed using simple methods to unpack complex concepts. During the pandemic, interacting with anything/one outside of your home was done dissociatively...digitally. Humans desire physical engagement, and this collage was created as a response to the digital isolation, constructed using only physical techniques. It connects to the primal self, expressing emotional, cognitive, and physical engagement with the world utilizing an art form developed in Asia (Hajian, 2022) and advanced by the Cubists, including Picasso, who used collages to disrupt the world of fine art (Leighton & Groom, 2022). This autoethnographic work explores the interconnected identities, influences, and expectations of an academic working mother, connecting all parts of Self into a single artifact that is layered upon itself, hiding and revealing pentimento that forms both the shape of a landscape and reveals the hidden thoughts of self, doubt, love, loss, disappointment, and achievement. The collage was created by layering paint with deconstructed artifacts of visual culture to imply a landscape: a metaphor for life and mother. Landscapes are ubiquitous and are often taken for granted—as we encounter them, decorate with them, and alter them—but looking closer we see that landscapes are complex and layered, like people, and the pentimento revealed shows depth and connections the Gestalt does not. In this work, the pentimento reveals a mental landscape—a pentimental—of one academic mother. The presentation will conclude by asking academic mothers present to reflect on their own pentimentals, and to see what is revealed when they pause and take a moment to look.

- *Semiotic of Space: The Shape of Faith*

Anna Ruth Gatlin: Auburn University

Abstract: Buildings and their architectural styles, materials, and configurations serve as an artifact of a point in time, illuminating political, social, economic, and philosophical priorities of people and places (Seymour & Peace, 1993). Studying architectural history and architectural styles not only informs us of those priorities and allows us to appreciate how our knowledge allows us to interpret the past, but also allows us to look forward to the future (Seymour & Peace, 1993). Theological architecture is no different: since the Middle Ages, churches have used theological architecture to attract and retain congregations and draw attention to God through beauty (Beghin, 2020). The architect/master builder of the structure, in partnership with church leadership, used the building as a tool to “reflect God’s glory in the aesthetic decisions made for each worship space” (Beghin, 2020, p. 2). We can see this approach used throughout architectural history, especially with Gothic cathedrals and their emphasis on sculpture, stained glass, and impressive scale, to Baroque churches with their emphasis on materials and painting, to Christopher Wren-designed churches after London burned, to modern theological architecture

(Hammond, 1961; Visco, 2019). This creative scholarship examines the architecture of three different Presbyterian churches in three different cities in three different centuries and three different architectural styles. The first, St. Giles Cathedral in Edinburgh, Scotland, was initially completed in 1124 in the Romanesque architectural style, though it was substantially renovated (only fragments remained) during the 14th-16th centuries into the existing building, a Gothic-inspired cathedral. It was the parish church of John Knox, who founded the Presbyterian Church of Scotland in the late 16th century. The second church, First Presbyterian Church EPC (FPCEPC) [identifier redacted], State, was built in 1850 in the style of Christopher Wren-era English Baroque. The third church, First Presbyterian Church (FPC) [identifier redacted], State, was built in 1913 in an Eclectic style. This work uses semiotics—exploring how meaning is made and communicated—as a framework for analyzing religious structures and design choices. It takes the form of field sketches executed in pen in situ at each site. Staedler pens in varying nib sizes were used on bond paper. St. Giles Cathedral was selected as it is the seat of the modern-day Presbyterian church. FPC and FPCEPC were selected as they are the primary Presbyterian churches in the two cities where the author lives and works: they also represent two different centuries and styles, providing opportunity for rich analysis. Architectural sketching has been an accepted form of architectural research since the Renaissance (Hill, 2006); these works will each be analyzed in the context of their era, style, and site. The exercise of sketching and analyzing provides opportunity for growth as designers and educators, in part because the sketcher must analyze the subject to distill it to the forms and features significant enough to be represented. The presentation will engage audience members in live analysis, similar to a studio critique, prompting evaluation of the design choices, drawing execution, and choices made on forms and features represented.

Panel

Scholarship of Design Research

- *HCD-Mapping MATRIX-4-INTERIOR DESIGN*

Christine Wacta: Georgia Southern University

Katie Snyder: Georgia Southern University

Abstract: We are witnessing our built environments go through increasingly complex stages of transformations (spatial, physical, social, geographic etc.), which directly affects the user's experience in the use of contextual space (public or private). These transformations often result from the emergence of new forms and functions that influence and/or influenced by space dynamics. "By one popular estimate, 65% of children entering primary school today will ultimately end up working in completely new job types that do not yet exist. The technology prowess of the 21st century has facilitated a massive collection of data that permits the consideration of more varied sources of essential data in interior design. The use of GIS "big data"s requires us to facilitate greater contextual knowledge in the design studio. It also helps facilitate work in transdisciplinary projects. This proposal suggests that SMART-cities emerge from Smart-Citizens, through the systemic symbiosis in the users' embodiment of the space, materialized by the dynamics of ephemeral chorographical. These captures of human traces with emotions are very important parts of understanding essential Human centered design components; it is why this proposal develops a complementary layer of users' emotions as an essential component and part of interior design space planning. It focuses on the development of a geospatial capture

application that facilitates geoscience integration into Interior Design processes. The augmented built environment benefits from the emergence of A/R, M/R, V/R, and the Internet of Things. With the feasibility of crowdsourcing, a 3D global replica of the built environment is now possible in minutes with the support of depth sensors on iOS and android devices. By integrating SLAM (Simultaneous Localization and Mapping) algorithms into devices with depth sensors, interior designers can obtain a highly accurate scan of indoor and outdoor environments at consumer level. This opens myriads of other venues and opportunities to reinvent the process of space and place making. Our project is developing scenarios that facilitate the creation of activated-responsive space design that can sense, gauge, capture human movement and space usage. It is the reason for this project that intends to intersect ArcGIS applications with machine learning and automated robotic sensors to better respond to Human needs in the environment. Part of this involves testing individual/collective data collection; (e.g., imagery, tracking, point clouds), to develop systems capable of identifying patterns by capturing and remembering spatiotemporal reactions, sensations (emotional and behavioral), human interactions, and reusing computed data to make predictions, decisions, and ultimately perform informed actions with speed and accuracy. This is part of a transdisciplinary framework focused on space planning and social life, which seeks to understand how people interact with the interior in contrasts with exteriors by mapping and quantifying non-tangible and ephemeral events with the complex ecosystem.